



Phase 3 Mushroom Growing Medium

MPI.IHS.PHASE3

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Draft for
Consultation

TITLE

Import Health Standard: Phase 3 Mushroom Growing Medium

COMMENCEMENT

This Import Health Standard comes into force on [Effective Date]

ISSUING AUTHORITY

This Import Health Standard is issued under section 24A of the Biosecurity Act 1993.

Dated at Wellington this ... day of

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(acting under delegated authority of the Director-General)

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Introduction

This introduction is not part of the import health standard (IHS), but is intended to indicate its general effect.

Purpose

This IHS specifies the requirements for the importation of phase 3 mushroom growing medium from all countries, to manage the biosecurity risks which may be associated with these goods.

Background

The New Zealand Biosecurity Act 1993 (the Act) provides the legal basis for excluding, eradicating and effectively managing pests and unwanted organisms.

IHSs issued under the Act set out requirements to be met to effectively manage biosecurity risks associated with importing goods, including the risks from incidentally imported organisms. This IHS includes requirements that must be met in the exporting country, during transit, before risk goods are moved from a transitional facility (TF) or biosecurity control area (BCA) and before biosecurity clearance is given. This may include post clearance requirements.

Additional information to the requirements is included in guidance text boxes, or in the guidance document that accompanies this IHS.

Who should read this?

This import health standard applies to all importers of phase 3 mushroom growing medium, producers and exporters in the country of origin, and the National Plant Protection Organisation representatives in the country of origin.

Why is this important?

Importers must take all reasonable steps to ensure that the goods comply with this IHS (section 16B of the Act).

Consignments that do not comply with the requirements of this IHS may not be cleared for entry into New Zealand and /or further information may be sought from importers.

The detection of regulated pests may result in treatment, reshipment or destruction of the consignment.

Breach of a post clearance condition may lead to a penalty being imposed.

Importers are liable for all associated expenses.

Equivalence

MPI may consider a pre-export application for an equivalent phytosanitary measure to be approved, different from that provided for in this IHS, to maintain at least the same level of protection assured by the current measures in this IHS.

Equivalence will be considered with reference to the International Standard for Phytosanitary Measures (ISPM), Publication No. 24: *Guidelines for the determination and recognition of equivalence of phytosanitary measures* (2011).

Document History

Refer to Appendix 2 for the Amendment Record for this IHS.

Other information

Guidance for this Import Health Standard is provided in the Guidance Document: Phase 3 Mushroom Growing Medium

The information contained within a border throughout this document is for guidance and is not part of the statutory requirements.

This is not an exhaustive list of compliance requirements and it is the importer's responsibility to be familiar with and comply with all New Zealand laws.

All phase 3 mushroom growing medium will also need to meet all requirements set out in the IHS for Processed Animal Manure Products and the IHS for Microorganisms from All Countries.

The requirements for imports of other growing media of plant origin are prescribed in the IHS: MPI.STD.FERTGRO: Fertilisers and Growing Media of Plant Origin.

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Part 1: Requirements

1.1 Application

- (1) This import health standard (IHS) applies to phase 3 mushroom growing medium from all countries as described in Section 2.1 *Commodity description*.

1.2 Incorporation by reference

- (1) The following documents are incorporated by reference under section 142M of the Act:
 - a) International Standards for Phytosanitary Measures (ISPM);
 - b) MPI Biosecurity Organisms Register for Imported Commodities (BORIC);
 - c) ePest Database;
 - d) Facility Standard for Transitional Facilities for General Uncleared Risk Goods (MPI-STD-TFGEN).
- (2) Under section 142O(3) of the Act, it is declared that section 142O(1) does not apply, that is, a notice under section 142O(2) of the Act is not required to be published before material that amends or replaces any material incorporated by reference that has legal effect as part of those documents.

1.3 Definitions

- (1) Definitions that apply to this IHS are listed in Appendix 1.

1.4 General

- (1) All phase 3 mushroom growing medium must be free from regulated pests, extraneous organic materials and must not contain any viable seeds.
- (2) All packaging associated with the mushroom growing medium must be clean and free from contaminants.

1.5 Exporting country systems

- (1) Importers may only import from a country where the overseas National Plant Protection Organisation (NPPO) has provided evidence to the satisfaction of an MPI Chief Technical Officer (CTO), or the CTO has gained satisfactory evidence, of the national systems/programmes and standards used for export assurance in accordance with ISPM 7: *Phytosanitary Certification System*.
- (2) The national programmes and standards are subject to audit by MPI.

1.6 Export Plans

- (1) MPI and the exporting country NPPO may negotiate a country-specific Export Plan that demonstrates how Targeted and MPI-Specified Measures will be achieved before trade can commence.
- (2) If, for operational reasons, the NPPO of the exporting country is unable to negotiate an Export Plan, MPI may negotiate the Export Plan directly with another relevant party.

