

Import Health Standard

Bark

from

All Countries

Pursuant to Section 22 of the Biosecurity Act (1993)

ISSUED: 16 April 2003

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1 OFFICIAL CONTACT POINT

- 1.1 The Ministry of Agriculture and Forestry is the official contact point in New Zealand for overseas National Plant Protection Organisations (NPPO) and importers. Any enquiries about this import health standard and requests for copies of this standard should be addressed to:

Director, Forest Biosecurity
Ministry of Agriculture and Forestry
PO Box 2526
Wellington, NEW ZEALAND

Fax: 64 4 470 2741
E-mail: forestihs@maf.govt.nz
<http://www.maf.govt.nz>

- 1.2 Import health standards for forest produce and other related documents are available at the following web site address:
<http://www.maf.govt.nz/biosecurity/imports/forests/>

2 GENERAL IMPORT REQUIREMENTS

2.1 SCOPE

2.1.1 This import health standard describes the phytosanitary requirements that must be met for Bark to be given biosecurity clearance into New Zealand.

2.2 REFERENCES

2.2.1 This import health standard has been developed under the requirements of the Biosecurity Act (1993) and in regard to New Zealand's obligations under the International Plant Protection Convention (1997).

Compliance with the provisions of this import health standard does not absolve the importer of the need to comply with other laws relating to or prohibiting the importation of goods (e.g. Trade in Endangered Species Act 1989, Customs and Excise Act 1996).

2.2.2 This import health standard refers to the following documents:

- ◆ International Standard for Phytosanitary Measures, Glossary of Phytosanitary Terms, Pub. No. 5, 2001. <http://www.ippc.int/IPPEn/default.htm>
- ◆ International Standard for Phytosanitary Measures, Guidelines for phytosanitary certificates, Pub. No. 12, 2001. <http://www.ippc.int/IPPEn/default.htm>

2.3 DEFINITIONS AND ABBREVIATIONS

2.3.1 Any terms defined in the Biosecurity Act (1993) or by the International Plant Protection Convention (1997) and used in but not otherwise defined in this import health standard have the same meaning as in the Act, or as in ISPM Pub. No. 5, 2001.

Bark	The outer protective covering of a tree formed by the cork cambium and phloem tissues.
Bark-free wood	Wood from which all bark excluding vascular cambium, ingrown bark around knots, and bark pockets between rings of annual growth has been removed [ISPM Pub. No. 15, 2002].
Biosecurity Clearance	A clearance under section 22 of the Biosecurity Act (1993) for the entry of goods into New Zealand.
Certificate	An official document which attests to the phytosanitary status of any consignment affected by phytosanitary regulations [FAO, 1990].
Commodity	A type of plant, plant product or other regulated article being moved for trade or other purpose [ICPM, 2001]
Consignment	A quantity of plants, plant products and/or other articles being moved from one country to another and covered, when required, by a single phytosanitary certificate (a

	consignment may be composed of one or more commodities or lots). [ICPM, 2001]
Contamination	Presence in a commodity, storage place, conveyance or container, of pests or other regulated articles, not constituting an infestation [CEPM, 1999].
Forest Produce	for the purposes of this standard means timber, timber produce, wood packaging material, and the produce of trees including bark, and seeds or tree parts for propagation, but does not include any produce for human or animal consumption.
Import health standard	Document issued under section 22 of the Biosecurity Act 1993 that “..... specifies the requirements to be met for the effective management of risks associated with the importation of risk goods before those goods can be imported, moved from a biosecurity control area, or a transitional facility, or given biosecurity clearance”.
Import permit	Official document authorising importation of a commodity in accordance with specified phytosanitary requirements [FAO, 1995].
Importer	May be an individual or company, including importer’s agent.
Inspection	Official visual examination of plants, plant products or other regulated articles to determine if pests are present and/or to determine compliance with phytosanitary regulations [FAO, 1995].
International Standard for Phytosanitary Measures (ISPM)	An international standard adopted by the Conference of FAO, the Interim Commission on Phytosanitary Measures or the Commission on Phytosanitary Measures, established under the IPPC [CEPM, 1999].
IPPC	International Plant Protection Convention, as deposited in 1951 with FAO in Rome and subsequently amended [ICPM, 2001].
Lot	A number of units of a single commodity, identifiable by its homogeneity of composition, origin etc., forming part of a consignment [FAO, 1990].
MAF	The Ministry of Agriculture and Forestry, New Zealand.
National Plant Protection Organisation (NPPO)	Official service established by a government to discharge the functions specified by the IPPC [FAO, 1990].

