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

PM 8/7 (1)

Mesures phytosanitaires par marchandise Commodity-specific phytosanitary measures

PM 8/7 (1) Populus

Specific scope

The purpose of the EPPO Standard on *Populus* is to recommend to EPPO Member Governments the phytosanitary measures which they should use or require for *Populus* 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 (PRA) 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 2017-09.

1. Plants and commodities concerned

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

The Standard concerns the commodities that are regularly traded, i.e. wood (including untreated wood in manufactured articles), bark, plants for planting and cut branches. Wood packaging, although not a commodity *per se*, is also included. Plants for planting are considered in general at the genus level. *Populus* 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 certificate, every genus present should be specified in the case of mixed consignments. Such consignments should satisfy all the requirements for every genus present.

1.1 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 on international movement of wood products and handicrafts made of wood (under development).

Harvesting residues: wood material consisting of any parts of trees left on the site after round wood harvesting (EPPO Technical Document no. 1071).

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 Technical Document no. 1071).

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 Technical Document no. 1071).

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 Technical Document no. 1071).

Post-consumer scrap wood: a wide variety of wood material from ex-commercial, industrial and domestic use made available for recycling (EPPO Technical Document no. 1071).

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, 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.

1.2 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, and 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 *Populus* recommended for regulation

This Standard relates to the EPPO A1 and A2 pests for which *Populus* can be a significant pathway of introduction (EPPO Standard PM 1/2), including pests which EPPO recommends for regulation. 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 (http://www.eppo.org), in *Quarantine Pests*

for Europe (EPPO/CABI, 1997); see Bulletin OEPP/EPPO Bulletin for more recent additions to the lists.

2.1 Pests of Populus

A1 pests	A2 pests
Insects	Insects
Anoplophora glabripennis	Aeolesthes sarta
Apriona cinerea	Anoplophora chinensis
Apriona germari	Lepidosaphes ussuriensis
Apriona japonica	Megaplatypus mutatus
Aromia bungii	Popillia japonica
Choristoneura conflictana	Trichoferus campestris
Choristoneura rosaceana	Xylotrechus namanganensis
Malacosoma americanum	
Malacosoma disstria	
Oemona hirta	
Fungi and fungus-like	Fungi and fungus-like
organisms	organisms
Sphaerulina musiva	Melampsora medusae

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

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

New emerging pest situations, based on PRA, may lead to the addition of pests to the Standard.

3. Commodity-specific phytosanitary requirements for *Populus*

Each pest recommended for regulation has been considered by the EPPO Working Party on Phytosanitary Regulations and pest-specific phytosanitary requirements (PAPRs) 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 *Populus*. 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 *Populus*.

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 may apply are specifically identified in this section, and the corresponding requirements are preceded by the following phrase: 'subject, where appropriate, to special procedures under transitional arrangements'.

3.1 Regulation of Populus pests

3.1.1 A1 pests

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

3.1.2 A2 pests

For EPPO A2 pests recommended for regulation (see Section 2), EPPO countries where a given A2 pest does not occur, or where it is not widely distributed, are recommended to regulate it as a quarantine pest. If they do, they are recommended to make the requirements specified for this pest.

4. List of recommended phytosanitary measures

4.1 Requirements for Populus

In the following:

When 'OR' or 'AND' are written in capitals this separates 2 sections of options.

When 'or' or 'and' are not in capitals they separate only

one option from another.

PC is 'phytosanitary certificate' and RC is 're-export phytosanitary certificate'.

Plants for planting of Populus	PC and, if necessary, RC
Plants for planting of <i>Populus</i> other than seeds and plants in tissue culture	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 virus-like organisms, or subjected to appropriate treatment to eliminate such organisms
Plants for planting of <i>Populus</i> in tissue culture	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
Plants for planting of <i>Populus</i> with soil and growing medium attached or associated	Grown according to EPPO Standard PM 3/54
Plants for planting (except seeds) of Populus originating in countries where any of the following pests occur: Aeolesthes sarta Anoplophora chinensis Anoplophora glabripennis Apriona cinerea Apriona germari Apriona japonica Aromia bungii (minor) Choristoneura conflictana Choristoneura rosaceana Lepidosaphes ussuriensis Malacosoma americanum Malacosoma disstria Megaplatypus mutatus Melampsora medusae Oemona hirta Popillia japonica Sphaerulina musiva	Free from the relevant pests listed in the left column

