BIOSECURITY NEW ZEALAND

STANDARD 155.02.06

Importation of Nursery Stock

Issued as an import health standard pursuant to section 22 of the Biosecurity Act 1993

Biosecurity New Zealand
Ministry of Agriculture and Forestry
PO Box 2526
Wellington
New Zealand
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ENDORSEMENT

This Biosecurity New Zealand standard is hereby approved. Pursuant to section 22 of the Biosecurity Act 1993, I hereby issue this document as an import health standard.

Signature of Manager, Biosecurity Standards Group  
Acting pursuant to delegated authority  
Date: 1 March 2005

REVIEW

This Biosecurity New Zealand standard is subject to ongoing review. Amendments will be made to the signed original as required. The signed original will be held by the Biosecurity Standards Group, Biosecurity New Zealand, Ministry of Agriculture and Forestry, ASB Bank House, 101-103 The Terrace, Wellington.
AMENDMENT RECORD

Amendments to this standard will be given a consecutive number and will be dated in the body of the table and in the footer. Brief details of the amended pages will be included.

<table>
<thead>
<tr>
<th>No:</th>
<th>Details:</th>
<th>Date:</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Section 2.2.1.7 <em>Pesticide treatments for dormant bulbs</em></td>
<td>27 April 2005</td>
</tr>
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<td>2</td>
<td><em>Lilium</em> schedule of special conditions, sections 2.2.1.6, 2.2.1.7 and 2.2.2.</td>
<td>17 June 2005</td>
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</tbody>
</table>
1. INTRODUCTION

1.1 OFFICIAL CONTACT POINT (NEW ZEALAND NATIONAL PLANT PROTECTION ORGANISATION)

The official contact point in New Zealand for overseas NPPOs is the Ministry of Agriculture and Forestry. All communication pertaining to this import health standard should be addressed to:

Biosecurity New Zealand
Ministry of Agriculture and Forestry
PO Box 2526
Wellington
NEW ZEALAND

Telephone: +64 4 498 9843  Fax: +64 4 498 9888
E-mail: plantimports@maf.govt.nz  Website: http://www.maf.govt.nz

1.2 SCOPE

This standard describes the import specifications and entry conditions for nursery stock imported into New Zealand.

1.3 REFERENCES

- Biosecurity Act 1993 (as amended by the Biosecurity Amendment Act 1997)
- International Plant Protection Convention (IPPC)
- Biosecurity New Zealand Standard PBC-NZ-TRA-PQCON: Specification for the Registration of a Plant Quarantine or Containment Facility, and Operator
- Biosecurity New Zealand Standard PIT-OS-TRA-ACPQF: Accreditation of Offshore Plant Quarantine Facilities and Operators
- Biosecurity New Zealand Standard 155.04.03: Specification for the Registration of a Plant Pest Diagnostic Laboratory, and Operator

1.4 DEFINITIONS AND ABBREVIATIONS

a.i.: Active ingredient.

Basic: The basic conditions with which all consignments of nursery stock must comply.

Budwood: See Cuttings

Bulb: A thickened, vegetative part of a plant in a dormant state, e.g., true bulbs, bulbils, corms, tubers and rhizomes.
**Cuttings:** A nursery stock commodity sub-class for budwood and cutting propagation material that are stems only (no roots). Cuttings may be required to be dormant (no leaves).

**Environmental Risk Management Authority (ERMA):** Authority responsible for administering the Hazardous Substances and New Organisms Act 1996.

**Genetically Modified Organism:** (as defined by the HSNO Act 1996): Any organism in which any of the genes or any other genetic material:

a. has been modified by *in-vitro* techniques; or

b. is inherited or otherwise derived, through any number of replications, from any genes or other genetic material which has been modified by *in-vitro* techniques.

**Graftstick:** See Cuttings

**Import health standard:** A standard issued under s22 of the New Zealand Biosecurity Act (1993) by the Director-General on the recommendation of a Chief Technical Officer, specifying the requirements to be met for the effective management of risks associated with the importation of risk goods.

**Import Permit:** Official document authorizing importation of a commodity in accordance with specified phytosanitary requirements (Note: Permits for imports into New Zealand are issued by Biosecurity New Zealand).

**Inspector:** Inspector under the Biosecurity Act 1993.

**International Plant Protection Convention:** International Plant Protection Convention, as deposited with FAO in Rome in 1951 and as subsequently amended [FAO, 1990]

**IPPC:** International Plant Protection Convention

**International Standard for Phytosanitary Measures:** 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, 1996; revised CEPM, 1999]

**ISPM:** International Standard for Phytosanitary Measures

**Level 1, Level 2 or Level 3 Quarantine:** A system of post entry quarantine screening whereby nursery stock is grown under certain specified conditions on a property and by a person registered by MAF (see MAF Standard PBC-NZ-TRA-PQCON: Specification for the Registration of a Plant Quarantine or Containment Facility, and Operator

**MAF:** The New Zealand Ministry of Agriculture and Forestry.

**Maximum Pest Limit (MPL):** The maximum level of infestation/contamination allowed within a consignment.

**National Plant Protection Organisation:** Official service established by Government to discharge the functions specified by the IPPC. [FAO, 1990; formerly Plant Protection
NPPO: National Plant Protection Organisation

Nursery Stock: Whole plants or parts of plants imported for growing purposes, e.g. cuttings, scions, budwood, marcots, off-shoots, root divisions, bulbs, corms, tubers and rhizomes.

Permit to Import: See Import permit

Pest: Any species, strain or biotype of plant, animal or pathogenic agent injurious to plants or plant products [FAO, 1990; revised FAO, 1995; IPPC, 1997]

Pest free area: An area in which a specific pest does not occur as demonstrated by scientific evidence and in which, where appropriate, this condition is being officially maintained [FAO, 1995]

Pest free place of production: Place of production in which a specific pest does not occur as demonstrated by scientific evidence and in which, where appropriate, this condition is being officially maintained for a defined period [ISPM Pub. No. 10, 1999]


Plants in tissue culture: Plants in vitro that have been prepared as tissue culture from one parent by asexual reproduction (clonal techniques) under sterile conditions.

Plants in vitro: A commodity class for plants growing in an aseptic medium in a closed container [FAO, 1990; CEPM, 1999; ICPM, 2002 formerly plants in tissue culture].

Post Entry Quarantine (PEQ): The quarantine conditions [Level 3, Level 2, or Level 1 (high or medium security)] under which nursery stock must be grown.

Quarantine Pests (Regulated Organisms): Quarantine pests (regulated organisms) are those pests (organisms) for which phytosanitary actions would be undertaken if they were intercepted/detected. These include new organisms as defined by the Hazardous Substances and New Organisms Act 1996.

Scionwood: See Cuttings

Unit: The basic element selected for sampling. For nursery stock this unit may be a plant, bulb or cutting. For tissue cultures it is the vessel containing the cultures.

Whole Plants: A nursery stock commodity sub-class for rooted cuttings and whole plants.
1.5 GENERAL

Plant species for which entry conditions or import health standards have been developed are listed alphabetically in MAF’s Plants Biosecurity Index.

If a species is not listed in the Plants Biosecurity Index, it means that conditions for import into New Zealand have not been developed. For new organisms (species), including genetically modified organisms, as defined in the Hazardous Substances and New Organisms Act 1996, an application has to be made to the Environmental Risk Management Authority (ERMA) at the following address:

Environmental Risk Management Authority  
PO Box 131  
Wellington  
NEW ZEALAND  
Phone: +64 4 916 2426  Fax: +64 4 914 0433  
E-mail: info@ermanz.govt.nz  Website: http://www.ermanz.govt.nz

If a plant species is not included in the Plants Biosecurity Index, but is considered by an importer to be established in New Zealand, the applicant should provide information, including supporting evidence capable of being verified, to ERMA. If ERMA approves an application, MAF will undertake pest risk analyses and develop import health standards in accordance with the requirements of the Biosecurity Act 1993. Pest risk analyses may be undertaken at the importer’s expense. For inquiries regarding pest risk analyses, please contact the Biosecurity New Zealand at the address given below.

For plant species requiring additional declarations on the phytosanitary certificate, and for which individual import health standards have not as yet been developed, entry conditions are given in section 3.4 of this standard. Pest risk analyses are required for imports of these species for countries other than those listed.

Biosecurity New Zealand can also be contacted for information on permit application procedures and import health standards. Address for Biosecurity New Zealand:

Border Standards  
Biosecurity Standards Group  
Biosecurity New Zealand  
Ministry of Agriculture and Forestry  
P.O. Box 2526  
Wellington  
NEW ZEALAND  
Telephone: +64 4 498 9843  Fax: +64 4 498 9888  
E-mail: plantimports@maf.govt.nz  Website: http://www.maf.govt.nz
1.6 CONVENTION ON INTERNATIONAL TRADE IN ENDANGERED SPECIES

The importation of plants and plant products of some plant species is regulated under the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES), of which New Zealand is a signatory. Regulated plant species, where appropriate, must be accompanied by a valid CITES export permit issued by the appropriate management authority in the country of export. Additional information can be obtained at: http://www.cites.org

A CITES import permit, issued by the Department of Conservation, may also be required by New Zealand legislation for specimens of selected species. Importers are advised to contact the Department of Conservation (http://www.doc.govt.nz) for further information.

2. IMPORT SPECIFICATION AND ENTRY CONDITIONS

2.1 IMPORT SPECIFICATION

Infestation by visually detectable quarantine pests on inspection at the border must not exceed the Maximum Pest Limit (MPL) which is currently set at 0.5%.

To achieve 95% level of confidence that the MPL will not be exceeded, no infested units are permitted in a randomly drawn sample of 600 units (i.e. acceptance number = 0).

2.2 ENTRY CONDITIONS

The following entry conditions have been developed to ensure that imported nursery stock meets the import specification:

a) **Basic Conditions** that apply to all nursery stock, as indicated in the Plants Biosecurity Index and outlined in Section 2.2.1 and 2.2.2.

b) **Special Conditions** that apply to particular types of nursery stock, as indicated in the Plants Biosecurity Index and outlined in the Schedule of Special Conditions in Section 3.4.

2.2.1 Basic Conditions

2.2.1.1 Types of Nursery Stock that may be Imported

Nursery stock requiring only basic entry conditions may be imported in any of the following types, as:

- Cuttings (dormant and/or non-dormant)
- Whole Plants
- Dormant Bulbs and Tubers
- Tissue Culture (see section 2.2.2)
2.2.1.2 Import Permit

An import permit is required unless specified otherwise in section 2.2.2 or a schedule of special conditions. To apply for a permit, complete the Form "Application to Import Plant Material" available from the Permit Office or on MAF’s website:

The completed form should be returned to the Permit Office who will ensure that the PEQ requirements can be met before issuing an import permit.

2.2.1.3 Labelling

Each type of plant in the consignment must be clearly identified with its scientific name (genus and species).

2.2.1.4 Cleanliness

Only inert/synthetic material may be used for the protection, packaging and shipping materials of the nursery stock. Consignments contaminated with soil shall be treated, reshipped or destroyed. The interception of other extraneous matter, where it cannot be readily removed, may result in reshipment or destruction of the consignment.

2.2.1.5 Phytosanitary Certificate

Consignments must be accompanied by a phytosanitary certificate certifying that the nursery stock has been inspected in the exporting country in accordance with appropriate official procedures and found to be free of any visually detectable regulated pests, and conforms with New Zealand's current import requirements. If visually detectable pests are found which are not listed in the import health standard, the certifying NPPO must establish their regulatory status prior to issuing the certificate. This information is available in MAF's "Biosecurity Organisms Register for Imported Commodities":

If a visually detectable pest is not listed in this register, the certifying NPPO must contact MAF (see section 1.1) to establish the regulatory status of the pest.

2.2.1.6 Pesticide treatments for whole plants and cuttings

(a) For whole plants the phytosanitary certificate must have the following additional declaration:
"The plants were raised from seed/cuttings in soil-less rooting media in containers maintained out of contact with the soil".
OR
"The roots of the plants have been dipped in fenamiphos at 1.6g a.i. per litre of water for 30 minutes".
(b) All whole plants and cuttings must be treated for insects and mites as follows unless stated otherwise in the “schedule of special conditions”:

**Insects**

One of the following three treatments is required:

1. Methyl bromide (dormant material only): fumigation for 2 hours at atmospheric pressure at one of the following combinations of rate (g/m$^3$) and temperature (°C):

<table>
<thead>
<tr>
<th>Rate (g/m$^3$)</th>
<th>Temperature (°C)</th>
</tr>
</thead>
<tbody>
<tr>
<td>48</td>
<td>10 – 15</td>
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<tr>
<td>40</td>
<td>16 – 20</td>
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<tr>
<td>32</td>
<td>21 – 27</td>
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<tr>
<td>28</td>
<td>28 – 32</td>
</tr>
</tbody>
</table>

OR

2. Hot water treatment/chemical treatment (dormant material only): immersion in hot water at a constant temperature of 24°C for at least 2 hours, followed by immersion in hot water at a constant temperature of at least 45°C for at least 3 hours (period required at the stated temperatures excluding warm-up times). Immersion in chlorpyrifos dip (2.4 g active ingredient per litre of dip or as per manufacturer's recommendations) containing a non-ionic surfactant for 2 minutes with agitation. The treatment time must be increased to 5 minutes if bubbles remain present on the bulb surface. The dip solution must be used no more than twice or as per manufacturer's recommendations. The chlorpyrifos dip may be incorporated in the hot water treatment.

