

**INTERNATIONAL STANDARDS FOR
PHYTOSANITARY MEASURES
Revision of ISPM No. 15
REGULATION OF WOOD PACKAGING
MATERIAL IN INTERNATIONAL TRADE
(2009)**

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INTRODUCTION

SCOPE

This standard describes phytosanitary measures that reduce the risk of introduction and spread of quarantine pests associated with the movement in international trade of wood packaging material made from raw wood. Wood packaging material covered by this standard includes dunnage but excludes wood packaging made from wood processed in such a way that it is free from pests (e.g. plywood).

The phytosanitary measures described in this standard are not intended to provide ongoing protection from contaminating pests or other organisms.

ENVIRONMENTAL STATEMENT

Pests associated with wood packaging material are known to have negative impacts on forest health and biodiversity. Implementation of this standard is considered to reduce significantly the spread of pests and subsequently their negative impacts. In the absence of alternative treatments being available for certain situations or to all countries, or the availability of other appropriate packaging materials, methyl bromide treatment is included in this standard. Methyl bromide is known to deplete the ozone layer. A CPM Recommendation on the *Replacement or reduction of the use of methyl bromide as a phytosanitary measure* (2008) has been adopted in relation to this issue. Alternative treatments that are more environmentally friendly are being pursued.

REFERENCES

- Consignments in transit*, 2006. ISPM No. 25, FAO, Rome.
- Export certification system*, 1997. ISPM No. 7, FAO, Rome.
- Glossary of phytosanitary terms*, 2008. ISPM No. 5, FAO, Rome.
- Guidelines for a phytosanitary import regulatory system*, 2004. ISPM No. 20, FAO, Rome.
- Guidelines for inspection*, 2005. ISPM No. 23, FAO, Rome.
- Guidelines on notification of non-compliance and emergency action*, 2001. ISPM No. 13, FAO, Rome.
- ISO 3166-1-alpha-2 code elements
(http://www.iso.org/iso/english_country_names_and_code_elements).
- International Plant Protection Convention*, 1997. FAO, Rome.
- Phytosanitary treatments for regulated pests*, 2007. ISPM No. 28, FAO, Rome.
- Replacement or reduction of the use of methyl bromide as a phytosanitary measure*, 2008. CPM Recommendation, FAO, Rome.
- The Montreal Protocol on Substances that Deplete the Ozone Layer*, 2000. Ozone Secretariat, United Nations Environment Programme. ISBN: 92-807-1888-6
(<http://www.unep.org/ozone/pdfs/Montreal-Protocol2000.pdf>).

DEFINITIONS

Definitions of phytosanitary terms used in this standard can be found in ISPM No. 5 (*Glossary of phytosanitary terms*, 2008).

OUTLINE OF REQUIREMENTS

Approved phytosanitary measures that significantly reduce the risk of pest introduction and spread via wood packaging material consist of the use of debarked wood (with a specified tolerance for remaining bark) and the application of approved treatments (as prescribed in Annex 1). The

application of the recognized mark (as prescribed in Annex 2) ensures that wood packaging material subjected to the approved treatments is readily identifiable. The approved treatments, the mark and its use are described.

The National Plant Protection Organizations (NPPOs) of exporting and importing countries have specific responsibilities. Treatment and application of the mark must always be under the authority of the NPPO. NPPOs that authorize the use of the mark should supervise (or, as a minimum, audit or review) the application of the treatments, use of the mark and its application, as appropriate, by producer/treatment providers and should establish inspection or monitoring and auditing procedures. Specific requirements apply to wood packaging material that is repaired or remanufactured. NPPOs of importing countries should accept the approved phytosanitary measures as the basis for authorizing entry of wood packaging material without further wood packaging material-related phytosanitary import requirements and may verify on import that the requirements of the standard have been met. Where wood packaging material does not *ISPM No. 15 Regulation of wood packaging material in international trade 6 International Standards for Phytosanitary Measures*

comply with the requirements of this standard, NPPOs are also responsible for measures implemented and notification of non-compliance, as appropriate. *Regulation of wood packaging material in international trade ISPM No. 15 International Standards for Phytosanitary Measures 7*

REQUIREMENTS

1. Basis for Regulation

Wood originating from living or dead trees may be infested by pests. Wood packaging material is frequently made of raw wood that may not have undergone sufficient processing or treatment to remove or kill pests and therefore remains a pathway for the introduction and spread of quarantine pests. Dunnage in particular has been shown to present a high risk of introduction and spread of quarantine pests. Furthermore, wood packaging material is very often reused, repaired or remanufactured (as described in section 4.3). The true origin of any piece of wood packaging material is difficult to determine, and thus its phytosanitary status cannot easily be ascertained. Therefore the normal process of undertaking pest risk analysis to determine if measures are necessary, and the strength of such measures, is frequently not possible for wood packaging material. For this reason, this standard describes internationally accepted measures that may be applied to wood packaging material by all countries to reduce significantly the risk of introduction and spread of most quarantine pests that may be associated with that material.