Trichoferus campestris	
Xylotrechus namanganensis Plants for planting (except seeds) of Populus originating in countries where any of the following pests occur: Aeolesthes sarta Anoplophora chinensis Anoplophora glabripennis Trichoferus campestris Xylotrechus namanganensis	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
Plants for planting (except seeds) of <i>Populus</i> originating in countries where <i>Apriona cinerea</i> , <i>Apriona germari</i> or <i>Apriona japonica</i> occur	Pest-free area for relevant pests listed in the left column or Pest-free site of production under protection for <i>Apriona cinerea</i> , <i>Apriona germari</i> and <i>Apriona japonica</i> AND Transported outside of the corresponding flight periods or Not transported through areas infested with the relevant pest or Transported closed, to prevent infestation
Plants for planting (except seeds) of <i>Populus</i> originating in countries where <i>Aromia bungii</i> occurs	Pest-free area for <i>Aromia bungii</i> or Place of production freedom for <i>Aromia bungii</i> under complete physical iso lation, and with regular inspections of the crop and inspection of plants prior to export or Site of production freedom for <i>Aromia bungii</i> under complete physical isolation, and with regular inspections of the crop and inspection of plants prior to export AND Transported outside of <i>Aromia bungii</i> flight period or Not transported through areas infested with <i>Aromia bungii</i> or Transported closed, to prevent infestation
Plants for planting (except seeds) of <i>Populus</i> originating in countries where <i>Choristoneura conflictana</i> or <i>Choristoneura rosaceana</i> occurs	Pest-free area for Choristoneura conflictana and Choristoneura rosaceana or Grown according to EPPO Standard PM 5/8 or Appropriate fumigation, details to be specified on the PC AND Transported outside of Choristoneura conflictana and Choristoneura rosaceana flight periods or Not transported through areas infested with Choristoneura conflictana and Choristoneura rosaceana or Transported closed, to prevent infestation
Plants for planting (except seeds) of <i>Populus</i> originating in countries where <i>Sphaerulina musiva</i> occurs	Pest-free area for <i>Sphaerulina musiva</i> or Place of production freedom including its immediate vicinity for <i>Sphaerulina musiva</i> confirmed for the last growing season
Plants for planting (except seeds) of <i>Populus</i> originating in countries where <i>Lepidosaphes ussuriensis</i> occurs	Pest-free area for <i>Lepidosaphes ussuriensis</i> or

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Plants for planting (except seeds) of <i>Populus</i> originating in countries where <i>Malacosoma americanum</i> or <i>Malacosoma disstria</i> occurs	Place of production freedom (including throughout the previous season) for Lepidosaphes ussuriensis Pest-free area for Malacosoma americanum and Malacosoma disstria or Grown according to EPPO Standard PM 5/8 or Appropriate fumigation, details to be specified on the PC AND Transported outside of Malacosoma americanum and Malacosoma disstria flight periods or Not transported through areas infested with Malacosoma americanum and Malacosoma disstria or Transported closed, to prevent infestation
Plants for planting (except seeds) of <i>Populus</i> originating in countries where <i>Megaplatypus mutatus</i> occurs	Pest-free area for Megaplatypus mutatus or Pest-free place of production for Megaplatypus mutatus and buffer zone of 200 m AND Transported outside of Megaplatypus mutatus flight period or Not transported through areas infested with Megaplatypus mutatus or Transported closed, to prevent infestation
Plants for planting (except seeds) of <i>Populus</i> originating in countries where <i>Melampsora medusae</i> occurs	Pest-free area for <i>Melampsora medusae</i> or Place of production freedom including its immediate vicinity for <i>Melampsora medusae</i> confirmed for the last growing season
Plants for planting (except seeds) of <i>Populus</i> originating in countries where <i>Oemona hirta</i> occurs	Pest-free area for <i>Oemona hirta</i> or Pest-free place of production or pest-free production site for <i>Oemona hirta</i> under complete physical isolation (comparable to quarantine conditions) with regular inspections of the crop and inspection of plants prior to export or AND Transported outside of <i>Oemona hirta</i> flight period or Not transported through areas infested with <i>Oemona hirta</i> or Transported closed, to prevent infestation

Cut branches of Populus	PC and, if necessary, RC	
Cut branches of <i>Populus</i> originating in countries where any of the following pests occur: Choristoneura conflictana Choristoneura rosaceana Lepidosaphes ussuriensis Malacosoma americanum Malacosoma disstria	Free from the relevant pests listed in the left column	