OR

3. Chemical treatment: spray, or preferably immerse in a dip(s) with agitation, according to the following conditions. The plants must be sprayed/dipped using two active ingredients chosen from the table below, one belonging to the organophosphorous chemical group and the other from a different group. For dipping, the treatment time is normally 2 minutes (except fenvalerate) but must be increased to 5 minutes if bubbles remain present on the plant surface. Dip solutions must be used no more than twice or as per manufacturer's recommendations. All treatments must be carried out in accordance with manufacturer's recommendations using either the recommended label rate or the rates shown in the table below.

<table>
<thead>
<tr>
<th>Chemical group</th>
<th>Active ingredient</th>
<th>Dip time</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Carbamate</td>
<td>Carbaryl</td>
<td>2-5 mins</td>
<td></td>
</tr>
<tr>
<td>Diacylhydrazine</td>
<td>Tebufenozide</td>
<td>2-5 mins</td>
<td></td>
</tr>
<tr>
<td>Neonicotinoid</td>
<td>Imidacloprid (0.16 g per litre of dip/spray)</td>
<td>2-5 mins</td>
<td>Non-dormant material only</td>
</tr>
<tr>
<td>Neonicotinoid</td>
<td>Thiacloprid (0.16 g per litre of dip/spray)</td>
<td>2-5 mins</td>
<td>Non-dormant material only</td>
</tr>
<tr>
<td>Organophosphorous</td>
<td>Acephate (0.75 g per litre of dip/spray)</td>
<td>2-5 mins</td>
<td>Non-dormant material only</td>
</tr>
<tr>
<td>Organophosphorous</td>
<td>Chlorpyrifos (2.4 g per litre of dip/spray)</td>
<td>2-5 mins</td>
<td>Non-ionic surfactant required for dipping</td>
</tr>
<tr>
<td>Organophosphorous</td>
<td>Dimethoate</td>
<td>2-5 mins</td>
<td>Non-dormant material only</td>
</tr>
<tr>
<td>Organophosphorous</td>
<td>Pirimiphos-methyl (0.475 g per litre of dip/spray)</td>
<td>2-5 mins</td>
<td>Non-ionic surfactant required for dipping</td>
</tr>
<tr>
<td>Pyrethroid</td>
<td>Deltamethrin</td>
<td>15 mins</td>
<td></td>
</tr>
<tr>
<td>Pyrethroid</td>
<td>Fenvalerate</td>
<td>15 mins</td>
<td></td>
</tr>
<tr>
<td>Spinosyns</td>
<td>Spinosad</td>
<td>2-5 mins</td>
<td>Dip/spray at room temperature</td>
</tr>
</tbody>
</table>

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**Mites**

One of the following two treatments is required:

1. Methyl bromide (dormant material only): fumigation for 2 hours at atmospheric pressure at one of the combinations of rate (g/m$^3$) and temperature (°C) prescribed for insects above. OR

2. Chemical treatment: spray, or preferably immerse in a dip(s) with agitation, according to the following conditions. The plants must be sprayed/dipped using either Abamectin or two active ingredients belonging to different chemical groups chosen from the table below. For dipping, the treatment time is normally 2 minutes but must be increased to 5 minutes if bubbles remain present on the plant surface. Dip solutions must be used no more than twice or as per manufacturer's recommendations. All treatments must be carried out in accordance with manufacturer's recommendations using either the recommended label rate or the rates shown in the table below.

<table>
<thead>
<tr>
<th>Chemical group</th>
<th>Active ingredient</th>
<th>Dip time</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Avermectin</td>
<td>Abamectin (0.009 g per litre of dip/spray)</td>
<td>2-5 mins</td>
<td>Non-ionic surfactant required for dipping</td>
</tr>
<tr>
<td>Organochlorine</td>
<td>Dicofol</td>
<td>2-5 mins</td>
<td></td>
</tr>
<tr>
<td>Organophosphorous</td>
<td>Acephate (0.75 g per litre of dip/spray)</td>
<td>2-5 mins</td>
<td>Non-dormant material only</td>
</tr>
<tr>
<td></td>
<td>Chloryprifos (2.4 g per litre of dip/spray)</td>
<td>2-5 mins</td>
<td>Non-ionic surfactant required for dipping</td>
</tr>
<tr>
<td></td>
<td>Dimethoate</td>
<td>2-5 mins</td>
<td>Non-dormant material only</td>
</tr>
<tr>
<td></td>
<td>Pirimiphos-methyl (0.475 g per litre of dip/spray)</td>
<td>2-5 mins</td>
<td>Non-ionic surfactant required for dipping</td>
</tr>
</tbody>
</table>

If satisfied that the pre-shipment activities have been undertaken, the exporting country NPPO must confirm this by recording the treatments applied in the “Disinfestation and/or Disinfection Treatment” section of the phytosanitary certificate.

### 2.2.1.7 Pesticide treatments for dormant bulbs

These treatments are only required for dormant bulbs if specifically stated in the “schedule of special conditions” or section 2.4:

**Insects**

One of the following three treatments is required:

1. Methyl bromide fumigation: fumigation for 2 hours at atmospheric pressure at one of the following combinations of rate (g/m$^3$) and temperature (°C):

<table>
<thead>
<tr>
<th>Rate (g/m$^3$)</th>
<th>Temperature (°C)</th>
</tr>
</thead>
<tbody>
<tr>
<td>48</td>
<td>10 – 15</td>
</tr>
<tr>
<td>40</td>
<td>16 – 20</td>
</tr>
<tr>
<td>32</td>
<td>21 – 27</td>
</tr>
<tr>
<td>28</td>
<td>28 – 32</td>
</tr>
</tbody>
</table>

OR

2. Hot water treatment/chemical treatment: immersion in hot water at a constant temperature of 24°C for 2 hours, followed by immersion in hot water at a constant temperature of 45°C for 3 hours (period required at the stated temperatures excluding warm-up times). Immersion in chloryprifos dip (2.4 g active ingredient per litre of dip) containing a non-ionic surfactant for 2 minutes with agitation. The treatment time must be increased to 5 minutes if bubbles remain
present on the bulb surface. The dip solution must be used no more than twice or as per manufacturer's recommendations. The chlorpyrifos dip may be incorporated in the hot water treatment.

OR

(3) Chemical treatment: immersion in a dip(s) containing two active ingredients chosen from the table below, one belonging to the organophosphorous chemical group and the other from a different group, with agitation according to the prescribed conditions. The treatment time is normally 2 minutes but must be increased to 5 minutes if bubbles remain present on the bulb surface. The dip solution must be used no more than twice or as per manufacturer's recommendations.

<table>
<thead>
<tr>
<th>Chemical group</th>
<th>Active ingredient</th>
<th>Time</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Neonicotinoid</td>
<td>Thiocloprid/Imidacloprid (0.16 g per litre of dip)</td>
<td>2-5 mins</td>
<td>Non-ionic surfactant required</td>
</tr>
<tr>
<td>Organophosphorous</td>
<td>Diazinon (0.5 g per litre of dip)</td>
<td>2-5 mins</td>
<td>-</td>
</tr>
<tr>
<td>Organophosphorous</td>
<td>Pirimiphos-methyl (2.5-3.25 g per litre of dip)</td>
<td>2-5 mins</td>
<td>Non-ionic surfactant required</td>
</tr>
<tr>
<td>Phenylpyrazole</td>
<td>Fipronil (40 mg per litre of dip)</td>
<td>2-5 mins</td>
<td>Non-ionic surfactant required</td>
</tr>
</tbody>
</table>

Mites

One of the following three treatments is required:

(1) Methyl bromide fumigation: fumigation for 2 hours at atmospheric pressure at one of the combinations of rate (g/m³) and temperature (°C) prescribed for insects above.

OR

(2) Hot water treatment: immersion in hot water at a constant temperature of 24°C for 2 hours, followed by immersion in hot water at a constant temperature of 45°C for 3 hours (period required at the stated temperatures excluding warm-up times).

OR

(3) Chemical treatment: immersion in a dip(s) with agitation, according to the following conditions. The plants must be sprayed/dipped using either Abamectin or two active ingredients belonging to different chemical groups chosen from the table below. The treatment time is normally 2 minutes but must be increased to 5 minutes if bubbles remain present on the plant surface. Dip solutions must be used no more than twice or as per manufacturer's recommendations. All treatments must be carried out in accordance with manufacturer's recommendations using either the recommended label rate or the rates shown in the table below.

<table>
<thead>
<tr>
<th>Chemical group</th>
<th>Active ingredient</th>
<th>Dip time</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Avermectin</td>
<td>Abamectin (0.009 g per litre of dip/spray)</td>
<td>2-5 mins</td>
<td>Non-ionic surfactant required for dipping</td>
</tr>
<tr>
<td>Organochlorine</td>
<td>Dicofol</td>
<td>2-5 mins</td>
<td>-</td>
</tr>
<tr>
<td>Organophosphorous</td>
<td>Acephate (0.75 g per litre of dip/spray)</td>
<td>2-5 mins</td>
<td>Non-dormant material only</td>
</tr>
<tr>
<td>Organophosphorous</td>
<td>Chlorpyrifos (2.4 g per litre of dip/spray)</td>
<td>2-5 mins</td>
<td>Non-ionic surfactant required for dipping</td>
</tr>
<tr>
<td>Organophosphorous</td>
<td>Dimethoate</td>
<td>2-5 mins</td>
<td>Non-dormant material only</td>
</tr>
<tr>
<td>Organophosphorous</td>
<td>Pirimiphos-methyl (0.475 g per litre of dip/spray)</td>
<td>2-5 mins</td>
<td>Non-ionic surfactant required for dipping</td>
</tr>
</tbody>
</table>
**Nematodes**

Both of the following treatments are required:

1. Methyl bromide fumigation: fumigation for 2 hours at atmospheric pressure at one of the combinations of rate (g/m$^3$) and temperature (°C) prescribed for insects above;

OR Hot water treatment: immersion in hot water at a constant temperature of 24°C for 2 hours, followed by immersion in hot water at a constant temperature of 45°C for 4 hours (period required at the stated temperatures excluding warm-up times).

AND

2. Chemical treatment: immersion in fenamiphos (1 g active ingredient per litre of dip) for 1 hour.

**Fungi**

Both of the following treatments are required:

1. Chemical treatment: immersion in a dip containing one of the following active ingredients, with agitation according to the prescribed conditions. The dip solution must be used no more than twice or as per manufacturer's recommendations. All treatments must be carried out in accordance with manufacturer's recommendations using either the recommended label rate or the rates shown in the table below.

<table>
<thead>
<tr>
<th>Active ingredient</th>
<th>Dip time</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bromo-chloro-dimethylhydantoin (8.1-16 g per litre of dip)</td>
<td>5 mins</td>
<td></td>
</tr>
<tr>
<td>Formaldehyde (0.4%)</td>
<td>2 hours</td>
<td>Dip at room temperature</td>
</tr>
<tr>
<td>Peroxyacetic acid (80 ppm)</td>
<td>5 mins</td>
<td>Dip at room temperature</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Wetting agent required</td>
</tr>
<tr>
<td>Sodium hypochlorite (10%), pH 6.5-7</td>
<td>5 mins</td>
<td>Dip at room temperature</td>
</tr>
</tbody>
</table>

AND

2. Hot water treatment/chemical treatment: immersion in hot water at a constant temperature of 24°C for 2 hours, followed by immersion in hot water at a constant temperature of 45°C for 3 hours (period required at the stated temperatures excluding warm-up times). Immersion in thiabendazole dip (1-1.3 g active ingredient per litre of dip) containing a wetting agent for 15-30 minutes with agitation. The dip solution must be used no more than twice or as per manufacturer's recommendations. The thiabendazole dip may be incorporated in the hot water treatment;

OR Chemical treatment: immersion in a dip(s) containing two active ingredients belonging to different chemical groups chosen from the table below, with agitation according to the prescribed conditions. The dip solution must be used no more than twice or as per manufacturer's recommendations. All treatments must be carried out in accordance with manufacturer's recommendations using either the recommended label rate or the rates shown in the table below.

<table>
<thead>
<tr>
<th>Chemical group</th>
<th>Active ingredient</th>
<th>Dip time</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Benzimidazole</td>
<td>Thiabendazole (1-1.3 g per litre of dip)</td>
<td>15-30 mins</td>
<td>Dip at room temperature</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Wetting agent required</td>
</tr>
<tr>
<td>Benzimidazole</td>
<td>Thiophanate-methyl (0.75 g per litre of dip)</td>
<td>15-30 mins</td>
<td>Dip at 27-29.5°C</td>
</tr>
<tr>
<td>Dimethyldithiocarbamate</td>
<td>Thiram (11.2 g per litre of dip)</td>
<td>-</td>
<td>Dip at room temperature</td>
</tr>
<tr>
<td>Imidazole</td>
<td>Prochloraz (0.25 g per litre of dip)</td>
<td>15 mins</td>
<td>Dip at room temperature</td>
</tr>
<tr>
<td>Strobilurin</td>
<td>Azoxyostrobins (0.95 g per litre of dip)</td>
<td>15 mins</td>
<td>Dip at room temperature</td>
</tr>
</tbody>
</table>
If satisfied that the pre-shipment activities have been undertaken, the exporting country NPPO must confirm this by recording the treatments applied in the “Disinfestation and/or Disinfection Treatment” section of the phytosanitary certificate.