Organism	<p>Biotic entity capable of reproduction or replication, vertebrate or invertebrate animals, plants and micro-organisms [ISPM Pub. No. 3, 1996]</p> <p>Within New Zealand, an organism, defined by the New Zealand Biosecurity Act (1993);</p> <ul style="list-style-type: none"> (a) Does not include a human being or a genetic structure derived from a human being; (b) Includes a micro-organism; (c) Subject to paragraph (a) of this definition, includes a genetic structure that is capable of replicating itself (whether that structure comprises all or only part of an entity, and whether it comprises all or only part of the total genetic structure of an entity): (d) Includes an entity (other than a human being) declared by the Governor-General by Order in Council to be an organism for the purposes of this Act: (e) Includes a reproductive cell or developmental stage of an organism: (f) Includes any particle that is a prion.
Pest	<p>Any species, strain or biotype of plant, animal or pathogenic agent, injurious to plants or animals (or their products) or human health or the environment.</p>
Phytosanitary measure	<p>Any legislation, regulation or official procedure having the purpose to prevent the introduction and/or spread of quarantine pests, or to limit the economic impact of regulated non-quarantine pests [IPPC, 1997].</p>
Quarantine pest	<p>A pest of potential economic importance to the area endangered thereby and not yet present there, or present but not widely distributed and being officially controlled [IPPC, 1997].</p>
Regulated pest	<p>A quarantine pest or a regulated non-quarantine pest [IPPC, 1997].</p>
Treatment	<p>Officially authorised procedure for the killing or removal of pests or rendering pests infertile [ICPM Pub. No. 15, 2002]</p>
Wood	<p>A commodity class for round wood, sawn wood, wood chips or dunnage, with or without bark [ICPM, 2001].</p>

2.4 GENERAL INFORMATION

- 2.4.1 All forest produce is PROHIBITED entry into New Zealand, unless it complies with the requirements of an import health standard that has been issued in accordance with Section 22 of the Biosecurity Act (1993).
- 2.4.2 As specified in the Hazardous Substances and New Organisms Act (1996), proposals for the deliberate introduction of new organisms (including genetically modified organisms) as defined by the Act should be referred to the Environment Risk Management Authority, PO Box 131, Wellington.
- 2.4.3 MAF categorises pests associated with forest produce into regulated and non-regulated pests. Lists of regulated and non-regulated pests for the commodities covered by this standard are attached as appendices to this import health standard.
- 2.4.4 When an unlisted pest is found on any imported forest produce it will be categorised and added to the appropriate pest list.

3. SPECIFIC IMPORT REQUIREMENTS FOR BARK

3.1 GENERAL REQUIREMENTS

- 3.1.1 Imported bark includes items such as bark chips, cork, or items containing unprocessed bark.
- 3.1.2 Ground or fine chopped bark imported as a food additive is exempt from the requirements of this import health standard.
- 3.1.3 A consignment of bark must be:
- a) free of regulated pests (see Appendix 1 (a));
 - b) no greater in volume than 40 cubic metres;
 - c) shipped in lots of no more than 2 cubic metres in volume and packaged in clear plastic wrapping (if shipped in bulk);
 - d) packed and shipped in a manner that prevents infestation and/or contamination by regulated pests. MAF considers the following as examples of appropriate packaging: plastic wrapping, 6 sided boxing, closed shipping containers;
 - e) relatively free of extraneous material (e.g. leaves, soil). MAF considers a contamination rate of 0.01% w/w extraneous material is considered acceptable.

3.2 TREATMENT REQUIREMENTS

- 3.2.1 Any treatment completed prior to import must comply with the requirements of this import health standard, or an equivalent treatment(s) approved by MAF.
- 3.2.2 If the bark is fumigated or heat-treated prior to export the bark must be treated no more than twenty-one (21) days before export to New Zealand.

3.3 TREATMENT OPTIONS

MAF accepts one or more of the following treatment options for bark.

- 3.3.1 Fumigation, in separate units no larger than 2 m³, with methyl bromide at the rates and temperatures indicated in the table below, for more than 24 continuous hours.

Concentration (g/m ³)	Temperature (°C)
72	6 – 10
64	11 – 15
56	16 – 20
48	20+

- 3.3.2 Heat treatment for more than 4 hours at a minimum continuous core temperature of 70°C.

3.4 CERTIFICATION REQUIREMENTS

- 3.4.1 An import permit is not required to import bark into New Zealand.

- 3.4.2 For the purpose of providing certification of the treatment status of consignments to be imported into New Zealand, the importer may use a:

- a) phytosanitary certificate issued by the NPPO and based on the model certificate included in ISPM 12;
- b) phytosanitary certificate issued by the NPPO other than the certificate specified in (a) to which the following is to be included;

"The bark in this consignment has been inspected according to appropriate official procedures and is considered to be free from the regulated pests specified by MAF, and to conform with New Zealand's current phytosanitary requirements".

- c) treatment certificate issued by the manufacturer or operator/manager of the treatment company.

- 3.4.3 All certification must be original, free of alterations and erasures, and printed in English.

3.5 CERTIFICATE INFORMATION

- 3.5.1 If used, a certificate must contain the following information:

- A full description of the consignment and wood component
- All relevant identification marks and brands
- The number and/or volume of items treated
- The container number (where applicable)
- The following additional declarations (where applicable)

- 3.5.2 Certificates for consignments that have been fumigated may contain the following declaration:

“The bark has been fumigated, in units no larger than 2 m³, with methyl bromide at ___ (Fumigant concentration (g/m³)) ___ for ___ (Duration of treatment) ___ at a minimum temperature of ___ (Minimum temperature during treatment) ___ on the ___ (Date of treatment (dd/mm/yy)) ___.”