- (3) The Export Plan must include detail of the activities that support the effective application of Targeted and MPI- Specified Measures. Supporting activities include product traceability, training, management of records, phytosanitary inspection, certification and phytosanitary security.
- (4) The negotiated and agreed Export Plan is subject to review and audit by MPI.

Guidance

- An Export Plan is only necessary when *Targeted* or *MPI-Specified Measures* are required. Targeted and MPI-Specified Measures are required to manage pests that are not sufficiently managed by basic measures, including commercial production practices and official pre-export phytosanitary inspection and certification by the exporting NPPO.
- MPI endeavours to negotiate the export plan with the relevant exporting NPPO. However if the NPPO of the exporting country is unable to negotiate an Export Plan, MPI may negotiate the Export Plan directly with another relevant party.
- When export plans are developed for overseas exporting countries, recognised countries will be listed on the MPI website at [ePest database](#).

1.7 Transport requirements

- (1) If a consignment is either opened, stored, split up or has its packaging changed prior to when it arrives in New Zealand, a phytosanitary certificate for re-export is required from the transiting country, in accordance with ISPM 12: *Phytosanitary certificates*, and must accompany each consignment.

1.8 Biosecurity clearance

- (1) Phase 3 mushroom growing medium that meets the requirements of this IHS may be given a biosecurity clearance subject to post clearance conditions as described in part 2.6: *Post clearance conditions*.

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Part 2: Specific Requirements

2.1 Commodity description

- (1) Phase 3 mushroom growing medium means growing medium that is produced using a mixture of horse manure, chicken manure, straw, gypsum and water and that is inoculated with mushroom (*Agaricus bisporus*) spawn prior to export.

Guidance

- Information about how to meet the requirements of this IHS is provided in the guidance document which accompanies this standard.
- Because phase 3 medium contains ingredients of animal origin, it must also meet all requirements set out in the IHS for Processed Animal Manure Products (ANMANURE.GEN).

2.2 Pest list

- (1) A list of pests associated with phase 3 mushroom growing medium requiring Targeted or MPI-Specified Measures is reproduced on the MPI website [ePest database](#).

Guidance

- For the purpose of this IHS, organisms requiring Targeted Measures are *Trichoderma aggressivum* and Mushroom virus X disease.

- (2) The full list of regulated and non-regulated pests for New Zealand can be found in BORIC <http://mpi.govt.nz/news-and-resources/resources/registers-and-lists/biosecurity-organisms-register-for-imported-commodities>.

2.3 Basic Measures

- (1) Phase 3 mushroom growing medium must be sourced from a production facility that uses the following standard production methods for commercial grade product:
- a) the production system must include regular audits by an external official accreditation body;
 - b) phase 1 composting must be done in enclosed bunkers during which time all raw ingredients must be composted at a minimum temperature and time combination of either 60°C for 12 hours, or 65°C for 8 hours;
 - c) the following hygiene measures must be used:
 - i) dedicated equipment and machinery must be used for different stages of production;
 - ii) covered conveyors, or clean enclosed trucks must be used when transporting material between different areas of a production facility;
 - iii) procedures must be in place to remove all traces of compost debris from tunnels, conveyors, winches, and other equipment between batches.
 - d) all phase 3 mushroom growing medium must be packaged in clean, impermeable material after spawning. If phase 3 mushroom growing medium is transferred to another site for packaging this must be done using clean machinery and the medium must be covered during transport.

2.4 Targeted Measures

- (1) In relation to each of the pests in [ePest database](#) identified as requiring *Targeted Measures*, one (or more) of the following *Targeted Measures* must be applied prior to export to New Zealand.
 - a) Country freedom. No additional measures are required where 'country freedom' status is recognised for the exporting country (refer to Part 2.4.1);
 - b) Pest free area. MPI will audit the management of pest free areas for compliance with ISPM 4: *Requirements for the establishment of pest free areas* (refer to Part 2.4.1);
 - c) Systems approach. The components of a systems approach, including the particular production facilities, should be documented in the Export Plan. MPI will audit the management of a systems approach for compliance ISPM 14: *The use of integrated measures in a systems approach for pest risk management*.

Guidance

- Country freedom will be listed on the MPI website at [ePest database](#)
- Specific production facilities recognised as eligible to export product to New Zealand will be listed on the MPI website at [ePest database](#).

2.4.1 Country freedom or Pest free area

- (1) Exporting countries must comply with ISPM 4: *Requirements for the establishment of pest free areas* to ensure 'country freedom' or 'pest free area' status is recognised for the pests requiring targeted measures. Refer to the certification requirements listed in *Part 3: Documentation Requirements*.