2.2.1.8 Measures for *Helicobasidium mompa*

**A. For nursery stock from the following countries:**

- Afghanistan  
- Armenia  
- Bangladesh  
- Bhutan  
- Brunei  
- Cambodia  
- Iran  
- Afghanistan  
- Armenia  
- Bangladesh  
- Bhutan  
- Brunei  
- Cambodia  
- Iran

For whole plants, cuttings and dormant bulbs:

(i) the phytosanitary certificate must have the following additional declaration:

"The nursery stock has been sourced from a “Pest free area”, free from *Helicobasidium mompa*".

**B. For nursery stock from the following countries:**

- Azerbaijan  
- China  
- Georgia  
- India  
- Indonesia  
- Japan  
- Kazakhstan  
- Kyrgyzstan  
- Malawi  
- Malaysia  
- Mongolia  
- North Korea

a) For dormant bulbs:

(i) the phytosanitary certificate must have the following additional declaration:

"The dormant bulbs have been sourced from a “Pest free area” or “Pest free place of production”, free from *Helicobasidium mompa*"

b) For whole plants and cuttings:

(i) the phytosanitary certificate must have the following additional declaration:

"The nursery stock has been sourced from a “Pest free area” or “Pest free place of production”, free from *Helicobasidium mompa*"

AND

(ii) the consignment must be treated for the fungus as follows, unless the nursery stock requires Level 3 PEQ as stated in the “schedule of special conditions”.

Both of the following treatments are required:

(1) Chemical treatment: spray, or preferably immerse in a dip(s) with agitation, using one of the following active ingredients according to the following conditions. For dipping, the treatment time is 5 minutes. Dip solutions must be used no more than twice or as per manufacturer's recommendations. All treatments must be carried out in accordance with manufacturer's recommendations using either the recommended label rate or the rates shown in the table below.

<table>
<thead>
<tr>
<th>Active ingredient</th>
<th>Dip time</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Biosecur</td>
<td>155</td>
<td>New Zealand Standard 02.06: Importation of Nursery Stock</td>
</tr>
</tbody>
</table>
Bromo-chloro-dimethylhydantoin (8.1-16 mg per litre of dip/spray) 5 mins

Peroxyacetic acid (80 ppm) 5 mins  Dip at room temperature
Wetting agent required

Sodium hypochlorite (10%), pH 6.5-7 5 mins Dip at room temperature

AND

(2) Hot water treatment/chemical treatment (dormant material only): immersion in hot water at a constant temperature of 24°C for 2 hours, followed by immersion in hot water at a constant temperature of 45°C for 3 hours (period required at the stated temperatures excluding warm-up times). Immersion in thiabendazole dip (1-1.3 g active ingredient per litre of dip) containing a wetting agent for 15-30 minutes with agitation. The dip solution must be used no more than twice or as per manufacturer's recommendations. The thiabendazole dip may be incorporated in the hot water treatment;

OR Chemical treatment: spray, or preferably immerse in a dip(s) with agitation, according to the following conditions. The plants must be sprayed/dipped using two active ingredients belonging to different chemical groups chosen from the table below. Dip solutions must be used no more than twice or as per manufacturer's recommendations. All treatments must be carried out in accordance with manufacturer's recommendations using either the recommended label rate or the rates shown in the table below.

<table>
<thead>
<tr>
<th>Chemical group</th>
<th>Active ingredient</th>
<th>Dip time</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Anilinopyrimidine</td>
<td>Pyrimethanil</td>
<td>15 mins</td>
<td>Dip at room temperature</td>
</tr>
<tr>
<td>Benzimidole</td>
<td>Carbendazim (1 g per litre of dip/spray)</td>
<td>20 mins</td>
<td></td>
</tr>
<tr>
<td>Benzimidole</td>
<td>Thiophanate-methyl</td>
<td>10-15 mins</td>
<td></td>
</tr>
<tr>
<td>Chloronitrile</td>
<td>Chlorothalonil</td>
<td>15 mins</td>
<td>Dip at room temperature</td>
</tr>
<tr>
<td>Dicarboximide</td>
<td>Iprodione (2 g per litre of dip/spray)</td>
<td>30 mins</td>
<td></td>
</tr>
<tr>
<td>Dimethyldithiocarbamate</td>
<td>Thiram (11.2 g per litre of dip)</td>
<td>-</td>
<td>Dip at room temperature</td>
</tr>
<tr>
<td>Phenylurea</td>
<td>Pencycuron</td>
<td>15 mins</td>
<td></td>
</tr>
<tr>
<td>Phosphonate</td>
<td>Fosetyl-aluminium</td>
<td>15 mins</td>
<td>Dip at room temperature</td>
</tr>
<tr>
<td>Strobilurin</td>
<td>Azoxyostrobin (0.95 g per litre of dip)</td>
<td>15 mins</td>
<td>Dip at room temperature</td>
</tr>
<tr>
<td>Triazole</td>
<td>Propiconazole (0.5 g per litre of dip)</td>
<td>5 mins</td>
<td></td>
</tr>
</tbody>
</table>

If satisfied that the pre-shipment activities have been undertaken, the exporting country NPPO must confirm this by recording the treatments applied in the “Disinfestation and/or Disinfection Treatment” section of the phytosanitary certificate.

2.2.1.9 Measures for Phymatotrichopsis omnivora

For whole plants (not cuttings, dormant bulbs or tissue culture) from Brazil, Mexico, the United States of America or Venezuela, the phytosanitary certificate must have the following additional declaration:
"The nursery stock has been sourced from a “Pest free area”, free from Phymatotrichopsis omnivora".

2.2.1.10 Post-Entry Quarantine (PEQ)
Following arrival in New Zealand all nursery stock, unless specified in section 2.2.2 or the schedules of special entry conditions, must undergo a period of post entry quarantine in order to check for the presence of regulated pests and/or diseases. Post-entry quarantine will be carried out in a transitional facility registered in accordance with Biosecurity New Zealand Standard PBC-NZ-TRA-PQCON: Specification for the Registration of a Plant Quarantine or Containment Facility, and Operator.

The quarantine period will be a minimum of 3 months, unless otherwise stated in the schedule of special entry conditions. The nursery stock must be actively growing throughout this period. The quarantine period may be extended if material is slow growing, pests and diseases are detected or treatments required. The MAF Inspector has full authority to determine when the plant material may receive biosecurity clearance.

2.2.2 ENTRY CONDITIONS FOR TISSUE CULTURE

2.2.2.1 Labelling

Cultures must be clearly identified with their scientific name (genus and species).

2.2.2.2 Cleanliness & Tissue Culture Media

Cultures imported in growing media must have been grown in the vessel in which they are imported. The container must be pest-proof, rigid, and either clear plastic or glass. The tissue culture media must not contain fungicides or antibiotics. Plants in tissue culture must be produced in a facility under conditions that prevent contamination with regulated pests.

2.2.2.3 Phytosanitary Certificate

Cultures must be accompanied by a phytosanitary certificate, certifying that the nursery stock has been inspected in the exporting country according to appropriate procedures and conforms with New Zealand's current entry conditions.

For plantlets recently removed from in-vitro tissue culture, the phytosanitary certificate must be endorsed that:

"These plantlets were removed from the original culture container(s) in which they were grown, not more than 48 hours before export, and have not been in contact with any other growing media".

2.2.2.4 Import permit

An import permit is not required for tissue culture unless the schedule of special conditions specifies that these cultures require post entry quarantine.
2.2.2.5 Inspection on arrival

Visual inspection of the tissue culture upon arrival in New Zealand will determine if the tissue culture shows any signs of contamination (e.g. cloudy agar, fungal spores or bacterial growth). If contamination is observed the importer will be given the option of reshipment or destruction of the consignment.

2.2.3 IMPORTATION OF POLLEN

A prior import permit must be obtained from the Permit Officer.

2.2.4 IMPORTATION OF NEW ORGANISMS

Proposals for the deliberate introduction of new organisms as defined by the Hazardous Substances and New Organisms Act 1996 should be referred to the Environmental Risk Management Authority (see section 1.5).

2.3 COMPLIANCE PROCEDURES

On arrival in New Zealand all documentation associated with the importation will be inspected by an inspector to ensure compliance. The nursery stock will be inspected using a randomly selected minimum 600 unit sample, to ensure that it complies with the entry conditions.

If organisms are detected that cannot be identified, they will be treated as regulated organisms. If the number of units infested with quarantine pests exceeds the acceptance number, the nursery stock will be treated, reshipped or destroyed as directed by the inspector, at the expense of the importer.

2.3.1 VALIDATION OF OVERSEAS MEASURES

For all imported nursery stock, MAF reserves the right to validate all measures that are undertaken overseas. This includes measures undertaken by national plant protection organisations, MAF-accredited facilities offshore and within New Zealand. Audits will be conducted on a regular basis and at the expense of the importer.

2.3.2 TREATMENT AND TESTING OF THE CONSIGNMENT

All pesticide treatments must be carried out in accordance with manufacturer's recommendations, including labeling of the treated plant commodity with the name of the active ingredient used and any handling requirements.

Upon arrival and following inspection at the border, if any required treatment(s) or testing of the consignment has not been completed within the prescribed period, these measures may be completed in New Zealand where such services are available, and by prior arrangement with MAF. All testing and treatment in New Zealand must be
completed in MAF-accredited facilities, accredited to MAF standards 155.04.03: Specification for the Registration of a Plant Pest Diagnostic Laboratory, and Operator and BMG-STD-TREAT: Approval of Suppliers Providing Treatment of Imported Risk Goods and Forestry/Plant Related Material for Export, respectively.

2.4 NEW ZEALAND NURSERY STOCK RETURNING FROM OVERSEAS

All returning product of New Zealand origin will be regarded as offshore nursery stock and must meet the requirements of the import health standard or be reshipped or destroyed, except under the following circumstances:

(i) Nursery stock “unopened” offshore
Product in its original pest-proof container with the original seals intact is permitted entry subject to a product reconciliation check on arrival to verify that it is New Zealand produce.

(ii) Nursery stock “opened” offshore
Nursery stock inspected offshore, and rejected for any reason, is permitted entry subject to the following:

(a) verification that the nursery stock was either returned to its original pest-proof container and resealed immediately after inspection or stored in pest-proof facilities prior to re-export; and
(b) the consignment was reshipped back to New Zealand by the first available means; and
(c) inspection, clearance and reconciliation of the consignment on arrival in New Zealand as per section 2 of this standard; and
(d) treatment with a generic insecticide and miticide as per sections 2.2.1.6 (whole plants and cuttings) or 2.2.1.7 (dormant bulbs) of this standard.
3. SCHEDULE OF SPECIAL ENTRY CONDITIONS

3.1 SPECIAL ENTRY CONDITIONS

Plant genera listed in these schedules have entry requirements that differ in some way from the Basic Conditions (Section 2.2.1.). Differences may involve:

- special isolation requirements
- special treatment requirements
- minimum quarantine period
- a requirement for Level 3 Quarantine
- special phytosanitary certificate additional declarations

All consignments must meet the Basic Conditions in Section 2.2.1 and 2.2.2 unless a variation to these conditions is specified in the schedule.

3.2 ACCREDITATION OF OFFSHORE PLANT QUARANTINE FACILITIES

Nursery stock normally subject to post-entry quarantine may be imported from MAF-accredited (registered) facilities overseas under predetermined conditions, with a reduced PEQ requirement following arrival in New Zealand. Overseas facilities must be accredited by MAF according to MAF Standard PIT-OS-TRA-ACPQF: Accreditation of Offshore Plant Quarantine Facilities and Operators. A list of such MAF-accredited facilities is available on MAF’s website:


3.3 AMENDMENTS TO THE PLANTS BIOSECURITY INDEX

The Plants Biosecurity Index will be further updated with plant species assessed by ERMA as being either “not new organisms” or approved for entry into New Zealand.

The Plants Biosecurity Index will be continuously updated on MAF’s website:

[http://www1.maf.govt.nz/cgi-bin/bioindex/bioindex.pl](http://www1.maf.govt.nz/cgi-bin/bioindex/bioindex.pl)

The information provided within the web site copy of the Plants Biosecurity Index is only intended to be general information to the public. It is not intended to take the place of, or to represent, the written law of New Zealand or other official guidelines or requirements. Web site users are advised to contact Biosecurity New Zealand to confirm import status.
**Abies**

**Note:** The entry conditions in this schedule only apply to species in the Plants Biosecurity Index listed under Import Specifications for Nursery Stock as “see 155.02.06 under *Abies*”, and are additional to those specified in sections 1, 2 and 3 of the import health standard.

**GENERAL CONDITIONS:**

**Countries:** All

**Quarantine Pests:** *Bursaphelenchus* spp.; *Lophodermium* spp.; *Phytophthora ramorum*, Uredinales

**Entry Conditions:** Basic; with variations and additional conditions as specified below:

A. **For Whole Plants:**
   PEQ: Level 3
   Minimum Period: 6 months

B. **For Tissue Cultures:**
   As for **Standard Entry Conditions for Tissue Cultures** - see Section 2.2.2, but subject to examination at a MAF-registered laboratory at the importers expense, prior to release to the importer.
Acacia

Note: The entry conditions in this schedule only apply to species in the Plants Biosecurity Index listed under Import Specifications for Nursery Stock as “see 155.02.06 under Acacia”, and are additional to those specified in sections 1, 2 and 3 of the import health standard.

GENERAL CONDITIONS:

Countries: All

Quarantine Pests: Xylella fastidiosa

Entry Conditions: Basic; with variations and additional conditions as specified below:

A. For Cuttings and Whole Plants from All Countries except Argentina, Belize, the Caribbean Islands, Costa Rica, El Salvador, Guatemala, Honduras, Mexico, Nicaragua, Panama, Peru, United States of America, Venezuela and Yugoslavia:

PEQ: Level 2
Minimum Period: 3 months
Additional Declaration:
"The plants have been sourced from a “Pest free area”, free from Xylella fastidiosa".