2. Regulated Wood Packaging Material

These guidelines cover all forms of wood packaging material that may serve as a pathway for pests posing a pest risk mainly to living trees. They cover wood packaging material such as crates, boxes, packing cases, dunnage¹, pallets, cable drums and spools/reels, which can be present in almost any imported consignment, including consignments that would not normally be subject to phytosanitary inspection.

2.1 Exemptions

The following articles are of sufficiently low risk to be exempted from the provisions of this standard:

1

wood packaging material made entirely from thin wood (6 mm or less in thickness)

wood packaging made wholly of processed wood material, such as plywood, particle board, oriented strand board or veneer that has been created using glue, heat or pressure, or a combination thereof

barrels for wine and spirit that have been heated during manufacture

gift boxes for wine, cigars and other commodities made from wood that has been processed and/or manufactured in a way that renders it free of pests

sawdust, wood shavings and wood wool

wood components permanently attached to freight vehicles and containers.

3. Phytosanitary Measures for Wood Packaging Material

This standard describes phytosanitary measures (including treatments) that have been approved for wood packaging material and provides for the approval of new or revised treatments.

3.1 Approved phytosanitary measures

The approved phytosanitary measures described in this standard consist of phytosanitary procedures including treatments and marking of the wood packaging material. The application of the mark renders the use of a phytosanitary certificate unnecessary as it indicates that the internationally accepted phytosanitary measures have been applied. These phytosanitary measures should be accepted by all National Plant Protection Organizations (NPPOs) as the basis for authorizing the entry of wood packaging material without further specific requirements. Required phytosanitary measures beyond an approved measure as described in this standard require technical justification.

¹ Consignments of wood (i.e. timber/lumber) may be supported by dunnage that is constructed from wood of the same type and quality and that meets the same phytosanitary requirements as the wood in the consignment. In such cases, the dunnage may be considered as part of the consignment and may not be considered as wood packaging material in the context of this standard.

² Not all types of gift boxes or barrels are constructed in a manner that renders them pest free, and therefore certain types may be considered to be within the scope of this standard. Where appropriate, specific arrangements related to these types of commodities may be established between importing and exporting NPPOs. *ISPM No. 15 Regulation of wood packaging material in international trade & International Standards for Phytosanitary Measures*

The treatments described in Annex 1 are considered to be significantly effective against most pests of living trees associated with wood packaging material used in international trade. These treatments are combined with the use of debarked wood for construction of wood packaging, which also acts to reduce the likelihood of reinfestation by pests of living trees. These measures have been adopted based on consideration of:

- the range of pests that may be affected
- the efficacy of the treatment
- the technical and/or commercial feasibility.

There are three main activities involved in the production of approved wood packaging material (including dunnage): treating, manufacturing and marking. These activities can be done by separate entities, or one entity can do several or all of these activities. For ease of reference, this standard refers to producers (those that manufacture the wood packaging material and may apply the mark to appropriately treated wood packaging material) and treatment providers (those that apply the approved treatments and may apply the mark to appropriately treated wood packaging material).

Wood packaging material subjected to the approved measures shall be identified by application of an official mark in accordance with Annex 2. This mark consists of a dedicated symbol used in conjunction with codes identifying the specific country, the responsible producer or treatment provider, and the treatment applied. Hereafter, all components of such a mark are referred to collectively as “the mark”. The internationally recognized, non-language-specific mark facilitates identification of treated wood packaging material during inspection prior to export, at the point of entry, or elsewhere. NPPOs should accept the mark as referred to in Annex 2 as the basis for authorizing the entry of wood packaging material without further specific requirements.

Debarked wood must be used for the construction of wood packaging material, in addition to application of one of the adopted treatments specified in Annex 1. A tolerance for remaining bark is specified in Annex 1.

3.2 Approval of new or revised treatments

As new technical information becomes available, existing treatments may be reviewed and modified, and new alternative treatments and/or treatment schedule(s) for wood packaging material may be adopted by the Commission on Phytosanitary Measures (CPM). ISPM No. 28 (*Phytosanitary treatments for regulated pests*, 2007) provides guidance on the IPPC’s process for approval of treatments. If a new treatment or a revised treatment schedule is adopted for wood packaging material and incorporated into this ISPM, material already treated under the previous treatment and/or schedule does not need to be re-treated or re-marked.

3.3 Alternative bilateral arrangements

NPPOs may accept measures other than those listed in Annex 1 by bilateral arrangement with their trading partners. In such cases, the mark shown in Annex 2 must not be used unless all requirements of this standard have been met.