2.4.2 Systems approach

- (1) The negotiated Export Plan must describe how measures used as part of a systems approach will be applied for the pests requiring targeted measures.
- (2) Where a systems approach is used as a *Targeted Measure*, the Export Plan must include the following components:
 - a) stringent hygiene measures that are applied throughout production including:
 - i) steaming phase 2 and 3 production tunnels at a minimum of either 60°C for 12 hours, or 65°C for 8 hours between each batch;
 - ii) cleaning and chemical disinfection of other parts of phase 2 and phase 3 production areas between batches;
 - iii) maintaining positive air pressure during spawning;
 - iv) HEPA filtration of spawning areas;
 - v) isolating spawning from other stages of production;
 - vi) restricting entry to production tunnels;
 - vii) using clean clothing and footwear when entering production areas.
 - b) testing to ensure freedom from *Trichoderma aggressivum* that must include:
 - i) testing samples of phase 3 mushroom growing medium taken during tunnel emptying for the presence of *T. aggressivum*;
 - ii) routine testing of debris on production equipment (conveyors, winches, mixers, ground, trucks, dispatch area etc.) for the presence of *T. aggressivum*;
 - iii) routine testing of air plates positioned throughout the facility (for example beneath tunnels that are being emptied, on winches, in dispatch halls etc.) for the presence of *T. aggressivum*;
 - iv) post production monitoring (at local mushroom production facilities who receive material from the same batch of growing medium) to determine any presence of *T. aggressivum*.

- c) the identity of any species of *Trichoderma* identified during testing must be confirmed using PCR or DNA sequencing;
- d) samples from each batch of phase 3 medium must be tested for the presence of signs or symptoms of Mushroom virus X disease.

2.5 MPI-Specified Measures

- (1) There are no pests associated with this commodity which require an MPI-Specified Measure.

2.6 Phytosanitary inspection

- (1) The NPPO of the exporting country must:
 - a) sample and visually inspect each consignment according to official procedures in accordance with *ISPM 23: Guidelines for Inspection* for all the regulated pests required by New Zealand;
 - b) verify that the appropriate measures listed in this IHS have been applied;
 - c) reconcile that the number of packages presented for inspection is consistent with documentation;
 - d) verify that traceability labelling is complete; and
 - e) verify that phytosanitary security is maintained for the consignment.

2.7 Post clearance conditions

- (1) Phase 3 mushroom growing medium must be imported into a transitional facility that is approved by MPI and subject to verification inspections by MPI in accordance with the MPI facility standard for Transitional Facilities for General Uncleared Risk Goods (MPI-STD-TFGEN).
- (2) Phase 3 mushroom growing medium must only be used for the purpose of growing common mushroom (*Agaricus bisporus*) and must be retained at transitional facility unless a steam cookout has been applied that ensures all spent growing medium reaches a minimum temperature of 65°C for a minimum of 8 hours.

Guidance

- The import of Phase 3 mushroom growing medium is subject to post clearance conditions under section 27A of the Act as detailed in the relevant CTO direction, and described in the guidance document that accompanies this standard.

Part 3: Documentation requirements

3.1 Import permit

- (1) A permit to import is required.

3.2 Phytosanitary certificate

- (1) All consignments of phase 3 mushroom growing medium must be accompanied by a phytosanitary certificate.
- (2) The phytosanitary certificate must include the scientific name (Genus and species) of the mushroom spawn with which the phase 3 mushroom growing medium has been inoculated.
- (3) If the exporting NPPO is satisfied that the pre-shipment inspection activities have been carried out effectively, the following certification statement must be provided:
 - a) "This is to certify that the plants, plant products or other regulated articles described herein have been inspected and/or tested according to appropriate official procedures and are considered to be free from the quarantine pests specified by the importing contracting party and conform with the current phytosanitary requirements of the importing contracting party, including those for regulated non-quarantine pests."
- (4) The phytosanitary certificate must be:
 - a) issued by the exporting country National Plant Protection Organisation (NPPO) in accordance with ISPM 12: *Phytosanitary certificates*; and
 - b) include any additional declaration(s) as required under Part 3.2.1: *Additional Declarations*.
- (5) If visually detectable regulated pests are found which are not listed in this IHS, ePest, or BORIC, the NPPO must establish their regulatory status prior to issuing the certificate by contacting MPI.

3.2.1 Additional declarations

- (1) The NPPO must include one of the following additional declarations on the phytosanitary certificate appropriate to the targeted measure(s) selected under Part 2.4 of this IHS.

Country freedom

- (1) If the phase 3 mushroom growing medium is sourced from a country free from the pests requiring targeted measures, the NPPO must also include the following additional declaration on the phytosanitary certificate:
 - a) "The phase 3 mushroom growing medium in this consignment has been produced in a country free from *Trichoderma aggressivum* **and/or** Mushroom virus X disease".