3.5.3 Certificates for consignments that have been heat-treated may contain the following declaration:

“The bark has been heated for ___ (Duration of treatment) ___ at a minimum core temperature of ___ (Minimum core temperature during treatment) ___ on the ___ (Date of treatment (dd/mm/yy)) ___.”

3.6 TRANSIT REQUIREMENTS

3.6.1 Where a consignment is split or has its packaging changed while in another country (or countries) *en route* to New Zealand, a "Re-export Certificate" issued by a NPPO is required where the treatment of the bark has been certified.

3.6.2 Where a consignment is held under bond as a result of the need to change conveyances and is kept in the original shipping container, a "Re-export Certificate" is not required.

4 REQUIREMENTS ON ARRIVAL IN NEW ZEALAND

4.0.1 The importer shall meet all costs specified in the Biosecurity (Costs) Regulations (2003) associated with the inspection, treatment (if required) and clearance of goods imported under this standard.

4.1 INSPECTION ON ARRIVAL IN NEW ZEALAND

4.1.1 New Zealand MAF will check the accompanying documentation on arrival to confirm that it reconciles with the actual consignment.

4.1.2 If original and appropriate certification is NOT provided the bark will be considered untreated.

4.1.3 If the bark was NOT packaged in a manner considered by MAF to adequately protect the bark from re-infestation after treatment, or was NOT shipped within the required time period after treatment, the bark will be considered untreated.

4.1.4 Each consignment of:

- untreated **commercially** imported bark will be treated (fumigated or heat treated as per the treatment specifications stated in section 3.3), reshipped, or destroyed.
- treated **commercially** imported bark will have an 8 kg random sample (or whole consignment, whichever is the lesser) inspected for evidence of pests or extraneous organic material to verify that the treatment was effective.
- **privately** imported bark will either be inspected for evidence of pests or extraneous organic material (e.g. leaves, twigs, soil), or treated (as per the

treatment specifications stated in section 3.3), reshipped, or destroyed if considered likely to harbour pests.

- 4.1.5 All inspections completed on arrival in New Zealand of commercial consignments shall be carried out in a transitional facility approved by MAF for that purpose.

4.2 ACTIONS UNDERTAKEN ON THE INTERCEPTION/DETECTION OF ORGANISMS/CONTAMINANTS

- 4.2.1 All organisms detected on the bark shall be identified to determine the regulatory status of the organism regardless of the treatment(s) or action(s) undertaken.
- 4.2.2 If regulated pests are intercepted/detected on the commodity, or associated packaging, the following actions will be undertaken as appropriate (depending on the pest identified, see Appendix 1(a)):
- Reshipment of the consignment or lot;
 - Destruction of the consignment or lot;
 - Treatment (where possible) of the consignment or lot at the discretion of the Director, Forest Biosecurity;
 - The suspension of trade, until the cause of the non-compliance is investigated, identified and rectified to the satisfaction of New Zealand MAF.
- 4.2.3 Lots contaminated with greater than 0.01% w/w soil or other extraneous organic material (e.g. leaves, twigs) shall have the contaminating material removed (if possible), or be treated, re-shipped or destroyed.
- 4.2.4 All treatments completed on arrival in New Zealand shall be carried out in a transitional facility approved by MAF for that purpose. Goods treated under MAF supervision do not require further inspection under this standard.

4.3 BIOSECURITY CLEARANCE

- 4.3.1 If the requirements of this import health standard have been met, and regulated pests are not detected or are successfully treated following interception/detection, biosecurity clearance will be given.

Appendix 1 (a)