B. For Plants in Tissue Culture from All Countries:
As for Standard Entry Conditions for Tissue Cultures - see Section 2.2.2.
Acca sellowiana

Note: The entry conditions in this schedule only apply to species in the Plants Biosecurity Index listed under Import Specifications for Nursery Stock as “see 155.02.06 under Acca sellowiana”, and are additional to those specified in sections 1, 2 and 3 of the import health standard.

GENERAL CONDITIONS:

Countries: Australia, Austria, Belgium, Denmark, Finland, France, Germany, Greece, Hungary, Ireland, Israel, Italy, Luxembourg, Norway, The Netherlands, Portugal, Spain, Sweden, Switzerland, United Kingdom, USA.

Quarantine Pests: Puccinia psidii

Entry Conditions: Basic; with variations and additional conditions as specified below:

A. For Whole Plants:
PEQ: Level 2
Minimum Period: 6 months
Additional Declaration:
"Puccinia psidii is not known to occur in ______ (the country or state of origin) ______".

B. For Tissue Cultures:
As for Standard Entry Conditions for Tissue Cultures - see Section 2.2.2.
Note: The entry conditions in this schedule only apply to species in the Plants Biosecurity Index listed under Import Specifications for Nursery Stock as “see 155.02.06 under Acer”, and are additional to those specified in sections 1, 2 and 3 of the import health standard.

**GENERAL CONDITIONS:**

**Countries:** All

**Quarantine Pests:** *Cryphonectria parasitica; Phytophthora ramorum; Xylella fastidiosa*

**Entry Conditions:** Basic; with variations and additional conditions as specified below:

**A. For Cuttings (dormant) and Whole Plants (dormant) from:**

a) **Australia, Canada, Israel and South Africa:**

- **PEQ:** Level 2
- **Minimum Period:** 3 months
- **Additional Declaration(s):**
  1. "*Cryphonectria parasitica* is not known to occur in _____ (the country or state where the plants/cuttings were produced) _____".
  2. "The plants have been sourced from a “Pest free area”, free from *Phytophthora ramorum* and *Xylella fastidiosa*”.

  OR

- **PEQ:** Level 3
- **Minimum Period:** 6 months

b) **All Countries except Argentina, Australia, Belize, Canada, the Caribbean Islands, Costa Rica, El Salvador, Guatemala, Honduras, Israel, Mexico, Nicaragua, Panama, Peru, South Africa, United States of America, Venezuela and Yugoslavia:**

- **PEQ:** Level 3
- **Minimum Period:** 6 months

**C. For Tissue Cultures from All Countries:**

As for **Standard Entry Conditions for Tissue Cultures** - see Section 2.2.2, but subject to examination at a MAF-registered laboratory at the importers expense, prior to release to the importer.
**Acrocomia**

**Note:** The entry conditions in this schedule only apply to species in the Plants Biosecurity Index listed under Import Specifications for Nursery Stock as “see 155.02.06 under *Acrocomia*”, and are additional to those specified in sections 1, 2 and 3 of the import health standard.

**GENERAL CONDITIONS:**

**Countries:** Australia, Hawaii, mainland USA

**Quarantine Pests:** Lethal yellowing; cadang-cadang

**Entry Conditions:** Basic; with variations and additional conditions as specified below:

**PEQ:** Level 2

**Minimum Period:** 3 months

**Height Limit:** Plants must not exceed 1.5m in height

**Additional Declaration:**

"Cadang cadang and lethal yellowing are not known to occur in _____ (the country or state where the plants were grown) ______.".
Note: The entry conditions in this schedule only apply to species in the Plants Biosecurity Index listed under Import Specifications for Nursery Stock as “see 155.02.06 under Actinidia”, and are additional to those specified in sections 1, 2 and 3 of the import health standard.

1. Type of Actinidia nursery stock approved for entry into New Zealand
Cuttings (dormant); Plants in tissue culture

2. Pests of Actinidia
Refer to the pest list.

3. Entry conditions for:
3.1 Actinidia cuttings and tissue culture from any country

(i) Documentation
Phytosanitary certificate: a completed phytosanitary certificate issued by the NPPO of the exporting country must accompany all Actinidia nursery stock exported to New Zealand.
Import permit: an import permit is required.

(ii) Phytosanitary requirements
Before a phytosanitary certificate is issued, the NPPO of the exporting country must be satisfied that the following activities required by MAF have been undertaken.

The Actinidia cuttings / plants in tissue culture [choose ONE option] have been:
- inspected in accordance with appropriate official procedures and found to be free of any visually detectable regulated pests.
AND
- treated for regulated insects and mites as described in section 2.2.1.6 of the basic conditions within 7 days prior to shipment [cuttings only].
AND
- held in a manner to ensure that infestation/reinfestation does not occur following certification.

(iii) Additional declarations to the phytosanitary certificate
If satisfied that the pre-shipment activities have been undertaken, the exporting country NPPO must confirm this by recording the treatments applied in the “Disinfestation and/or Disinfection Treatment” section [cuttings only]. No additional declarations are required.

(iv) Special tissue culture media requirements
The tissue culture media must not contain charcoal.

(v) Post-entry quarantine
PEQ: All Actinidia nursery stock must be imported under permit into post-entry quarantine in a level 3 quarantine facility accredited to MAF standard PBC-NZ-TRA-PQCON Specification for the registration of a plant quarantine or containment facility, and operator.

Quarantine Period and Inspection, Testing and Treatment Requirements: The nursery stock will be grown for a minimum period of 6 months in post-entry quarantine and will be inspected, treated and/or tested for regulated pests as specified in the “Inspection, Testing and Treatment Requirements for Actinidia”, at the expense of the importer. Six months is an
indicative minimum quarantine period and this period may be extended if material is slow growing, pests are detected, or treatments/testing are required.
# Pest List for *Actinidia*

## REGULATED PESTS (actionable)

<table>
<thead>
<tr>
<th>Insect</th>
<th>Insecta</th>
<th>Coleoptera</th>
<th>Curculionidae</th>
<th>Otiorhynchus salicicola</th>
<th>weevil</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Hemiptera</td>
<td>Miridae</td>
<td>Adelphocoris lineolatus</td>
<td>alfalfa plant bug</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Homoptera</td>
<td>Cicadellidae</td>
<td>Empoasca vitis</td>
<td>grape leafhopper</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Coccidae</td>
<td>Ceroplastes rusci</td>
<td>fig wax scale</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Diaspididae</td>
<td>Pseudaulacaspis pentagona</td>
<td>white peach scale</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Lepidoptera</td>
<td>Tortricidae</td>
<td>Lobesia botrana</td>
<td>grape berry moth</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Proeulia auraria</td>
<td>grapevine leafroller</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Proeulia chrysopteris</td>
<td>grapevine leaf-rolling tortricid</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Thysanoptera</td>
<td>Thripidae</td>
<td>Scirtothrips dorsalis</td>
<td>chilli thrips</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mite</td>
<td>Arachnida</td>
<td>Acarina</td>
<td>Tenuipalpidae</td>
<td>Brevipalpus chilensis</td>
<td>false spider mite</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fungus</td>
<td>Ascomycota</td>
<td>Hypocreales</td>
<td>Hypocreaceae</td>
<td>Calonectria ilicola (anamorph Cylindrocladium parasiticum)</td>
<td>root and stem rot</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>mitospor fungi (Coelomycetes)</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Sphaeropsidales</td>
<td>Sphaerioidaceae</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Phylosticta actinidiae</td>
<td>Brown leaf spot</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Basidiomycota: Basidiomycetes</td>
<td>Agaricales</td>
<td>Tricholomataceae</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Armillaria mellea (anamorph Rhizomorpha subcorticalis)</td>
<td>armillaria root rot</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Bacterium</td>
<td>Pseudomonadaceae</td>
<td>Pseudomonas syringae pv. actinidiae</td>
<td>bacterial canker</td>
</tr>
<tr>
<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Virus</td>
<td></td>
<td></td>
<td></td>
<td>Apple stem grooving virus [Actinidia infecting strain]</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Disease of unknown aetiology</td>
<td></td>
<td>Chlorotic disease of kiwifruit</td>
<td>-</td>
</tr>
</tbody>
</table>
NON-REGULATED PESTS (non-actionable)

<table>
<thead>
<tr>
<th>Insect</th>
<th>Insecta</th>
<th>Coleoptera</th>
</tr>
</thead>
<tbody>
<tr>
<td>Curculionidae</td>
<td></td>
<td>Asynonychus cervinus</td>
</tr>
<tr>
<td>Scarabaeidae</td>
<td></td>
<td>Costelytra zealandica</td>
</tr>
<tr>
<td>Scolytidae</td>
<td></td>
<td>Hylastes ater</td>
</tr>
<tr>
<td>Hemiptera</td>
<td></td>
<td>Calocoris norvegicus</td>
</tr>
<tr>
<td>Miridae</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hemiptera</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Aleyrodidae</td>
<td></td>
<td>Trialeurodes vaporariorum</td>
</tr>
<tr>
<td>Coccidae</td>
<td></td>
<td>Ceroplastes sinensis</td>
</tr>
<tr>
<td>Saissetia oleae</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Diaspididae</td>
<td></td>
<td>Aonidiella auranti</td>
</tr>
<tr>
<td>Aspidiotus neri</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Diaspidiotus perniciosus</td>
<td></td>
<td>San Jose scale</td>
</tr>
<tr>
<td>Eupulvinaria hydrangeae</td>
<td></td>
<td>cottony hydrangea scale</td>
</tr>
<tr>
<td>Hemiberlesia lataniae</td>
<td></td>
<td>latania scale</td>
</tr>
<tr>
<td>Hemiberlesia rapax</td>
<td></td>
<td>greedy scale</td>
</tr>
<tr>
<td>Rhaniidae</td>
<td></td>
<td>Scyllypopa australis</td>
</tr>
<tr>
<td>Lepidoptera</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Oecophoridae</td>
<td></td>
<td>Stathmopoda skelloni</td>
</tr>
<tr>
<td>Tortricidae</td>
<td></td>
<td>Cnephasia jactatana</td>
</tr>
<tr>
<td>Ctenopseustis obliquana</td>
<td></td>
<td>brownheaded leafroller</td>
</tr>
<tr>
<td>Epiphyas postvittana</td>
<td></td>
<td>light brown apple moth</td>
</tr>
<tr>
<td>Planotortrix excessana</td>
<td></td>
<td>greenheaded leafroller</td>
</tr>
<tr>
<td>Planotortrix notophaea</td>
<td></td>
<td>blacklegged leafroller</td>
</tr>
<tr>
<td>Thysanoptera</td>
<td></td>
<td>Heliotrips haemorrhoidalis</td>
</tr>
<tr>
<td>Thripidae</td>
<td></td>
<td>Thrips imaginis</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Thrips obscuratus</td>
</tr>
<tr>
<td>Mite</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Arachnida</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Acarina</td>
<td></td>
<td>Brevipalpus obovatus</td>
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<td>Tenuiupalpidae</td>
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<tr>
<td>Tetranychidae</td>
<td></td>
<td>Eotetranynchus sexmaculatus</td>
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<tr>
<td></td>
<td></td>
<td>Tetranychus urticae</td>
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<tr>
<td>Tydeidae</td>
<td></td>
<td>Orthotydeus caudatus</td>
</tr>
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</table>

Fuller's rose weevil
grass grub
black pine bark beetle
potato mirid
greenhouse whitefly
Chinese wax scale
brown soft scale
black scale
California red scale
oleander scale
San Jose scale
cottony hydrangea scale
latania scale
greedy scale
passionvine hopper
bud moth
black lyre leafroller
brownheaded leafroller
light brown apple moth
greenheaded leafroller
blacklegged leafroller
greenhouse thrips
plague thrips
New Zealand flower thrips
privet mite
sixspotted mite
twospotted spider mite
-
**Fungi**

**Ascomycota**

**Diaporthales**

- *Diaportha actinidiae*  
  phomopsis canker
- *Diaportha perniciosa* (anamorph *Phomopsis mali*)  
  canker

**Diatrypaceae**

- *Eutypa lata*  
  eutypa dieback

**Dothideales**

- *Botryosphaeria dothidea* (anamorph *Fusicoccum aesculi*)  
  canker
- *Botryosphaeria parva* (anamorph *Fusicoccum parvum*)  
  canker
- *Botryosphaeria stevensii* (anamorph *Diplodia mutila*)  
  botryosphaeria canker

**Hypocreales**

- *Calonectria kyotensis* (anamorph *Cylindrocladium scoparium*)  
  root and stem rot
- *Gibberella acuminata* (anamorph *Fusarium acuminatum*)  
  fusarium storage rot
- *Nectria haematococca* (anamorph *Fusarium solani*)  
  fusarium fruit rot
- *Nectria radicicola* var. *macroconidialis*  
  cylindrocarpon rot

**Leotiales**

- *Botryotinia fuckeliana* (anamorph *Botrytis cinerea*)  
  grey mould
- *Monilinia fructicola*  
  American brown rot
- *Sclerotinia sclerotiorum*  
  cotty rot

**Phyllachorales**

- *Glomerella cingulata* (anamorph *Colletotrichum gloeosporioides*)  
  anthracnose