4. Responsibilities of NPPOs

To meet the objective of preventing the introduction and spread of pests, exporting and importing contracting parties and their NPPOs have responsibilities (as outlined in Articles I, IV and VII of the IPPC). In relation to this standard, specific responsibilities are outlined below.

4.1 Regulatory considerations

Treatment and application of the mark (and/or related systems) must always be under the authority of the NPPO. NPPOs that authorize use of the mark have the responsibility for ensuring that all systems authorized and approved for implementation of this standard meet all necessary requirements described within the standard, and that wood packaging material (or wood that is to be made into wood packaging material) bearing the mark has been treated and/or manufactured in accordance with this standard. Responsibilities include:

- authorization, registration and accreditation, as appropriate
- monitoring treatment and marking systems implemented in order to verify compliance (further information on related responsibilities is provided in ISPM No. 7: *Export certification system*, 1997)
- inspection, establishing verification procedures and auditing where appropriate (further information *Regulation of wood packaging material in international trade ISPM No. 15 International Standards for Phytosanitary Measures 9* is provided in ISPM No. 23: *Guidelines for inspection*, 2005).

The NPPO should supervise (or, as a minimum, audit or review) the application of the treatments, and authorize use of the mark and its application as appropriate. To prevent untreated or insufficiently/incorrectly treated wood packaging material bearing the mark, treatment should be carried out prior to application of the mark.

4.2 Application and use of the mark

The specified marks applied to wood packaging material treated in accordance with this standard must conform to the requirements described in Annex 2.

4.3 Treatment and marking requirements for wood packaging material that is reused, repaired or remanufactured

NPPOs of countries where wood packaging material that bears the mark described in Annex 2 is repaired or remanufactured have responsibility for ensuring and verifying that systems related to export of such wood packaging material comply fully with this standard.

4.3.1 Reuse of wood packaging material

A unit of wood packaging material that has been treated and marked in accordance with this standard and that has not been repaired, remanufactured or otherwise altered does not require re-treatment or re-application of the mark throughout the service life of the unit.

4.3.2 Repaired wood packaging material

Repaired wood packaging material is wood packaging material that has had up to approximately one third of its components removed and replaced. NPPOs must ensure that when marked wood packaging material is repaired, only wood treated in accordance with this standard is used for the repair, or wood constructed or fabricated from processed wood material (as described in section 2.1). Where treated wood is used for the repair, each added component must be individually marked in accordance with this standard.

Wood packaging material bearing multiple marks may create problems in determining the origin of the wood packaging material if pests are found associated with it. It is recommended that NPPOs of countries where wood packaging material is repaired limit the number of different marks that may appear on a single unit of wood packaging material. Therefore NPPOs of countries where wood packaging material is repaired may require the repaired wood packaging material to have previous marks obliterated, the unit to be re-treated in accordance with Annex 1, and the mark then applied in accordance with Annex 2. If methyl bromide is used for the re-treatment, the information in the CPM Recommendation on the *Replacement or reduction of the use of methyl bromide as a phytosanitary measure* (2008) should be taken into account.

In circumstances where there is any doubt that all components of a unit of repaired wood packaging material have been treated in accordance with this standard, or the origin of the unit of wood packaging material or its components is difficult to ascertain, the NPPOs of countries where wood packaging material is repaired should require the repaired wood packaging material to be re-treated, destroyed, or otherwise prevented from moving in international trade as wood packaging material compliant with this standard. In the case of re-treatment, any previous applications of the mark must be permanently obliterated (e.g. by covering with paint or grinding). After re-treatment, the mark must be applied anew in accordance with this standard.

4.3.3 Remanufactured wood packaging material

If a unit of wood packaging material has had more than approximately one third of its components replaced, the unit is considered to be remanufactured. In this process, various components (with additional reworking if necessary) may be combined and then reassembled into further wood packaging material. Remanufactured wood packaging material may therefore incorporate both new and previously used components.

Remanufactured wood packaging material must have any previous applications of the mark permanently obliterated (e.g. by covering with paint or grinding). Remanufactured wood packaging material must be re-treated and the mark must then be applied anew in accordance with this standard. *ISPM No. 15 Regulation of wood packaging material in international trade 10 International Standards for Phytosanitary Measures*

³ This need not necessarily be a treatment approved in this standard.

4.4 Transit

Where consignments moving in transit have wood packaging material that does not meet the requirements of this standard, NPPOs of countries of transit may require measures to ensure that wood packaging material does not present an unacceptable risk. Further guidance on transit arrangements is provided in ISPM No. 25 (*Consignments in transit*, 2006).