List of Regulated Pests Potentially Associated with Bark

Scientific Name	Organism Type	Common Name	MAF Approved Phytosanitary Treatment Options (see Note)	Contingency for interception
Micro-organisms				
<i>Atropellis tingens</i>	Fungus	Canker	Heat	Treatment, Reshipping or Destruction
<i>Caliciopsis pinea</i>	Fungus	Canker	Heat	Treatment, Reshipping or Destruction
<i>Calonectria ilicicola</i>	Fungus	Collar rot	Heat	Treatment, Reshipping or Destruction
<i>Calonectria indusiata</i>	Fungus	Root & stem rot	Heat	Treatment, Reshipping or Destruction
<i>Cronartium quercuum</i>	Fungus	Pine blister rust	Heat	Treatment, Reshipping or Destruction
<i>Cronartium quercuum</i> f.sp. <i>fusiforme</i>	Fungus	Stem rust	Heat	Treatment, Reshipping or Destruction
<i>Cryphonectria cubensis</i>	Fungus	Basal / stem canker	Heat	Treatment, Reshipping or Destruction
<i>Cryphonectria havanensis</i>	Fungus	Stem canker	Heat	Treatment, Reshipping or Destruction
<i>Dermea pini</i>	Fungus	Shoot blight	Heat	Treatment, Reshipping or Destruction
<i>Elytroderma deformans</i>	Fungus	Needle blight	Heat	Treatment, Reshipping or Destruction
<i>Endocronartium pini</i>	Fungus	Stem rust	Heat	Treatment, Reshipping or Destruction
<i>Gloeophyllum abietinum</i>	Fungus		Heat	Treatment, Reshipping or Destruction
<i>Mucor spinosus</i>	Fungus		Heat	Treatment, Reshipping or Destruction
<i>Ophiostoma</i> sp.	Fungus	Blue stain, wilt	Heat	Treatment, Reshipping or Destruction
<i>Phacidium coniferarum</i>	Fungus	Pine canker, dieback	Heat	Treatment, Reshipping or Destruction
<i>Phellinus noxius</i>	Fungus	Wood rot	Heat	Treatment, Reshipping or Destruction
<i>Sparassis crispa</i>	Fungus	Root and butt rot	Heat	Treatment, Reshipping or Destruction
<i>Trametes trogii</i>	Fungus	Wound parasite	Heat	Treatment, Reshipping or Destruction
<i>Trichaptum abietinus</i>	Fungus	Butt rot	Heat	Treatment, Reshipping or Destruction
Arthropods				
<i>Abantiades latipennis</i>	Hepialidae	Ghost moth	Fumigation, Heat	Treatment, Reshipment or Destruction
<i>Aenetus lignivorus</i>	Hepialidae	Common splendid ghost moth	Fumigation, Heat	Treatment, Reshipment or Destruction
<i>Aenetus paradiseus</i>	Hepialidae	Splendid ghost moth	Fumigation, Heat	Treatment, Reshipment or Destruction
<i>Agrilus opulentus</i>	Buprestidae	Flat headed borer	Fumigation, Heat	Treatment, Reshipment or Destruction
<i>Agrilus sexsignatus</i>	Buprestidae	Varicose borer	Fumigation, Heat	Treatment, Reshipment or Destruction
<i>Anoplophora glabripennis</i>	Cerambycidae	Asian longhorned beetle	Fumigation, Heat	Treatment, Reshipment or Destruction
<i>Anoplophora</i> spp.	Cerambycidae	Longhorned beetles	Fumigation, Heat	Treatment, Reshipment or Destruction
<i>Antheraea helena</i>	Saturniidae	Helena moth	Fumigation, Heat	Treatment, Reshipment or Destruction

Note: Fumigation = Methyl Bromide Fumigation; Heat = 70°C for 4 hours.

Scientific Name	Organism Type	Common Name	MAF Approved Phytosanitary Treatment Options (see Note)	Contingency for interception
<i>Arhopalus productus</i>	Cerambycidae	New house borer	Fumigation, Heat	Treatment, Reshipment or Destruction
<i>Asemum striatum</i>	Cerambycidae	Black spruce borer	Fumigation, Heat	Treatment, Reshipment or Destruction
<i>Austroplatypus incomptus</i>	Platypodidae	Ambrosia beetle	Fumigation, Heat	Treatment, Reshipment or Destruction
<i>Buprestis aurulenta</i>	Buprestidae	Golden buprestid	Fumigation, Heat	Treatment, Reshipment or Destruction
<i>Camponotus abdominalis</i>	Formicidae	Carpenter ant	Fumigation, Heat	Treatment, Reshipment or Destruction
<i>Camponotus pennsylvanicus</i>	Formicidae	Carpenter ant	Fumigation, Heat	Treatment, Reshipment or Destruction
<i>Cardiaspina squamula</i>	Psyllidae	Lerp psyllid	Fumigation, Heat	Treatment, Reshipment or Destruction
<i>Celosterna scabator</i>	Cerambycidae	Longhorn beetle	Fumigation, Heat	Treatment, Reshipment or Destruction
<i>Ceresium declaratum</i>	Cerambycidae	Longhorn beetle	Fumigation, Heat	Treatment, Reshipment or Destruction
<i>Ceresium flavipes</i>	Cerambycidae	Longhorn beetle	Fumigation, Heat	Treatment, Reshipment or Destruction
<i>Ceresium holophaeum</i>	Cerambycidae	Longhorn beetle	Fumigation, Heat	Treatment, Reshipment or Destruction
<i>Ceresium longicorne</i>	Cerambycidae	Longhorn beetle	Fumigation, Heat	Treatment, Reshipment or Destruction
<i>Ceresium nilgiriensis</i>	Cerambycidae	Longhorn beetle	Fumigation, Heat	Treatment, Reshipment or Destruction
<i>Ceresium sinicum</i>	Cerambycidae	Brown twig-girgling longhorn	Fumigation, Heat	Treatment, Reshipment or Destruction
<i>Ceresium sinicum ornaticolle</i>	Cerambycidae	Longhorn beetle	Fumigation, Heat	Treatment, Reshipment or Destruction
<i>Ceresium sinicum sinicum</i>	Cerambycidae	Longhorn beetle	Fumigation, Heat	Treatment, Reshipment or Destruction
<i>Chrysophtharta agricola</i>	Chrysomelidae	Southern eucalyptus leaf beetle	Fumigation, Heat	Treatment, Reshipment or Destruction
<i>Chrysophtharta bimaculata</i>	Chrysomelidae	Tasmanian eucalyptus leaf beetle	Fumigation, Heat	Treatment, Reshipment or Destruction
<i>Coptotermes curvignathus</i>	Rhinotermitidae	Subterranean termite	Fumigation, Heat	Treatment, Reshipment or Destruction
<i>Coptotermes formosanus</i>	Rhinotermitidae	Formosan subterranean termite	Fumigation, Heat	Treatment, Reshipment or Destruction
<i>Cryphalus</i> sp.	Scolytidae	Bark beetle	Fumigation, Heat	Treatment, Reshipment or Destruction
<i>Cryptotermes brevis</i>	Kalotermitidae	West Indian drywood termite	Fumigation, Heat	Treatment, Reshipment or Destruction
<i>Ctenarytaina eucalyti</i>	Homoptera	Blue-gum psyllid	Fumigation, Heat	Treatment, Reshipment or Destruction
<i>Dendroctonus adjuncatus</i>	Scolytidae	Roundheaded pine beetle	Fumigation, Heat	Treatment, Reshipment or Destruction
<i>Dendroctonus brevicomis</i>	Scolytidae	Western pine beetle	Fumigation, Heat	Treatment, Reshipment or Destruction
<i>Dendroctonus frontalis</i>	Scolytidae	Southern pine beetle	Fumigation, Heat	Treatment, Reshipment or Destruction
<i>Dendroctonus ponderosae</i>	Scolytidae	Mountain pine beetle	Fumigation, Heat	Treatment, Reshipment or Destruction
<i>Dendroctonus terebrans</i>	Scolytidae	Black turpentine beetle	Fumigation, Heat	Treatment, Reshipment or Destruction
<i>Dendroctonus valens</i>	Scolytidae	Red turpentine beetle	Fumigation, Heat	Treatment, Reshipment or Destruction
<i>Dicera horni</i>	Buprestidae	Flatheaded borer	Fumigation, Heat	Treatment, Reshipment or Destruction
<i>Didymuria violescens</i>	Phasmatidae	Spurlegged phasmatid	Fumigation, Heat	Treatment, Reshipment or Destruction
<i>Doratifera vulnerans</i>	Limacodidae	Mottled cup moth	Fumigation, Heat	Treatment, Reshipment or Destruction
<i>Dryocoetes</i> sp.	Scolytidae	Bark beetle	Fumigation, Heat	Treatment, Reshipment or Destruction