**Basidiomycota: Basidiomycetes**

**Agaricales**

- *Armillaria novae-zealandiae*  
  armillaria

**Ceratobasidiales**

- *Thanatephorus cucumeris* (anamorph *Rhizoctonia solani*)  
  rhizoctonia rot

**Poriales**

- *Pycnoporus coccineus*  
  branch canker

**Stereales**

- *Athelia rolfsii* (anamorph *Sclerotium rolfsii*)  
  Rolf's disease

**Oomycota**

**Pythiales**

- *Phytophthora cactorum*  
  phytophthora crown and root rot
- *Phytophthora cinnamomi*  
  phytophthora crown and root rot
- *Phytophthora citricola*  
  brown rot of fruit
- *Phytophthora cryptogea*  
  pink rot
- *Phytophthora lateralis*  
  brown rot
- *Phytophthora megasperma*  
  pink rot
- *Phytophthora nicotianae* var. *nicotianae*  
  root and stem rot

**mitosporic fungi (Coelomycetes)**

**Sphaeropsidales**

- *Fusicoccum luteum*  
  bunch rot
- *Macrophomina phaseolina*  
  ashy stem blight
- *Phoma exigua*  
  phoma rot
- *Phoma glomerata*  
  phoma fruit and leaf spot
- *Phoma huancayensis*  
  phoma rot
<table>
<thead>
<tr>
<th>Organism</th>
<th>Disease</th>
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</thead>
<tbody>
<tr>
<td><em>Phoma macrostoma</em></td>
<td>fruit and leaf spot</td>
</tr>
<tr>
<td><em>Phoma nigricans</em></td>
<td>leaf spot</td>
</tr>
<tr>
<td><em>Phoma plurivora</em></td>
<td>bunch rot</td>
</tr>
<tr>
<td><strong>unknown Coelomycetes</strong></td>
<td></td>
</tr>
<tr>
<td><strong>mitosporic fungi (Hyphomycetes)</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Hyphomycetales</strong></td>
<td></td>
</tr>
<tr>
<td>Dematiaceae</td>
<td></td>
</tr>
<tr>
<td><em>Alternaria alternata</em></td>
<td>black stalk rot</td>
</tr>
<tr>
<td><em>Cladosporium oxysporum</em></td>
<td>cladosporium leaf spot</td>
</tr>
<tr>
<td><em>Pseudocercospora handelii</em></td>
<td>cercospora leaf spot</td>
</tr>
<tr>
<td><em>Thielaviopsis basicola</em></td>
<td>black root rot</td>
</tr>
<tr>
<td>Moniliaceae</td>
<td></td>
</tr>
<tr>
<td><em>Acremonium alternatum</em></td>
<td></td>
</tr>
<tr>
<td><em>Verticillium albo-atrum</em></td>
<td>-</td>
</tr>
<tr>
<td><strong>unknown Hyphomycetes</strong></td>
<td></td>
</tr>
<tr>
<td><strong>unknown Hyphomycetes</strong></td>
<td>verticillium wilt</td>
</tr>
<tr>
<td><strong>unknown Hyphomycetes</strong></td>
<td></td>
</tr>
<tr>
<td><em>Aureobasidium pullulans</em></td>
<td>seed rot</td>
</tr>
<tr>
<td><strong>Bacterium</strong></td>
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</tr>
<tr>
<td>Pseudomonadaceae</td>
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<tr>
<td><em>Pseudomonas marginalis</em></td>
<td>soft rot</td>
</tr>
<tr>
<td><em>Pseudomonas viridiflava</em></td>
<td>leaf blight</td>
</tr>
<tr>
<td>Rhizobiaceae</td>
<td></td>
</tr>
<tr>
<td><em>Agrobacterium tumefaciens</em></td>
<td>crown gall</td>
</tr>
</tbody>
</table>

Biosecurity New Zealand Standard 155.02.06: Importation of Nursery Stock 1 March 2005
## Inspection, Testing and Treatment Requirements for *Actinidia*

<table>
<thead>
<tr>
<th>ORGANISM TYPES</th>
<th>NZ MAF ACCEPTABLE METHODS</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Insects</strong></td>
<td>Visual inspection AND approved insecticide treatments (Refer to section 2.2.1.6 of the basic conditions) [cuttings only]</td>
</tr>
<tr>
<td><strong>Mite</strong></td>
<td>Visual inspection AND approved miticide treatments (Refer to section 2.2.1.6 of the basic conditions) [cuttings only] or binocular microscope inspection in PEQ [plants in tissue culture only]</td>
</tr>
<tr>
<td><strong>Fungi</strong></td>
<td></td>
</tr>
<tr>
<td><em>Calonectria ilicicola</em></td>
<td>Growing season inspection in PEQ for disease symptom expression.</td>
</tr>
<tr>
<td><em>Phyllosticta actinidia</em></td>
<td>Growing season inspection in PEQ for disease symptom expression.</td>
</tr>
<tr>
<td><strong>Bacterium</strong></td>
<td></td>
</tr>
<tr>
<td><em>Pseudomonas syringae pv. actinidiae</em></td>
<td>PCR using the OCTF/OCTR primers (Sawada et al., 1997) or PAV 1/P 22 primers (Scortichini et al., 2002)</td>
</tr>
<tr>
<td><strong>Virus</strong></td>
<td></td>
</tr>
<tr>
<td><em>Apple stem grooving virus [Actinidia infecting strain]</em></td>
<td>ELISA or PCR (Clover et al., 2003), AND herbaceous indicators Cq, Nb, Ng, No and Pv AND TEM.</td>
</tr>
<tr>
<td><strong>Disease of unknown aetiology</strong></td>
<td>Growing season inspection in PEQ for disease symptom expression.</td>
</tr>
</tbody>
</table>

### Notes:
1. The unit for testing is an individual plantlet or cutting. Each single plantlet and cutting must be labelled individually and tested separately.
2. Transmission electron microscopy (TEM) – each plant must be observed under the TEM for virus particles.
3. Indicator hosts: *Chenopodium quinoa* (Cq), and *Nicotiana benthamiana* (Nb), *N. occidentalis* cv. 37B (No), *N. glutinosa* (Ng) and *Phaseolus vulgaris* cv. Prince (Pv). At least two plants of each indicator species must be used in mechanical inoculation tests.
4. Indicator plants must be grown under appropriate temperatures and must be shaded for 24 hrs prior to inoculation. Maintain post-inoculated indicator species under appropriate glasshouse conditions for at least 4 weeks. Inspect inoculated indicator plants at least twice per week for symptoms of virus infection.
5. Enzyme linked immunosorbent assay (ELISA); Polymerase chain reaction (PCR).
6. Testing must be carried out on *Actinidia* plants while they are in active growth. For bioassay and ELISA, plants shall be sampled from at least two positions including a young, fully expanded leaf at the top of the stem and an older leaf from a midway position.
7. PCR and ELISA must be validated using positive controls/reference material prior to use in quarantine testing.
8. Positive and negative controls must be used in ELISA tests.
9. Positive and negative controls (including a blank water control) must be used in PCR. Ideally positive internal controls and a negative plant control should be used. Internal controls in PCR tests are important to avoid the risk of false negatives.

10. Inspect *Actinidia* plants for signs of pest and disease at least twice per week during periods of active growth and once per week during dormancy.

11. With prior notification, MAF will accept other internationally recognised testing methods.

References


**Aesculus**

**Note:** The entry conditions in this schedule only apply to species in the Plants Biosecurity Index listed under Import Specifications for Nursery Stock as “see 155.02.06 under *Aesculus*”, and are additional to those specified in sections 1, 2 and 3 of the import health standard.

**GENERAL CONDITIONS:**

**Countries:** All

**Quarantine Pests:** *Phytophthora ramorum; Xylella fastidiosa*

**Entry Conditions:** Basic; with variations and additional conditions as specified below:

**A. For Cuttings and Whole Plants from Australia, Canada, Israel and South Africa**
(These commodities may only be imported from these countries):

**PEQ:** Level 2

**Minimum Period:** 3 months

**Additional Declaration:**
"The plants have been sourced from a “Pest free area”, free from *Phytophthora ramorum* and *Xylella fastidiosa*".

**B. For Plants in Tissue Culture from All Countries:**
As for **Standard Entry Conditions for Tissue Cultures** - see Section 2.2.2.
Allium

Note: The entry conditions in this schedule only apply to species in the Plants Biosecurity Index listed under Import Specifications for Nursery Stock as “see 155.02.06 under Allium”, and are additional to those specified in sections 1, 2 and 3 of the import health standard.

1. Type of Allium nursery stock approved for entry into New Zealand
   Dormant bulbs
   Plants in tissue culture

2. Pests of Allium
   Refer to the pest list.

3. Entry conditions for:
   3.1 Allium dormant bulbs from any country
      (i) Documentation
      Phytosanitary certificate: a completed phytosanitary certificate, issued by the national plant protection organisation (NPPO) of the exporting country, is required.
      Import permit: an import permit is required.
      (ii) Phytosanitary requirements
      Before a phytosanitary certificate is issued, the exporting country NPPO must be satisfied that the following activities required by the New Zealand Ministry of Agriculture and Forestry (MAF) have been undertaken.
      The Allium dormant bulbs have been:
      - inspected in accordance with appropriate official procedures and found to be free of any visually detectable regulated pests.
      AND
      - sourced from a “Pest free area”, “Pest free place of production” or “Pest free production site”, free from regulated nematodes and fungi OR treated for regulated nematodes and fungi as described in section 2.2.1.7 of the basic conditions within 7 days prior to freezing, cold-storage or shipment.
      AND
      - sourced from a “Pest free area”, “Pest free place of production” or “Pest free production site”, free from regulated bacteria, phytoplasmas and viruses.
      AND
      - treated for regulated insects and mites as described in section 2.2.1.7 of the basic conditions within 7 days prior to freezing, cold-storage or shipment.
      AND
      - held in a manner to ensure that infestation/reinfestation does not occur following certification.
      (iii) Additional declarations to the phytosanitary certificate
      If satisfied that the pre-shipment activities have been undertaken, the exporting country NPPO must confirm this by recording the treatments applied in the “Disinfestation and/or Disinfection Treatment” section, and by providing the following additional declaration to the phytosanitary certificate:
"The *Allium* dormant bulbs in this consignment have been:
- sourced from a “Pest free area”, “Pest free place of production” or “Pest free production site”, free from regulated nematodes and fungi [if applicable].

AND
- sourced from a “Pest free area”, “Pest free place of production” or “Pest free production site”, free from regulated bacteria, phytoplasmas and viruses.”

(iv) *Post-entry quarantine*

**PEQ:** Level 2

**Quarantine Period:** This is the time required to complete inspections and/or testing to detect regulated pests. Six months is an indicative minimum quarantine period. The quarantine period may be extended if material is slow growing, pests are detected, or treatments/testing are required.

3.2 *Allium* plants in tissue culture from any country

(i) **Documentation**

**Phytosanitary certificate:** a completed phytosanitary certificate, issued by the national plant protection organisation (NPPO) of the exporting country, is required.

**Import permit:** no import permit is required.

(ii) **Special tissue culture media requirements**

The tissue culture media must not contain charcoal.

(iii) **Phytosanitary requirements**

Before a phytosanitary certificate is issued, the exporting country NPPO must be satisfied that the following activities required by the New Zealand Ministry of Agriculture and Forestry (MAF) have been undertaken.

The *Allium* plants in tissue culture have been:
- inspected in accordance with appropriate official procedures and found to be free of any visually detectable regulated pests.

AND
- derived from parent stock inspected in accordance with appropriate official procedures and found to be free of any visually detectable regulated pests.

AND
- derived from parent stock tested using molecular/serological methods [choose ONE option] and found free of Aster yellows phytoplasma, *Impatiens necrotic spot virus*, *Iris yellow spot virus*, *Tobacco rattle virus* and *Tomato black ring virus*.

(iv) **Additional declarations to the phytosanitary certificate**

If satisfied that the pre-shipment activities have been undertaken, the exporting country NPPO must confirm this by providing the following additional declaration to the phytosanitary certificate:

"The *Allium* plants in tissue culture have been derived from parent stock:
- inspected in accordance with appropriate official procedures and found to be free of any visually detectable regulated pests

AND
- tested using molecular/serological methods [choose ONE option] and found free of Aster yellows phytoplasma, *Impatiens necrotic spot virus*, *Iris yellow spot virus*, *Tobacco rattle virus* and *Tomato black ring virus*."

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Biosecurity New Zealand Standard 155.02.06: Importation of Nursery Stock 1 March 2005
(iv) Post-entry quarantine

Post-entry quarantine is not required provided that the above measures have been completed overseas. Alternatively the inspection and testing may be completed in post-entry quarantine upon arrival in New Zealand according to the following conditions:

**Phytosanitary certificate**: a completed phytosanitary certificate, issued by the national plant protection organisation (NPPO) of the exporting country, is required.