4.5 Procedures upon import

Since wood packaging materials are associated with most shipments, including those not considered to be the target of phytosanitary inspections in their own right, cooperation by NPPOs with organizations not usually involved with verification of whether the phytosanitary import requirements have been met is important. For example, cooperation with Customs organizations and other stakeholders will help NPPOs in receiving information on the presence of wood packaging material. This is important to ensure effectiveness in detecting potential non-compliance of wood packaging material.

4.6 Phytosanitary measures for non-compliance at point of entry

Relevant information on non-compliance and emergency action is provided in sections 5.1.6.1 to 5.1.6.3 of ISPM No. 20 (*Guidelines for a phytosanitary import regulatory system*, 2004), and in ISPM No. 13 (*Guidelines on notification of non-compliance and emergency action*, 2001). Taking into account the frequent re-use of wood packaging material, NPPOs should consider that the non-compliance identified may have arisen in the country of production, repair or remanufacture, rather than in the country of export or transit.

Where wood packaging material does not carry the required mark, or the detection of pests provides evidence that the treatment may not have been effective, the NPPO should respond accordingly and, if necessary, an emergency action may be taken. This action may take the form of detention while the situation is being addressed then, as appropriate, removal of non-compliant material, treatments, destruction (or other secure disposal) or re-shipment. Further examples of appropriate options for actions are provided in Appendix 1. The principle of minimal impact should be pursued in relation to any emergency action taken, distinguishing between the consignment traded and the accompanying wood packaging material. In addition, if emergency action is necessary and methyl bromide is used by the NPPO, relevant aspects of the CPM Recommendation on *Replacement or reduction of the use of methyl bromide as a phytosanitary measure* (2008) should be followed.

The NPPO of the importing country should notify the exporting country, or the manufacturing country where applicable, in cases where live pests are found. In such cases, where a unit of wood packaging material bears more than one mark NPPOs should attempt to determine the origin of the non-compliant component(s) prior to sending a notice of non-compliance. NPPOs are also encouraged to notify cases of missing marks and other cases of non-compliance. Taking into account the provisions of section 4.3.2, it should be noted that the presence of multiple marks on a single unit of wood packaging does not constitute non-compliance. *Regulation of wood packaging material in international trade ISPM No. 15 International Standards for Phytosanitary Measures 11*

⁴ In addition, contracting parties to the IPPC may also have obligations under the Montreal Protocol on Substances that deplete the Ozone Layer.

⁵ The CT product utilized for methyl bromide treatment in this standard is the sum of the product of the concentration (g/m³) and time (h) over the duration of the treatment.

ANNEX 1

APPROVED TREATMENTS ASSOCIATED WITH WOOD PACKAGING MATERIAL

Use of debarked wood

Irrespective of the type of treatment applied, wood packaging material must be made of debarked wood. For this standard, any number of visually separate and clearly distinct small pieces of bark may remain if they are:

- less than 3 cm in width (regardless of the length) or
- greater than 3 cm in width, with the total surface area of an individual piece of bark less than 50 square cm.

For methyl bromide treatment the removal of bark must be carried out before treatment because the presence of bark on the wood affects the efficacy of the methyl bromide treatment. For heat treatment, the removal of bark can be carried out before or after treatment.

Heat treatment (treatment code for the mark: HT)

Wood packaging material must be heated in accordance with a specific time–temperature schedule that achieves a minimum temperature of 56 °C for a minimum duration of 30 continuous minutes throughout the entire profile of the wood (including at its core). Various energy sources or processes may be suitable to achieve these parameters. For example, kiln-drying, heat-enabled chemical pressure impregnation, microwave or other treatments may all be considered heat treatments provided that they meet the heat treatment parameters specified in this standard.

Methyl bromide treatment (treatment code for the mark: MB)

Use of methyl bromide should be undertaken taking into account the CPM Recommendation *Replacement or reduction of the use of methyl bromide as a phytosanitary measure* (2008). NPPOs are encouraged to promote the use of alternative treatments approved in this standard.⁴

The wood packaging material must be fumigated with methyl bromide in accordance with a schedule that achieves the minimum concentration-time product⁵ (CT) over 24 hours at the temperature and final residual concentration specified in Table 1. This CT must be achieved throughout the wood, including at its core, although the concentrations would be measured in the ambient atmosphere. The minimum temperature of the wood and its surrounding atmosphere must be not less than 10 °C and the minimum exposure time must be not less than 24 hours. Monitoring of gas concentrations must be carried out at a minimum at 2, 4 and 24 hours (in the case of longer exposure times and weaker concentrations, additional measurement should be recorded at the end of fumigation).

Table 1: Minimum CT over 24 hours for wood packaging material fumigated with methyl bromide	CT (g·h/m³) over 24 h	Minimum final concentration (g/m³) after 24 h
Temperature		
21 °C or above	650	24
16 °C or above	800	28
10 °C or above	900	32