Note: Fumigation = Methyl Bromide Fumigation; Heat = 70°C for 4 hours.

Scientific Name	Organism Type	Common Name	MAF Approved Phytosanitary Treatment Options (see Note)	Contingency for interception
<i>Epithora dorsalis</i>	Cerambycidae	Longhorn beetle	Fumigation, Heat	Treatment, Reshipment or Destruction
<i>Ergates spiculatus</i>	Cerambycidae	Ponderous borer	Fumigation, Heat	Treatment, Reshipment or Destruction
<i>Eriococcus coriaceus</i>	Homoptera	Gum tree scale	Fumigation, Heat	Treatment, Reshipment or Destruction
<i>Euloxia meandraria</i>	Geometridae	Looper caterpillar	Fumigation, Heat	Treatment, Reshipment or Destruction
<i>Glycaspis cameloides</i>	Spondyliaspidae	Lerp psyllid	Fumigation, Heat	Treatment, Reshipment or Destruction
<i>Glycaspis endasa</i>	Spondyliaspidae	Lerp psyllid	Fumigation, Heat	Treatment, Reshipment or Destruction
<i>Glycaspis nigrocincta</i>	Spondyliaspidae	Lerp psyllid	Fumigation, Heat	Treatment, Reshipment or Destruction
<i>Glycaspis particeps</i>	Spondyliaspidae	Lerp psyllid	Fumigation, Heat	Treatment, Reshipment or Destruction
<i>Gnathotrichus retusus</i>	Scolytidae	Spring gnathotrichus	Fumigation, Heat	Treatment, Reshipment or Destruction
<i>Gnathotrichus</i> spp.	Scolytidae	Ambrosia beetle	Fumigation, Heat	Treatment, Reshipment or Destruction
<i>Gnathotrichus sulcatus</i>	Scolytidae	Scratched-face ambrosia beetle	Fumigation, Heat	Treatment, Reshipment or Destruction
<i>Hemicoelus gibbicollis</i>	Anobiidae	Pacific powderpost beetle	Fumigation, Heat	Treatment, Reshipment or Destruction
<i>Hesperophanes campestris</i>	Cerambycidae	Longhorn beetle	Fumigation, Heat	Treatment, Reshipment or Destruction
<i>Hesperophanes fasciculatus</i>	Cerambycidae	Longhorn beetle	Fumigation, Heat	Treatment, Reshipment or Destruction
<i>Hesperophanes griseus</i>	Cerambycidae	Longhorn beetle	Fumigation, Heat	Treatment, Reshipment or Destruction
<i>Hesperophanes heydeni</i>	Cerambycidae	Longhorn beetle	Fumigation, Heat	Treatment, Reshipment or Destruction
<i>Hesperophanes maculatus</i>	Cerambycidae	Longhorn beetle	Fumigation, Heat	Treatment, Reshipment or Destruction
<i>Hesperophanes</i> spp.	Cerambycidae	Longhorn beetle	Fumigation, Heat	Treatment, Reshipment or Destruction
<i>Hesthesis cingulata</i>	Cerambycidae	Longhorn beetle	Fumigation, Heat	Treatment, Reshipment or Destruction
<i>Heterobostrychus aequalis</i>	Bostrichidae	Bostrychid beetle	Fumigation, Heat	Treatment, Reshipment or Destruction
<i>Heteronyx crinitus</i>	Scarabaeidae	Scarab beetle	Fumigation, Heat	Treatment, Reshipment or Destruction
<i>Heteronyx</i> n. sp. var. <i>comans</i>	Scarabaeidae	Scarab beetle	Fumigation, Heat	Treatment, Reshipment or Destruction
<i>Heteronyx striatipennis</i> var. <i>jabatus</i>	Scarabaeidae	Scarab beetle	Fumigation, Heat	Treatment, Reshipment or Destruction
<i>Hylobius abietis</i>	Curculionidae	Large pine weevil	Fumigation, Heat	Treatment, Reshipment or Destruction
<i>Hylobius pales</i>	Curculionidae	Pales weevil	Fumigation, Heat	Treatment, Reshipment or Destruction
<i>Hylobius radialis</i>	Curculionidae	Pine root collar weevil	Fumigation, Heat	Treatment, Reshipment or Destruction
<i>Hylobius warreni</i>	Curculionidae	Warren's collar weevil	Fumigation, Heat	Treatment, Reshipment or Destruction
<i>Hypertropha tortriciformis</i>	Hypertrophidae	Don't know	Fumigation, Heat	Treatment, Reshipment or Destruction
<i>Incisitermes</i> spp.	Kalotermitidae	Drywood termites	Fumigation, Heat	Treatment, Reshipment or Destruction
<i>Ips acuminatus</i>	Scolytidae	Bark beetle	Fumigation, Heat	Treatment, Reshipment or Destruction
<i>Ips calligraphus</i>	Scolytidae	Eastern six-spined engraver	Fumigation, Heat	Treatment, Reshipment or Destruction
<i>Ips erosus</i>	Scolytidae	Mediterranean pine engraver	Fumigation, Heat	Treatment, Reshipment or Destruction
<i>Ips grandicollis</i>	Scolytidae	Eastern five-spined engraver	Fumigation, Heat	Treatment, Reshipment or Destruction