**Import permit**: an import permit is required.

**PEQ**: Level 3

**Quarantine Period**: This is the time required to complete inspections and/or testing to detect regulated pests. Six months is an indicative minimum quarantine period. The quarantine period may be extended if material is slow growing, pests are detected, or treatments/testing are required.
Pest List for *Allium*

REGULATED PESTS (actionable)

<table>
<thead>
<tr>
<th>Insect</th>
<th>Family</th>
<th>Species</th>
<th>Action</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Insecta</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Coleoptera</td>
<td>Curculionidae</td>
<td><em>Brachycerus muricatus</em></td>
<td>weevil</td>
</tr>
<tr>
<td></td>
<td></td>
<td><em>Brachycerus undatus</em></td>
<td>weevil</td>
</tr>
<tr>
<td></td>
<td></td>
<td><em>Ceutorhynchus jakovlevi</em></td>
<td>onion weevil</td>
</tr>
<tr>
<td>Nitidulidae</td>
<td></td>
<td><em>Carpophillus obsoletus</em></td>
<td>dried fruit beetle</td>
</tr>
<tr>
<td></td>
<td>Diptera</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Anthomyiidae</td>
<td><em>Delia antiqua</em></td>
<td>onion maggot</td>
</tr>
<tr>
<td></td>
<td></td>
<td><em>Delia florilega</em></td>
<td>onion fly</td>
</tr>
<tr>
<td></td>
<td>Heleomyzidae</td>
<td><em>Suillia lurida</em></td>
<td>garlic fly</td>
</tr>
<tr>
<td></td>
<td></td>
<td><em>Suillia univittata</em></td>
<td></td>
</tr>
<tr>
<td>Syrphidae</td>
<td></td>
<td><em>Eumerus amoenus</em></td>
<td>onion bulb fly</td>
</tr>
<tr>
<td>Lepidoptera</td>
<td></td>
<td><em>Dyspesa ulula</em></td>
<td>garlic moth</td>
</tr>
<tr>
<td>Cossidae</td>
<td>Yponomeutidae</td>
<td><em>Acrolepia alliella</em></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td><em>Acrolepia sapporensis</em></td>
<td>allium leafminer</td>
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<td></td>
<td><em>Acrolepiopsis assectella</em></td>
<td>leek moth</td>
</tr>
<tr>
<td></td>
<td>Thysanoptera</td>
<td><em>Thrips tabaci</em> [vector]</td>
<td>onion thrips</td>
</tr>
<tr>
<td>Mite</td>
<td>Arachnida</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Acarina</td>
<td></td>
<td></td>
</tr>
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<td></td>
<td>Acaridae</td>
<td><em>Rhizoglyphus setosus</em></td>
<td>bulb mite</td>
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<tr>
<td></td>
<td>Eriophyidae</td>
<td><em>Aceria tulipae</em> [vector]</td>
<td>wheat curl mite</td>
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<tr>
<td>Nematode</td>
<td>Adenophorea</td>
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<td></td>
<td>Dorylaimida</td>
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<td></td>
<td>Longidoridae</td>
<td><em>Paratrichodorus maximus</em></td>
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<td>Trichodoridae</td>
<td><em>Paratrichodorus allius</em></td>
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<td><em>Paratrichodorus minor</em> [vector]</td>
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<td><em>Paratrichodorus teres</em></td>
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<td>Secernentea</td>
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<td>Aphelenchoididae</td>
<td><em>Aphelenchoides besseyi</em></td>
<td>rice white-tip nematode</td>
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<td><em>Aphelenchoides paretinus</em></td>
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<tr>
<td></td>
<td>Belonolaimidae</td>
<td><em>Belonolaimus gracilis</em></td>
<td>sting nematode</td>
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</table>
### Hoplolaimidae
- *Helicotylenchus indicus* spiral nematode
- *Helicotylenchus microlobus* spiral nematode
- *Helicotylenchus multicinctus* spiral nematode
- *Hoplolaimus seinhorsti* lance nematode
- *Rotylenchulus reniformis* reniform nematode

### Meloidogynidae
- *Meloidogyne arenaria* peanut root knot nematode
- *Meloidogyne chitwoodi* root knot nematode

### Tylenchidae
- *Ditylenchus dipsaci* [strains not in New Zealand] stem and bulb nematode

### Fungus

#### Ascomycota

##### Dothideales
- *Mycosphaerellaceae*
  - *Mycosphaerella allii-cepae* (anamorph *Cladosporium allii-cepae*) leaf blotch

##### Basidiomycota: Basidiomycetes

##### Agaricales
- *Tricholomataceae*
  - *Armillaria mellea* (anamorph *Rhizomorpha subcorticalis*) armillaria root rot

##### Basidiomycota: Ustomycetes

- *Tilletiaceae*
  - *Urocystis colchici* leaf smut

#### Oomycota

- *Pythiales*
  - *Pythiaceae*
    - *Phytophthora palmivora* black rot

#### mitosporic fungi (Coelomycetes)

- *Sphaeropsidales*
  - *Sphaerioidaceae*
    - *Phylosticta allii* leaf blight
    - *Septoria viridi-tingens* --

#### Bacterium

- *Enterobacteriaceae*
  - *Erwinia chrysanthemi pv. chrysanthemi* bacterial soft rot
  - *Erwinia rhapontici* bacterial soft rot

- *Pseudomonadaceae*
  - *Burkholderia cepacia* sour skin
  - *Pseudomonas xanthochlora* --

#### Virus

- *Garlic dwarf virus* -
- *Garlic mite-borne filamentous virus* -
- *Garlic mite-borne latent virus* -
- *Garlic virus A* -
- *Garlic virus X* -
- *Impatiens necrotic spot virus* -
- *Iris yellow spot virus* -
- *Onion mite-borne latent virus* -
- *Shallot mite-borne latent virus* -
Shallot virus X
Shallot yellow stripe virus
Sint-Jan's onion latent virus
Tobacco rattle virus [strains not in New Zealand]
Tomato black ring virus

Phytoplasma
Aster yellows phytoplasma
Garlic decline phytoplasma
Onion yellows phytoplasma
**NON-REGULATED PESTS (non-actionable)**

<table>
<thead>
<tr>
<th><strong>Insect</strong></th>
<th><strong>Insecta</strong></th>
<th><strong>Coleoptera</strong></th>
<th><strong>Curculionidae</strong></th>
<th><em>Listroderes difficilis</em></th>
<th>vegetable weevil</th>
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<td></td>
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<td><strong>Elateridae</strong></td>
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<td><em>Agrypnus variabilis</em></td>
<td>variable wireworm</td>
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<td><strong>Nitidulidae</strong></td>
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<td><em>Carpophilus hemipterus</em></td>
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<td><em>Dermoptera</em></td>
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<td><strong>Labiduridae</strong></td>
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<td><em>Euborellia annulipes</em></td>
<td>groundnut earwig</td>
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<td><em>Diptera</em></td>
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<td><strong>Anthomyiidae</strong></td>
<td><em>Delia platura</em></td>
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<td>seedcorn maggot</td>
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<td><strong>Syrphidae</strong></td>
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<td><em>Eumerus striatus</em></td>
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<td><em>Eumerus tuberculatus</em></td>
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<td><em>Merodon equestris</em></td>
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<td><em>Homoptera</em></td>
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<td><strong>Aphididae</strong></td>
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<td><em>Neotoxoptera formosana</em></td>
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<td><strong>Lepidoptera</strong></td>
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<td><em>Agrotis ipsilon aneituma</em></td>
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<td><strong>Pyralidae</strong></td>
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<td><em>Ephestia cautella</em></td>
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<td><em>Thysanoptera</em></td>
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<td><strong>Thripidae</strong></td>
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<td><em>Thrips tabaci</em></td>
<td>onion thrips</td>
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<td><em>Mite</em></td>
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<td><strong>Acarina</strong></td>
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<td><em>Arachnida</em></td>
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<td><strong>Acaridae</strong></td>
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<td><em>Rhizoglyphus echinopus</em></td>
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<td><em>Rhizoglyphus robini</em></td>
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<td><em>Tyrophagus putrescentiae</em></td>
<td>mould mite</td>
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<td><em>Eriophyidae</em></td>
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<td><strong>Aceria tulipae</strong></td>
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<td><em>Tetranychidae</em></td>
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<td><strong>Petrobia latens</strong></td>
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<td><em>Nematode</em></td>
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<td><strong>Adenophorea</strong></td>
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<td><em>Aphelenchus avenae</em></td>
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<td><strong>Dorylaimida</strong></td>
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<td><strong>Trichodoridae</strong></td>
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<td><em>Paratrichodorus minor</em></td>
<td>stubby root nematode</td>
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<tr>
<td><em>Secernentea</em></td>
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<td><strong>Tylenchidae</strong></td>
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<td><strong>Aphelenchidae</strong></td>
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<td><strong>Aphelenchoididae</strong></td>
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<td>foliar nematode</td>
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<td><strong>Hoplolaimidae</strong></td>
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</table>
Helicotylenchus dihystera spiral nematode
Helicotylenchus labiatus nematode

Meloidogynidae
Meloidogyne hapla northern root knot nematode
Meloidogyne incognita southern root knot nematode
Meloidogyne javanica Javanese root knot nematode

Pratylenchidae
Pratylenchus crenatus root lesion nematode
Pratylenchus penetrans root lesion nematode

Tylenchidae
Ditylenchus destructor potato rot nematode
Ditylenchus dipsaci stem and bulb nematode

Fungus

Ascomycota

Dothideales
Botryosphaeriaceae
Botryosphaeria rhodina (anamorph Lasiodiplodia theobromae) gummosis

Pleosporaceae
Pleospora allii (anamorph Stemphylium vesicarium) black mould
Pleospora herbarum (anamorph Stemphylium herbarum) black mould rot
Pleospora infectoria black mould
Pleospora tarda (anamorph Stemphylium botryosum) black mould

Hypocreales
Hypocreaceae
Gibberella acuminata (anamorph Fusarium acuminatum) fusarium storage rot
Gibberella avencacea (anamorph Fusarium avenaceum) fusarium stem canker
Gibberella fujikuroi (anamorph Fusarium fujikuroi) fusarium rot
Gibberella subglutinans (anamorph Fusarium subglutinans) fusarium rot
Nectria haematococca (anamorph Fusarium solani) fusarium fruit rot

Leotiales
Sclerotiniaceae
Botryotinia allii neck rot
Botryotinia fuckeliana (anamorph Botrytis cinerea) grey mould
Botryotinia squamosa (anamorph Botrytis squamosa) botrytis leaf blight
Sclerotinia sclerotiorum cottony rot

Phyllachorales
Phyllachoraceae
Glomerella cingulata (anamorph Colletotrichum gloeosporioides) anthracnose

Saccharomycetales
Dipodascaceae
Dipodascus geotrichum (anamorph Geotrichum candidum) sour rot

Saccharomycetaceae
Kluyveromyces marxianus yeast soft rot

Basidiomycota: Basidiomycetes
Ceratobasidiales
Ceratobasidiaceae
Thanatephorus cucumeris (anamorph Rhizoctonia solani) rhizoctonia rot

Stereales
Atheliaceae
Athelia rolfsii (anamorph Sclerotium rolfsii) Rolf's disease

Basidiomycota: Teliomycetes
Uredinales
Pucciniaceae
Puccinia allii rust

Basidiomycota: Ustomycetes
Platyglaeales

Platyglaeaceae
Helicobasidium purpureum (anamorph Rhizoctonia crocorum) violet root rot
Ustilagiales
Tilletiaceae

Urocystis magica
onion smut

Oomycota
Peronosporales

Peronosporaceae

Peronospora destructor
onion downy mildew

Pythiales
Pythiaceae

Phytophthora cactorum
phytophthora crown and root rot
Phytophthora cinnamomi
phytophthora crown and root rot
Phytophthora cryptogea
pink rot
Phytophthora drechleri
-
Phytophthora erythropoica
pink rot
Phytophthora nicotianae
buckeye rot
Phytophthora porri
white leaf spot
Pythium afield
pythium root rot
Pythium coloratum
pythium root rot
Pythium intermedium
root rot
Pythium irregulare
pythium root and stem rot
Pythium paraecondrum
pythium root and stem rot
Pythium rostratum
root rot
Pythium spinosum
pythium root rot
Pythium ultimum
leak
Pythium vexans (anamorph Stemphylium botryosum)
pythium root rot

Zygomycota: Zygomycetes

Mucorales

Mucoraceae

Rhizopus microsporus
mushy rot
Rhizopus oryzae
wet rot
Rhizopus stolonifer
rhizopus soft rot

mitosporic fungi (Agonomycetes)

Agononcetales

unknown Agonomycetales
Sclerotium cepivorum
white rot

mitosporic fungi (Coelomycetes)

Sphaeropsidales

Sphaeriodacae

Macrophomina phaseolina
ashy stem blight
Phoma destructiva
bulb rot
Phoma exigua
phoma rot
Pyrenochaeta terrestris
pink root rot

unknown Coelomycetes
unknown Coelomycetes
Colletotrichum circinans
smudge
Colletotrichum dematium
anthracnose

mitosporic fungi (Hyphomycetes)

Hyphomycetales

Dematiaceae

Alternaria alternata
black stalk rot
Alternaria porri
alternaria blight
Alternaria tenuissima
alternaria mould
Cercospora dudiae
leaf spot
Cladosporium allii
leaf blotch
Cochliobolus geniculatus
leaf spot
Embellisia allii
bulb canker
Stemphylium lycopersici
stemphylium fruit spot
Thielaviopsis basicola
black root rot