Melampsora medusae	
Sphaerulina musiva Cut branches of Populus originating in countries where Choristoneura conflictana or Choristoneura rosaceana occurs	Pest-free area for Choristoneura conflictana and Choristoneura rosaceana or Originate from plants grown according to EPPO Standard PM 5/8 or Appropriate fumigation, details to be specified on the PC AND Transported outside of Choristoneura conflictana and Choristoneura rosaceana flight periods or Not transported through areas infested with Choristoneura conflictana and Choristoneura rosaceana or Transported closed, to prevent infestation
Cut branches of <i>Populus</i> originating in countries where <i>Sphaerulina</i> musiva occurs	Pest-free area for <i>Sphaerulina musiva</i> or Place of production freedom including its immediate vicinity for <i>Sphaerulina musiva</i> confirmed for the last growing season
Cut branches of <i>Populus</i> originating in countries where <i>Lepidosaphes</i> ussuriensis occurs	Pest-free area for <i>Lepidosaphes ussuriensis</i> or Place of production freedom (including throughout the previous season) for <i>Lepidosaphes ussuriensis</i>
Cut branches of Populus originating in countries where Malacosoma americanum or Malacosoma disstria occur	Pest-free area for Malacosoma americanum and Malacosoma disstria or Originate from plants grown according to EPPO Standard PM 5/8 or Appropriate fumigation, details to be specified on the PC AND Transported outside of Malacosoma americanum and Malacosoma disstria flight periods or Not transported through areas infested with Malacosoma americanum and Malacosoma disstria or Transported closed, to prevent infestation
Cut branches of <i>Populus</i> originating in countries where <i>Melampsora</i> medusae occurs	Pest-free area for <i>Melampsora medusae</i> or Place of production freedom including its immediate vicinity for <i>Melampsora medusae</i> confirmed for the last growing season
Wood of Populus	PC and, if necessary, RC

Wood of Populus	PC and, if necessary, RC
Wood of <i>Populus</i> originating in countries where any of the following	Free from the relevant pests listed in the left column
pests occur:	
Aeolesthes sarta	
Anoplophora chinensis	
Anoplophora glabripennis	
Apriona cinerea	
Apriona germari	
Apriona japonica	
Aromia bungii	
Megaplatypus mutatus	
Oemona hirta	
Sphaerulina musiva	

Trichoferus campestris

Xylotrechus namanganensis

Wood (except harvesting wood residues, processing wood residues, wood chips and hogwood) of *Populus* originating in countries where *Oemona hirta* occurs

Pest-free area for Oemona hirta

or

Heat treatment according to EPPO Standard PM 10/6

or

Treated with ionizing radiation according to EPPO Standard PM 10/8

or

Appropriate fumigation, details to be specified on the PC

or

Harvested and imported outside of *Oemona hirta* flying period (in winter) specified in the import permit and processed before the next *Oemona hirta* flying period (only in the framework of a bilateral agreement)

AND

Transported outside of Oemona hirta flight period

or

Not transported through areas infested with Oemona hirta

or

Transported closed, to prevent infestation

Round wood with bark of *Populus* originating in countries where any of the following pests occur:

Aeolesthes sarta Anoplophora chinensis Anoplophora glabripennis Trichoferus campestris

Xylotrechus namanganensis

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

or

Debarking and heat treatment according to EPPO Standard PM 10/6

or

Treated with ionizing radiation according to EPPO Standard PM 10/8

AND

Transported outside of the corresponding flight periods

or

Not transported through areas infested with the relevant pest

or

Transported closed, to prevent infestation

Round and sawn wood with or without bark of *Populus* originating in countries where *Apriona cinerea*, *Apriona germari* or *Apriona japonica*

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

or

Heat treatment according to EPPO Standard PM 10/6

or

Treated with ionizing radiation according to EPPO Standard PM 10/8

AND

Transported outside of the corresponding flight periods

or

Not transported through areas infested with the relevant pest

or

Transported closed, to prevent infestation

Round and sawn wood with or without bark of *Populus* originating in countries where *Aromia bungii* occurs

Pest-free area for Aromia bungii

or

Heat treatment according to EPPO Standard PM 10/6

or

Treated with ionizing radiation according to EPPO Standard PM 10/8

or

Harvested and imported outside of specified *Aromia bungii* flying period (in winter) and processed before the next *Aromia bungii* flying period (only in the framework of a bilateral agreement)