Note: Fumigation = Methyl Bromide Fumigation; Heat = 70°C for 4 hours.

Scientific Name	Organism Type	Common Name	MAF Approved Phytosanitary Treatment Options (see Note)	Contingency for interception
<i>Ips mexicanus</i>	Scolytidae	Monterey pine ips	Fumigation, Heat	Treatment, Reshipment or Destruction
<i>Ips paraconfusus</i>	Scolytidae	California five-spined ips	Fumigation, Heat	Treatment, Reshipment or Destruction
<i>Ips pini</i>	Scolytidae	Pine engraver	Fumigation, Heat	Treatment, Reshipment or Destruction
<i>Ips plastographus maritimus</i>	Scolytidae	Bark beetle	Fumigation, Heat	Treatment, Reshipment or Destruction
<i>Ips sexdentatus</i>	Scolytidae	Six-toothed bark beetle	Fumigation, Heat	Treatment, Reshipment or Destruction
<i>Ips typographus</i>	Scolytidae	European spruce bark beetle	Fumigation, Heat	Treatment, Reshipment or Destruction
<i>Lophyrotoma interrupta</i>	Pergidae	Cattle poisoning sawfly	Fumigation, Heat	Treatment, Reshipment or Destruction
<i>Macrones rufus</i>	Cerambycidae	Longhorn beetle	Fumigation, Heat	Treatment, Reshipment or Destruction
<i>Melanophila californica</i>	Buprestidae	California flatheaded borer	Fumigation, Heat	Treatment, Reshipment or Destruction
<i>Mnesampela privata</i>	Geometridae	Autumn gum moth	Fumigation, Heat	Treatment, Reshipment or Destruction
<i>Monochamus alternatus</i>	Cerambycidae	Rusty pine longhorn	Fumigation, Heat	Treatment, Reshipment or Destruction
<i>Monochamus bimaculatus</i>	Cerambycidae	Sawyer beetle	Fumigation, Heat	Treatment, Reshipment or Destruction
<i>Monochamus clamator</i>	Cerambycidae	Spotted pine sawyer	Fumigation, Heat	Treatment, Reshipment or Destruction
<i>Monochamus gravidus</i>	Cerambycidae	Sawyer beetle	Fumigation, Heat	Treatment, Reshipment or Destruction
<i>Monochamus guerryi</i>	Cerambycidae	Sawyer beetle	Fumigation, Heat	Treatment, Reshipment or Destruction
<i>Monochamus guttatus</i>	Cerambycidae	Sawyer beetle	Fumigation, Heat	Treatment, Reshipment or Destruction
<i>Monochamus impluviatus</i>	Cerambycidae	Sawyer beetle	Fumigation, Heat	Treatment, Reshipment or Destruction
<i>Monochamus notatus</i>	Cerambycidae	Northeastern sawyer	Fumigation, Heat	Treatment, Reshipment or Destruction
<i>Monochamus obtusus</i>	Cerambycidae	Sawyer beetle	Fumigation, Heat	Treatment, Reshipment or Destruction
<i>Monochamus saltuarius</i>	Cerambycidae	Sawyer beetle	Fumigation, Heat	Treatment, Reshipment or Destruction
<i>Monochamus scutellatus</i>	Cerambycidae	White-spotted sawyer beetle	Fumigation, Heat	Treatment, Reshipment or Destruction
<i>Monochamus sparsutus</i>	Cerambycidae	Sawyer beetle	Fumigation, Heat	Treatment, Reshipment or Destruction
<i>Monochamus sutor</i>	Cerambycidae	Small white-marmorated longicorn	Fumigation, Heat	Treatment, Reshipment or Destruction
<i>Monochamus urusovi</i>	Cerambycidae	Sawyer beetle	Fumigation, Heat	Treatment, Reshipment or Destruction
<i>Nacerdes melanura</i>	Oedemeridae	Wharf borer	Fumigation, Heat	Treatment, Reshipment or Destruction
<i>Nascioides parryi</i>	Buprestidae	Flatheaded borer	Fumigation, Heat	Treatment, Reshipment or Destruction
<i>Orthotomicus erosus</i>	Scolytidae	See <i>Ips erosus</i>	Fumigation, Heat	Treatment, Reshipment or Destruction
<i>Orthotomicus</i> sp.	Scolytidae	Bark beetle	Fumigation, Heat	Treatment, Reshipment or Destruction
<i>Paralaea beggaria</i>	Geometridae	Peppermint looper	Fumigation, Heat	Treatment, Reshipment or Destruction
<i>Paropsis atomaria</i>	Chrysomelidae	Eucalyptus tortoise beetle	Fumigation, Heat	Treatment, Reshipment or Destruction
<i>Paropsis delittlei</i>	Chrysomelidae	Eucalyptus tortoise beetle	Fumigation, Heat	Treatment, Reshipment or Destruction
<i>Perga affinis insularis</i>	Pergidae	Large green sawfly	Fumigation, Heat	Treatment, Reshipment or Destruction
<i>Phlyctaenodes pustulosus</i>	Cerambycidae	Longhorn beetle	Fumigation, Heat	Treatment, Reshipment or Destruction