Moniliaceae

Botrytis tulipae
blast
<table>
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<th>Taxonomy</th>
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<tr>
<td><em>Cylindrocladiella parva</em></td>
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<td><strong>Tuberculariales</strong></td>
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<td><strong>Tuberculariaceae</strong></td>
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<td><em>Fusarium culmorum</em></td>
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<td><em>Fusarium oxysporum</em></td>
<td>leaf spot</td>
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<td><em>Fusarium oxysporum</em> f. sp. cepae</td>
<td>fusarium rot</td>
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<td><em>Fusarium poae</em></td>
<td>fusarium rot</td>
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<tr>
<td><strong>Bacterium</strong></td>
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<td><strong>Enterobacteriaceae</strong></td>
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<td><em>Erwinia carotovora</em> subsp. atroseptica</td>
<td>bacterial soft rot</td>
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<tr>
<td><em>Erwinia carotovora</em> subsp. carotovora</td>
<td>bacterial soft rot</td>
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<tr>
<td><em>Erwinia herbicola</em></td>
<td>purple stain</td>
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<td><em>Pectobacterium carotovorum</em></td>
<td>bacterial soft rot</td>
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<td><strong>Pseudomonadaceae</strong></td>
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<td><em>Burkholderia gladioli</em> pv. <em>alliicola</em></td>
<td>bacterial soft rot</td>
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<tr>
<td><em>Pseudomonas aeruginosa</em></td>
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<td><em>Pseudomonas cichorii</em></td>
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<tr>
<td><em>Pseudomonas fluorescens</em></td>
<td>pink eye</td>
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<td><em>Pseudomonas marginalis</em></td>
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<td><em>Pseudomonas marginalis</em> pv. <em>marginalis</em></td>
<td>leaf spot</td>
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<tr>
<td><em>Pseudomonas syringae</em></td>
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<td><em>Pseudomonas syringae</em> pv. <em>porri</em></td>
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<td><em>Pseudomonas syringae</em> pv. <em>syringae</em></td>
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<td><em>Pseudomonas vindflava</em></td>
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<td><em>Ralstonia solanacearum</em> (Race 1)</td>
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<td><strong>Virus</strong></td>
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<td><em>Cucumber mosaic virus</em></td>
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<td><em>Garlic common latent virus</em></td>
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<td><em>Garlic mosaic virus</em></td>
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<td><em>Garlic virus C</em></td>
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<td><em>Leek yellow stripe virus</em></td>
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<td><em>Onion yellow dwarf virus</em></td>
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<td><em>Shallot latent virus</em></td>
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<td><em>Strawberry latent ringspot virus</em></td>
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<td><em>Tobacco mosaic virus</em></td>
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<td><em>Tobacco necrosis virus</em></td>
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<td><em>Tobacco rattle virus</em> [Paeonia and Narcissus infecting strains]</td>
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<td><em>Tomato spotted wilt virus</em></td>
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</table>
Alstroemeria

Note: The entry conditions in this schedule only apply to species in the Plants Biosecurity Index listed under Import Specifications for Nursery Stock as “see 155.02.06 under Alstroemeria”, and are additional to those specified in sections 1, 2 and 3 of the import health standard.

GENERAL CONDITIONS:

Countries: Australia, Austria, Belgium, Canada, Belgium, Denmark, Finland, France, Germany, Greece, Ireland, Israel, Italy, Luxembourg, The Netherlands, Portugal, Spain, Sweden, United Kingdom, USA.

Quarantine Pests: Frankliniella occidentalis, Liriomyza spp.

Entry Conditions: Basic; with variations and additional conditions as specified below:

A. For Whole Plants:
PEQ: Level 2
Minimum Period: 3 months
Additional Declaration:
"The plants have been inspected in accordance with appropriate official procedures and found to be free of Frankliniella occidentalis and Liriomyza spp."

B. For Dormant Bulbs:
OPTION 1:
No import permit is required.
PEQ: None
Additional Declaration(s):
1) For bulbs produced under a MAF-approved Dutch bulb propagation scheme:
"In addition to inspection of the dormant bulbs prior to shipment, the imported bulbs meet the requirements of the NAKtuinbouw Elite (Class SEE or EE) or Select (Class A or E) [choose one] bulb certification scheme."
OR
2) For bulbs NOT produced under a MAF-approved bulb propagation scheme:
"In addition to inspection of dormant bulbs prior to shipment, the crop from which the bulbs were derived was inspected during the growing season according to appropriate procedures, and considered free of quarantine pests, and practically free from other injurious pests."

OPTION 2:
PEQ: Level 1
Minimum Period: 3 months

C. For Tissue Cultures:
As for Standard Entry Conditions for Tissue Cultures - see Section 2.2.2.
Andromeda

Note: The entry conditions in this schedule only apply to species in the Plants Biosecurity Index listed under Import Specifications for Nursery Stock as “see 155.02.06 under Andromeda”, and are additional to those specified in sections 1, 2 and 3 of the import health standard.

GENERAL CONDITIONS:

Countries: Austria, Belgium, Canada, Denmark, Finland, France, Germany, Greece, Hungary, Ireland, Italy, Luxembourg, The Netherlands, Norway, Portugal, Spain, Sweden, Switzerland, United Kingdom, USA.

Quarantine Pests: Chrysomyxa ledi, Microsphaeria spp.

Entry Conditions: Basic; with variations and additional conditions as specified below:

A. For Whole Plants:

PEQ: Level 2
Minimum Period: 3 months

Additional Declarations:

1. "Chrysomyxa ledi and Microsphaeria spp. are not known to occur in _____ (the country or state of where the plants were grown) _____".

OR
"The plants were inspected during the growing season and no Chrysomyxa ledi or Microsphaeria spp. was detected".

2. "The plants have been dipped prior to export in propiconazole at the rate of 0.5g a.i. per litre of water."

B. For Tissue Cultures:

As for Standard Entry Conditions for Tissue Cultures - see Section 2.2.2.
Anemone

Note: The entry conditions in this schedule only apply to species in the Plants Biosecurity Index listed under Import Specifications for Nursery Stock as “see 155.02.06 under Anemone”, and are additional to those specified in sections 1, 2 and 3 of the import health standard.

GENERAL CONDITIONS:

Countries: Australia, Austria, Belgium, Canada, Denmark, Finland, France, Germany, Greece, Ireland, Israel, Italy, Luxembourg, The Netherlands, Portugal, Spain, Sweden, United Kingdom, USA.

Quarantine Pests: Uredinales

Entry Conditions: Basic; with variations and additional conditions as specified below:

A. For Whole Plants
PEQ: Level 2
Minimum Period: 3 months
Additional Declaration:
"Rust diseases of genus Coleosporium and Cronatium are not known to occur on _____(the host species being imported)_____ in _____(the country in which the plants were grown)______".

B. For Dormant Bulbs:

OPTION 1:
No import permit is required.
PEQ: None
Additional Declaration(s):
“In addition to inspection of dormant bulbs prior to shipment, the crop from which the bulbs were derived was inspected during the growing season according to appropriate procedures, and considered free of quarantine pests, and practically free from other injurious pests.”

OPTION 2:
PEQ: Level 1
Minimum Period: 3 months

C. For Tissue Cultures:
As for Standard Entry Conditions for Tissue Cultures - see Section 2.2.2.
Anthurium

Note: The entry conditions in this schedule only apply to species in the Plants Biosecurity Index listed under Import Specifications for Nursery Stock as “see 155.02.06 under Anthurium”, and are additional to those specified in sections 1, 2 and 3 of the import health standard.

GENERAL CONDITIONS:

Countries: All

Entry Conditions: Basic; with variations and additional conditions as specified below:

A. For Cuttings and Whole Plants:
PEQ: Level 2
Minimum Period: 3 months

B. For Plants in Tissue Culture:

As for Standard Entry Conditions for Tissue Cultures - see Section 2.2.2.
Anubias

Note: The entry conditions in this schedule only apply to species in the Plants Biosecurity Index listed under Import Specifications for Nursery Stock as “see 155.02.06 under Anubias”, and are additional to those specified in sections 1, 2 and 3 of the import health standard.

GENERAL CONDITIONS:

Countries: All

Quarantine Pests: Snails, snail eggs, worms, and leeches

Entry Conditions: Basic; with variations and additional conditions as specified below:

A. For Whole Plants:

PEQ: Level 2
Minimum Period: 3 months

Additional Declaration:
"The plants were inspected immediately prior to export and no snails, snail eggs, worms or leeches were detected in a 600 unit sample".

Special Conditions:

i) each aquarium must be clear sided and clearly labelled as follows:

   QUARANTINE AQUARIUM
   MAF Registration Number:
   Name of Quarantine Operator:

   ii) the aquarium must be placed in a watertight tray, the bottom of which must contain a dilute solution of copper sulphate (5 parts per million or a small grain of a copper sulphate crystal in a litre of water);

   iii) must be inside a building which can be secured;

   iv) must be at least 5m away from a non-quarantine aquarium.

B. For Tissue Cultures:

As for Standard Entry Conditions for Tissue Cultures - see Section 2.2.2
Note: The entry conditions in this schedule only apply to species in the Plants Biosecurity Index listed under Import Specifications for Nursery Stock as “see 155.02.06 under *Arbutus*”, and are additional to those specified in sections 1, 2 and 3 of the import health standard.

**GENERAL CONDITIONS:**

**Countries:** All

**Quarantine Pests:** *Phytophthora ramorum*

**Entry Conditions:** Basic; with variations and additional conditions as specified below:

A. For Cuttings and Whole Plants from Australia, Canada, Israel and South Africa (these commodities may only be imported from these countries):
   PEQ: Level 2
   Minimum Period: 3 months
   **Additional Declaration:**
   "The plants have been sourced from a “Pest free area”, free from *Phytophthora ramorum*".

B. For Plants in Tissue Culture from All Countries:
   As for **Standard Entry Conditions for Tissue Cultures** - see Section 2.2.2.
**Aronia**

**Note:** The entry conditions in this schedule only apply to species in the Plants Biosecurity Index listed under Import Specifications for Nursery Stock as “see 155.02.06 under *Aronia*”, and are additional to those specified in sections 1, 2 and 3 of the import health standard.

**GENERAL CONDITIONS:**

**Countries:** Austria, Belgium, Canada, Denmark, Finland, France, Germany, Greece, Hungary, Ireland, Italy, Luxembourg, The Netherlands, Norway, Portugal, Spain, Sweden, Switzerland, United Kingdom, USA.

**Quarantine Pests:** *Gymnosporangium clavipes, Gymnosporangium globosum*

**Entry Conditions:** Basic; with variations and additional conditions as specified below:

**For Whole Plants and Tissue Culture:**

**Option 1**

- **PEQ:** Level 2
- **Minimum Period:** 6 months

**Additional Declarations:**

1. "*Gymnosporangium clavipes and Gymnosporangium globosum* are not known to occur on ______ (host species being imported) ______ in ______ (the country or state in which the plants were grown) ______".

2. "The plants have been dipped in propiconazole at the rate of 0.5g a.i. per litre of water, prior to export".

**OPTION 2:**

- **PEQ:** Level 3
- **Minimum Period:** 3 months
Note: The entry conditions in this schedule only apply to species in the Plants Biosecurity Index listed under Import Specifications for Nursery Stock as “see 155.02.06 under Arum”, and are additional to those specified in sections 1, 2 and 3 of the import health standard.

GENERAL CONDITIONS:

Countries: All

Quarantine Pests: Virus diseases

Entry Conditions: Basic; with variations and additional conditions as specified below:

A. For Whole Plants:
PEQ: Level 2
Minimum Period: 6 months

B. For Dormant Bulbs from Australia, Austria, Belgium, Canada, Denmark, Finland, France, Germany, Greece, Ireland, Israel, Italy, Luxembourg, The Netherlands, Portugal, South Africa, Spain, Sweden, United Kingdom, USA:

OPTION 1:
No import permit is required.
PEQ: None
Additional Declaration(s):
“In addition to inspection of dormant bulbs prior to shipment, the crop from which the bulbs were derived was inspected during the growing season according to appropriate procedures, and considered free of quarantine pests, and practically free from other injurious pests.”

OPTION 2:
PEQ: Level 1
Minimum Period: 3 months

C. For Dormant Bulbs from Countries other than Australia, Austria, Belgium, Canada, Denmark, Finland, France, Germany, Greece, Ireland, Israel, Italy, Luxembourg, The Netherlands, Portugal, South Africa, Spain, Sweden, United Kingdom, USA:

OPTION 1:
PEQ: Level 1
Minimum Period: 3 months
Additional Declaration(s):
"The dormant bulbs in this consignment have been:
- derived from a crop which was inspected during the growing season according to appropriate procedures and found to be free of regulated pests.
AND
- treated for regulated insects as described in section 2.2.1.7 of the basic conditions within 7 days prior to freezing, cold-storage or shipment.”
OPTION 2:
PEQ: Level 2
Minimum Period: 3 months

D. For Tissue Cultures:
As for Standard Entry Conditions for Tissue Cultures - see Section 2.2.2.
PLUS:
Additional Declaration:
"The cultures have been derived from parent stock tested and found free of virus diseases."
Asparagus

Note: The entry conditions in this schedule only apply to species in the Plants Biosecurity Index listed under Import Specifications for Nursery Stock as “see 155.02.06 under Asparagus”, and are additional to those specified in sections 1, 2 and 3 of the import health standard.

GENERAL CONDITIONS:

Countries: All

Quarantine Pests: Puccinia asparagi; virus diseases

Entry Conditions: Basic; with variations and additional conditions as specified below:

For Whole Plants and Tissue Culture:

PEQ: Level 3
Minimum Period: 3 months
Note: The entry conditions in this schedule only apply to species in the Plants Biosecurity Index listed under Import Specifications for Nursery Stock as “see 155.02.06 under *Aster*”, and are additional to those specified in sections 1, 2 and 3 of the import health standard.

**GENERAL CONDITIONS:**

**Countries:** Australia, Austria, Belgium, Canada, Denmark, Finland, France, Germany, Greece, Hungary, Ireland, Italy, Luxembourg, The Netherlands, Norway, Portugal, Spain, Sweden, Switzerland, United Kingdom, USA.