Pest free area

- (1) If the phase 3 mushroom growing medium is sourced from a pest free area free from the pests requiring targeted measures, the NPPO must also include the following additional declaration on the phytosanitary certificate:
 - a) "The phase 3 mushroom growing medium in this consignment was produced in a pest free area for *Trichoderma aggressivum* **and/or** Mushroom virus X disease".

Guidance

- If country freedom or pest free area status is obtained for only one of the above organisms, then additional Targeted Measures (systems approach) will still be required to manage the risk associated with the organism for which country freedom or pest free area status does not apply.

Systems approach

- (1) If the phase 3 mushroom growing medium was produced using a systems approach according to an Export Plan negotiated between MPI and the NPPO of the exporting country, the NPPO must also include the following additional declaration on the phytosanitary certificate:
- a) "This consignment was produced and prepared for export in accordance with the agreed Export Plan"

Guidance

- This additional declaration is not required in cases where the Export Plan is negotiated between MPI and a party other than the NPPO.

3.3 Manufacturer's certificate

- (1) A manufacturer's certificate is required and must be signed by an authorised person within the company and must include all the following information:
- a) name and address of manufacturer;
 - b) name and address of supplier (if phase 3 mushroom growing medium is supplied by a third party organisation);
 - c) date;
 - d) a full description of the product including:
 - i) a list of all ingredients used to produce the phase 3 mushroom growing medium;
 - ii) a statement that there has been no change to the manufacturing process for the phase 3 mushroom growing medium since the import permit was issued.
 - e) a statement that either:
 - i) monitoring and/or testing for *Trichoderma aggressivum* and Mushroom virus X disease has been completed as required in the IHS, and that neither organism has been detected, OR;
 - ii) the phase 3 mushroom growing medium was produced in a pest free area/country free from *Trichoderma aggressivum* and/or Mushroom virus X, and that this has been verified by the NPPO of the exporting country on the phytosanitary certificate that accompanies the consignment.
 - f) the full scientific name of the mushroom spawn, the name of the company that produced the spawn, and a declaration that:
 - i) the spawn is a pure strain;
 - ii) the identity of the spawn has been verified using either molecular or morphological characterisation (the certificate must identify which method was used);
 - iii) the spawn has been produced under sterile conditions on sterile substrate and has been kept free from any contamination.
 - g) details linking the manufacturer's certificate to the product (for example a bill of lading, container numbers, batch/serial number or invoice).
- (2) In cases where the Export Plan is negotiated with a relevant party who is not the NPPO, the manufacturer's certificate must also include the following statement:
- a) the phase 3 mushroom growing medium in this consignment was prepared and produced for export in accordance with the agreed Export Plan.

Appendix 1 – Definitions

Definitions have the same meaning as defined by the Act and ISPM 5: Glossary of Phytosanitary Terms (2012), unless set out below:

Biosecurity Clearance

A clearance under section 26 of the New Zealand Biosecurity Act 1993 for the entry of goods into New Zealand.

Biosecurity Organisms Register for Imported Commodities (BORIC)

A register of organisms that may be associated with plants or plant products that are imported into New Zealand. The quarantine status for each species is indicated i.e. regulated or non-regulated.

Chief Technical Officer

A person appointed by the Director General of MPI as a chief technical officer under section 101 of the Biosecurity Act 1993.

Contaminant

A contaminant is considered a quarantine contaminant if it is any one of the following:

- a) a regulated organism (including viable weed seeds);
- b) a viable seed which is a new organism or potentially a new organism (species name unknown);
- c) material (including soil, debris) that may harbour unwanted or new organisms.

Import health standard

A document issued under section 24A of the Biosecurity Act, which specifies the requirements to be met for the effective management of risks associated with importation of risk goods, before those goods may be imported, moved from a biosecurity control area or transitional facility or given a biosecurity clearance.

IPPC

International Plant Protection Convention.

NPPO

National Plant Protection Organisation the official organisation established by a government to discharge the functions specified by the IPPC.

Pest

Any species, strain, or biotype of plant, animal, or pathogenic agent injurious to plant or plant products [IPCC].

Procedure

A document that specifies, as applicable, the purpose and scope of an activity; what must be done and by whom; when, where, and how it must be done; what materials, equipment, and documentation must be used; and how it must be controlled.

Regulated pest

A quarantine pest or a regulated non-quarantine pest listed in BORIC as being regulated for New Zealand.

Note: If an intercepted organism is not listed in BORIC, the NPPO must contact MPI to establish the regulatory status.

Sample

Method of collecting a representation of a commodity based on a sampling plan in order to ascertain pest levels or for other testing (e.g. germination).

Appendix 2 – Document history

No.	Version Date	Section Changed	Change(s) Description
1	TBA	New import health standard	Import requirements for phase 3 mushroom growing medium

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