Note: Fumigation = Methyl Bromide Fumigation; Heat = 70°C for 4 hours.

Scientific Name	Organism Type	Common Name	MAF Approved Phytosanitary Treatment Options (see Note)	Contingency for interception
<i>Phoracantha recurva</i>	Cerambycidae	Yellow longicorn	Fumigation, Heat	Treatment, Reshipment or Destruction
<i>Phoracantha tricuspis</i>	Cerambycidae	Common longicorn beetle	Fumigation, Heat	Treatment, Reshipment or Destruction
<i>Phylacteophaga</i> sp.	Hymenoptera	Leafblister sawfly	Fumigation, Heat	Treatment, Reshipment or Destruction
<i>Pissodes nemorensis</i>	Curculionidae	Deodar weevil	Fumigation, Heat	Treatment, Reshipment or Destruction
<i>Platypus subgranosus</i>	Platypodidae	Mountain pinhole borer	Fumigation, Heat	Treatment, Reshipment or Destruction
<i>Platypus wilsoni</i>	Scolytidae	Wilson's wide-headed ambrosia beetle	Fumigation, Heat	Treatment, Reshipment or Destruction
<i>Podacanthus wilkinsoni</i>	Phasmatidae	Gregarious phasmatid	Fumigation, Heat	Treatment, Reshipment or Destruction
<i>Porotermes adamsonii</i>	Termopsidae	Dampwood termite	Fumigation, Heat	Treatment, Reshipment or Destruction
<i>Psaltoda moerens</i>	Cicadidae	Red eye cicada	Fumigation, Heat	Treatment, Reshipment or Destruction
<i>Pseudoperga lewisii</i>	Pergidae	Pale brown sawfly	Fumigation, Heat	Treatment, Reshipment or Destruction
<i>Reticulitermes hesperus</i>	Rhinotermitidae	Western subterranean termite	Fumigation, Heat	Treatment, Reshipment or Destruction
<i>Rhachiodes dentifer</i>	Curculionidae	Weevil	Fumigation, Heat	Treatment, Reshipment or Destruction
<i>Schedotrioza marginata</i>	Triozidae	Psyllid	Fumigation, Heat	Treatment, Reshipment or Destruction
<i>Schedotrioza multitudinea</i>	Triozidae	Psyllid	Fumigation, Heat	Treatment, Reshipment or Destruction
<i>Scolecobrotus westwoodi</i>	Cerambycidae	Roughshouldered longicorn	Fumigation, Heat	Treatment, Reshipment or Destruction
<i>Scolytus</i> spp.	Scolytidae	Engraver beetle	Fumigation, Heat	Treatment, Reshipment or Destruction
<i>Semanotus litigiosus</i>	Cerambycidae	Fir tree borer	Fumigation, Heat	Treatment, Reshipment or Destruction
<i>Semanotus ligneus ampla</i>	Cerambycidae	Cedar tree borer	Fumigation, Heat	Treatment, Reshipment or Destruction
<i>Shirahoshizo</i> sp.	Cucurlionidae	Pine weevil	Fumigation, Heat	Treatment, Reshipment or Destruction
<i>Sirex cyaneus</i>	Siricidae	Blue horntail or woodwasp	Fumigation, Heat	Treatment, Reshipment or Destruction
<i>Sirex juvencus</i>	Siricidae	Woodwasp	Fumigation, Heat	Treatment, Reshipment or Destruction
<i>Strongylorhinus ochraceous</i>	Curculionidae	Weevil	Fumigation, Heat	Treatment, Reshipment or Destruction
<i>Syarbis alcyone</i>	Curculionidae	Weevil	Fumigation, Heat	Treatment, Reshipment or Destruction
<i>Tetropium cinnamopterum parvulum</i>	Cerambycidae	Northern spruce borer	Fumigation, Heat	Treatment, Reshipment or Destruction
<i>Tetropium fuscum</i>	Cerambycidae	Brown spruce longhorn beetle	Fumigation, Heat	Treatment, Reshipment or Destruction
<i>Tetropium velutinum</i>	Cerambycidae	Western larch borer	Fumigation, Heat	Treatment, Reshipment or Destruction
<i>Tomicus piniperda</i>	Scolytidae	Pine shoot beetle	Fumigation, Heat	Treatment, Reshipment or Destruction
<i>Trachykele blondeli</i>	Buprestidae	Western cedar borer	Fumigation, Heat	Treatment, Reshipment or Destruction
<i>Tryphocaria mastersi</i>	Cerambycidae	Bulls-eye borer	Fumigation, Heat	Treatment, Reshipment or Destruction
<i>Trypodendron lineatum</i>	Scolytidae	Striped ambrosia beetle	Fumigation, Heat	Treatment, Reshipment or Destruction
<i>Uraba lugens</i>	Noctuidae	Gum leak skeletoniser	Fumigation, Heat	Treatment, Reshipment or Destruction
<i>Urocerus albicornis</i>	Siricidae	Banded horntail or woodwasp	Fumigation, Heat	Treatment, Reshipment or Destruction
<i>Xyleutes</i> spp.	Cossidae	Wood moth	Fumigation, Heat	Treatment, Reshipment or Destruction