AND

Transported outside of *Aromia bungii* flight period

or

Not transported through areas infested with Aromia bungii

Round wood with bark of <i>Populus</i> originating in countries where <i>Sphaerulina musiva</i> occurs	or Transported closed, to prevent infestation Pest-free area for <i>Sphaerulina musiva</i> or Debarking
Wood (except harvesting wood residues, processing wood residues, wood chips and hogwood) of <i>Populus</i> originating in countries where <i>Megaplatypus mutatus</i> occurs	Pest-free area for Megaplatypus mutatus or Pest-free place of production for Megaplatypus mutatus and buffer zone of 200 m or Heat treatment according to EPPO Standard PM 10/6 or Treated with ionizing radiation according to EPPO Standard PM 10/8 or Appropriate fumigation, details to be specified on the PC AND Transported outside of Megaplatypus mutatus flight period or Not transported through areas infested with Megaplatypus mutatus or Transported closed, to prevent infestation
Sawn wood without bark of <i>Populus</i> originating in countries where any of the following pests occur: Aeolesthes sarta Anoplophora chinensis Anoplophora glabripennis Trichoferus campestris Xylotrechus namanganensis	Pest-free area for relevant pests listed in the left column or Heat treated according to EPPO Standard PM 10/6 or Treated with ionizing radiation according to EPPO Standard PM 10/8
Harvesting wood residues, processing wood residues, wood chips and hogwood of <i>Populus</i> originating in countries where <i>Apriona cinerea</i> , <i>Apriona germari</i> or <i>Apriona japonica</i> occur	Pest-free area for relevant pests listed in the left column or Heat treatment according to EPPO Standard PM 10/6 or Chipped to pieces of less than 2.5 cm in any dimension AND Transported outside of the corresponding flight periods or Not transported through areas infested with the relevant pest or Transported closed, to prevent infestation
Harvesting wood residues, processing wood residues, wood chips and hogwood of <i>Populus</i> originating in countries where <i>Aromia bungii</i> occurs	Pest-free area for <i>Aromia bungii</i> or Heat treatment according to EPPO Standard PM 10/6 or Chipped to pieces of less than 2.5 cm in any dimension or to 1.5 cm in 2 dimensions or Harvested and imported outside of specified <i>Aromia bungii</i> flying period (in winter) and processed before the next <i>Aromia bungii</i> flying period (only in the framework of a bilateral agreement) AND Transported outside of <i>Aromia bungii</i> flight period or Not transported through areas infested with <i>Aromia bungii</i>

-	nes, processing wood residues, wood chips and originating in countries where <i>Sphaerulina musiva</i>	or Transported closed, to prevent infestation Pest-free area for <i>Sphaerulina musiva</i> or Produced from debarked wood or Appropriate fumigation, details to be specified on the PC
Harvesting wood residues, processing wood residues, wood chips and hogwood of <i>Populus</i> originating in countries where <i>Oemona hirta</i> occurs		Pest-free area for <i>Oemona hirta</i> or Heat treatment or Chipped to pieces of less than 2.5 cm in any dimension or to 1.5 cm in 2 dimensions or Harvested and imported outside of <i>Oemona hirta</i> flying period (in winter) specified in the import permit and processed before the next <i>Oemona hirta</i> flying period (only in the framework of a bilateral agreement) AND Transported outside of <i>Oemona hirta</i> flight period or Not transported through areas infested with <i>Oemona hirta</i> or Transported closed, to prevent infestation
Packaging wood of Pop	pulus	Requirements of ISPM 15
Bark of Populus		PC and, if necessary, RC
		(continued)
Bark of <i>Populus</i> originating in countries where <i>Sphaerulina</i> musiva occurs		5. List of associated Standards Pest-free area for <i>Sphaerulina musiva</i> 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 St	andards are of relevance:	
EPPO Standards PM	3: Phytosanitary procedures	
PM 3/29	General export inspection procedure for glasshouse and nursery enterprises	
PM 3/54	Growing plants in growing medium prior to export	
PM 3/60		
EPPO Standards PM	5: Pest Risk Analysis	

EPPO Standards PM 5: Pest Risk Analysis

PM 5/8 Guidelines on the phytosanitary measure 'Plants grown under complete physical isolation'

EPPO Standards PM 10: Phytosanitary Treatments

PM 10/6 Heat treatment of wood to control insects and wood-borne nematodes

PM 10/8 Disinfestation of wood with ionizing radiation

International Standards 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, Rome

ISPM 15 Regulation of wood packaging material in international trade, 2013. FAO, Rome

Other documents referred to:

EPPO Technical Document no. 1071, EPPO Study on wood commodities other than round wood, sawn wood and manufactured items, 2015. EPPO,

Paris (https://www.eppo.int/PUBLICATIONS/TD-1071_EPPO_Study_on_wood_commodities.pdf)

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