Note: Fumigation = Methyl Bromide Fumigation; Heat = 70°C for 4 hours.

Scientific Name	Organism Type	Common Name	MAF Approved Phytosanitary Treatment Options (see Note)	Contingency for interception
<i>Xylosandrus crassiusculus</i>	Scolytidae	Asian ambrosia beetle	Fumigation, Heat	Treatment, Reshipment or Destruction
<i>Zootermopsis angusticollis</i>	Hodotermitidae	Pacific dampwood termite	Fumigation, Heat	Treatment, Reshipment or Destruction
<i>Zyocera canosa</i>	Cerambycidae	Longhorn beetle	Fumigation, Heat	Treatment, Reshipment or Destruction
Nematodes				
<i>Bursaphelenchus</i> spp.	Nematode	Pine wood nematode	Fumigation, Heat	Treatment, Reshipment or Destruction
<i>Bursaphelenchus xylophilus</i>	Nematode	Pine wilt nematode	Fumigation, Heat	Treatment, Reshipment or Destruction

Appendix 1 (b)

List of Non-Regulated Pests Potentially Associated with Bark

Scientific Name	Organism Type	Common Name	MAF Approved Phytosanitary Treatment Options (see Note)	Contingency for interception
Micro-organisms				
<i>Epicoccum nigrum</i>	Fungus	Sooty mould, leaf spot	None Required	None
<i>Fusarium oxysporum</i>	Fungus	Root rot	None Required	None
<i>Lasiodiplodia theobromae</i>	Fungus	Java black rot	None Required	None
<i>Nectria haematococca</i> (anamorph <i>Fusarium solani</i>)	Fungus	Root rot	None Required	None
<i>Nigrospora sphaerica</i>	Fungus	Nigrospora rot	None Required	None
<i>Polyporus arcularius</i>	Fungus		None Required	None
<i>Schizophyllum commune</i>	Fungus		None Required	None
<i>Trametes hirsuta</i>	Fungus		None Required	None
<i>Trichoderma harzianum</i>	Fungus	Trichoderma rot	None Required	None
<i>Trichoderma viride</i>	Fungus	Green mould	None Required	None
Arthropods				
<i>Gonipterus scutellatus</i>	Curculionidae	Gum tree weevil	None required	None
<i>Hylastes ater</i>	Scolytidae	Black pine bark beetle	None required	None
<i>Hylurgus ligniperda</i>	Scolytidae	Golden haired bark beetle	None required	None
<i>Phloeosinus cupressi</i>	Scolytidae	Cypress bark beetle	None required	None
<i>Phoracantha semipunctata</i>	Cerambycidae	Common eucalypt longhorn	None required	None
<i>Scolytus multistriatus</i>	Scolytidae	Smaller European elm bark beetle	None required	None

Note: Fumigation = Methyl Bromide Fumigation; Heat = 70°C for 4 hours.