**Quarantine Pests:** Aster yellows phytoplasma, Uredinales

**Entry Conditions:** Basic; with variations and additional conditions as specified below:

**A. For Whole Plants:**
PEQ: Level 2
Minimum Period: 3 months
Additional Declarations:
"Aster yellows phytoplasma is not known to occur in ___ (the country or state where the plants were grown) ___ ."

B. For Tissue Cultures:
As for **Standard Entry Conditions for Tissue Cultures** - see Section 2.2.2.
PLUS:
Additional Declaration:
"The cultures have been derived from parent stock tested or inspected and found free of Aster yellows phytoplasma".
Note: The entry conditions in this schedule only apply to species in the Plants Biosecurity Index listed under Import Specifications for Nursery Stock as “see 155.02.06 under Beaucarnea”, and are additional to those specified in sections 1, 2 and 3 of the import health standard.

GENERAL CONDITIONS:

Countries: All

Entry Conditions: Basic; with variations and additional conditions as specified below:

A. For Cuttings and Whole Plants:
PEQ: Level 2
Minimum Period: 3 months

B. For Plants in Tissue Culture:

As for Standard Entry Conditions for Tissue Cultures - see Section 2.2.2.
**Note:** The entry conditions in this schedule only apply to species in the Plants Biosecurity Index listed under Import Specifications for Nursery Stock as “see 155.02.06 under *Begonia*”, and are additional to those specified in sections 1, 2 and 3 of the import health standard.

**GENERAL CONDITIONS:**

**Countries:** All

**Quarantine Pests:** Virus diseases

**Entry Conditions:** Basic; with variations and additional conditions as specified below:

**A. For Whole Plants:**
**PEQ:** Level 2
**Minimum Period:** 6 months

**B. For Dormant Bulbs from Australia, Austria, Belgium, Canada, Denmark, Finland, France, Germany, Greece, Ireland, Israel, Italy, Luxembourg, The Netherlands, Portugal, South Africa, Spain, Sweden, United Kingdom, USA:**

**OPTION 1:**
No import permit is required.
**PEQ:** None
**Additional Declaration(s):**
1) For bulbs produced under a MAF-approved Dutch bulb propagation scheme:
"In addition to inspection of the dormant bulbs prior to shipment, the imported bulbs meet the requirements of the BKD Class 1 or ALG [choose one] bulb certification scheme."

OR

2) For bulbs NOT produced under a MAF-approved bulb propagation scheme:
"In addition to inspection of dormant bulbs prior to shipment, the crop from which the bulbs were derived was inspected during the growing season according to appropriate procedures, and considered free of quarantine pests, and practically free from other injurious pests."

**OPTION 2:**
**PEQ:** Level 1
**Minimum Period:** 3 months
C. For Dormant Bulbs from Countries other than Australia, Austria, Belgium, Canada, Denmark, Finland, France, Germany, Greece, Ireland, Israel, Italy, Luxembourg, The Netherlands, Portugal, South Africa, Spain, Sweden, United Kingdom, USA:

**OPTION 1:**
PEQ: Level 1
Maximum Period: 3 months
Additional Declaration(s):
"The dormant bulbs in this consignment have been:
- derived from a crop which was inspected during the growing season according to appropriate procedures and found to be free of regulated pests.
AND
- treated for regulated insects as described in section 2.2.1.7 of the basic conditions within 7 days prior to freezing, cold-storage or shipment."

**OPTION 2:**
PEQ: Level 2
Maximum Period: 3 months

**D. For Tissue Cultures:**
As for Standard Entry Conditions for Tissue Cultures - see Section 2.2.2.
PLUS:
Additional Declaration:
"The cultures have been derived from parent stock tested and found free of virus diseases."
Note: The entry conditions in this schedule only apply to species in the Plants Biosecurity Index listed under Import Specifications for Nursery Stock as “see 155.02.06 under Berberis”, and are additional to those specified in sections 1, 2 and 3 of the import health standard.

GENERAL CONDITIONS:

Countries: All

Quarantine Pests: Uredinales

Entry Conditions: Basic; with variations and additional conditions as specified below:

For Whole Plants (dormant) or Cuttings (dormant):
PEQ: Level 2
Minimum Period: 3 months

Additional Declarations:

1. "The plants were inspected during the previous growing season and no rust diseases were detected".

2. "The plants have been dipped in propiconazole at the rate of 0.5g a.i. per litre of water".
**Bidens**

**Note:** The entry conditions in this schedule only apply to species in the Plants Biosecurity Index listed under Import Specifications for Nursery Stock as “see 155.02.06 under Bidens”, and are additional to those specified in sections 1, 2 and 3 of the import health standard.

**GENERAL CONDITIONS:**

**Countries:** All

**Quarantine Pests:** Xylella fastidiosa

**Entry Conditions:** Basic; with variations and additional conditions as specified below:

A. For Cuttings and Whole Plants from All Countries except Argentina, Belize, the Caribbean Islands, Costa Rica, El Salvador, Guatemala, Honduras, Mexico, Nicaragua, Panama, Peru, United States of America, Venezuela and Yugoslavia:

**PEQ:** Level 2

**Minimum Period:** 3 months

**Additional Declaration(s):**
1. "The plants have been dipped in Furalaxyl at the rate of 0.25g a.i. per litre of water".
2. "The plants have been sourced from a “Pest free area”, free from *Xylella fastidiosa*".

B. For Plants in Tissue Culture from All Countries:

As for **Standard Entry Conditions for Tissue Cultures** - see Section 2.2.2.
Note: The entry conditions in this schedule only apply to species in the Plants Biosecurity Index listed under Import Specifications for Nursery Stock as “see 155.02.06 under Bowenia”, and are additional to those specified in sections 1, 2 and 3 of the import health standard.

GENERAL CONDITIONS:

Countries: All except Australia and Italy

Quarantine Pests: Demyrsus meleoides

Entry Conditions: Basic; with variations and additional conditions as specified below:

A. For Cuttings (dormant), including offsets in the form of dormant buds divided from the trunk:

PEQ: Level 2
Minimum Period: 6 months
Inspection Requirements: A minimum of 600 plants are to be inspected during each inspection in post-entry quarantine

B. For Plants in Tissue Culture:

As for Standard Entry Conditions for Tissue Cultures - see Section 2.2.2.
Calanthe

Note: The entry conditions in this schedule only apply to species in the Plants Biosecurity Index listed under Import Specifications for Nursery Stock as “see 155.02.06 under Calanthe”, and are additional to those specified in sections 1, 2 and 3 of the import health standard.

GENERAL CONDITIONS:

Countries: All

Quarantine Pests: Uredinales, Tetranychus kanzawai

Entry Conditions: Basic; with variations and additional conditions as specified below:

A. For Whole Plants:
PEQ: Level 2
Minimum Period: 1 year
Additional Declarations:
1. "The plants have been dipped in propiconazole at the rate of 0.5g a.i. per litre of water, prior to export".
2. "The plants have been dipped prior to export in dicofol at the rate of 0.7g a.i. per litre of water".

B. For Tissue Cultures:
As for Standard Entry Conditions for Tissue Cultures - see Section 2.2.2.
Camellia

Note: The entry conditions in this schedule only apply to species in the Plants Biosecurity Index listed under Import Specifications for Nursery Stock as “see 155.02.06 under Camellia”, and are additional to those specified in sections 1, 2 and 3 of the import health standard.

GENERAL CONDITIONS:

Countries: Australia, Austria, Belgium, Canada, Denmark, Finland, France, Germany, Greece, Hungary, Ireland, Italy, Japan, Luxembourg, The Netherlands, Norway, Portugal, Spain, Sweden, Switzerland, United Kingdom, USA.

Quarantine Pests: Phytophthora ramorum; Tetranychus kanzawai

Entry Conditions: Basic; with variations and additional conditions as specified below:

A. For Cuttings and Whole Plants from Australia and Canada (these commodities may only be imported from these countries):
   PEQ: Level 2
   Minimum Period: 3 months
   Additional Declarations:
   1. "The plants have been dipped in prochloraz at the rate of 0.5g a.i. per litre of water".
   2. "The plants have been sourced from a “Pest free area”, free from Phytophthora ramorum".
   Special Condition: All visible flower buds are to be removed prior to export.

B. For Tissue Cultures:
As for Standard Entry Conditions for Tissue Cultures - see Section 2.2.2.
Camellia sinensis

**Note:** The entry conditions in this schedule only apply to species in the Plants Biosecurity Index listed under Import Specifications for Nursery Stock as “see 155.02.06 under *Camellia sinensis*”, and are additional to those specified in sections 1, 2 and 3 of the import health standard.

**GENERAL CONDITIONS:**

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<thead>
<tr>
<th>Countries</th>
<th>Afghanistan</th>
<th>Iran</th>
<th>Mongolia</th>
<th>Syria</th>
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<td>Armenia</td>
<td>Iraq</td>
<td>Myanmar</td>
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<td>Indonesia</td>
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<td>Sri Lanka</td>
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**Quarantine Pests:** *Exobasidium vexans*; Phloem necrosis; *Phytophthora ramorum*; *Tetranychus kanzawai*.

**Entry Conditions:** Basic; with variations and additional conditions as specified below:

**For Whole Plants and Tissue Culture:**

- **PEQ:** Level 3
- **Minimum Period:** 3 months
Canna

Note: The entry conditions in this schedule only apply to species in the Plants Biosecurity Index listed under Import Specifications for Nursery Stock as “see 155.02.06 under Canna”, and are additional to those specified in sections 1, 2 and 3 of the import health standard.

GENERAL CONDITIONS:

Countries: All

Quarantine Pests: Virus diseases; *Xylella fastidiosa*

Entry Conditions: Basic; with variations and additional conditions as specified below:

A. For Whole Plants from All Countries except Argentina, Belize, the Caribbean Islands, Costa Rica, El Salvador, Guatemala, Honduras, Mexico, Nicaragua, Panama, Peru, United States of America, Venezuela and Yugoslavia:

   PEQ: Level 2
   Minimum Period: 6 months
   Additional Declaration(s):
   "The plants have been sourced from a “Pest free area”, free from *Xylella fastidiosa*".

B. For Dormant Bulbs from Australia, Austria, Belgium, Canada, Denmark, Finland, France, Germany, Greece, Ireland, Israel, Italy, Luxembourg, The Netherlands, Portugal, South Africa, Spain, Sweden, United Kingdom:

   OPTION 1:
   No import permit is required.
   PEQ: None
   Additional Declaration(s):
   1. “In addition to inspection of dormant bulbs prior to shipment, the crop from which the bulbs were derived was inspected during the growing season according to appropriate procedures, and considered free of quarantine pests, and practically free from other injurious pests.”
   2. "The plants have been sourced from a “Pest free area”, free from *Xylella fastidiosa*".

   OPTION 2:
   PEQ: Level 1
   Minimum Period: 3 months
C. For Dormant Bulbs from Countries other than Argentina, Australia, Austria, Belgium, Belize, Canada, the Caribbean Islands, Costa Rica, Denmark, El Salvador, Guatemala, Finland, France, Germany, Greece, Honduras, Ireland, Israel, Italy, Luxembourg, Mexico, The Netherlands, Nicaragua, Panama, Peru, Portugal, South Africa, Spain, Sweden, United Kingdom, United States of America, Venezuela and Yugoslavia:

OPTION 1:
PEQ: Level 1
Minimum Period: 3 months
Additional Declaration(s):
"The dormant bulbs in this consignment have been:
- derived from a crop which was inspected during the growing season according to appropriate procedures and found to be free of regulated pests.
AND
- treated for regulated insects as described in section 2.2.1.7 of the basic conditions within 7 days prior to freezing, cold-storage or shipment.
AND
- sourced from a “Pest free area”, free from Xylella fastidiosa”.

OPTION 2:
PEQ: Level 2
Minimum Period: 3 months

D. For Tissue Cultures from All Countries:
As for Standard Entry Conditions for Tissue Cultures - see Section 2.2.2.
PLUS:
Additional Declaration:
"The cultures have been derived from parent stock tested and found free of virus diseases."
Carica

**Note:** The entry conditions in this schedule only apply to species in the Plants Biosecurity Index listed under Import Specifications for Nursery Stock as “see 155.02.06 under *Carica*”, and are additional to those specified in sections 1, 2 and 3 of the import health standard.

**GENERAL CONDITIONS:**

**Countries:** All

**Quarantine Pests:** Papaya mosaic virus, Papaya ringspot virus

**Entry Conditions:** Basic; with variations and additional conditions as specified below:

**OPTION 1:**

A. For Whole Plants:

PEQ: Level 2  
Minimum Period: 3 months

Additional Declaration:

"Papaya mosaic virus and Papaya ringspot virus are not known to occur in _______(the country or state where the plants were grown) _______."

B. For Tissue Cultures:

As for Standard Entry Conditions for Tissue Cultures - see Section 2.2.2

PLUS:

Additional Declaration:

"The cultures have been derived from parent material tested and found free of Papaya ringspot virus and Papaya ringspot virus."

**OPTION 2:**

For Whole Plants and Tissue Cultures:

PEQ: Level 3  
Minimum Period: 3 months
Note: The entry conditions in this schedule only apply to species in the Plants Biosecurity Index listed under Import Specifications for Nursery Stock as “see 155.02.06 under Carpinus”, and are additional to those specified in sections 1, 2 and 3 of the import health standard.

GENERAL CONDITIONS:

Countries: All

Quarantine Pests:

Entry Conditions: Basic; with variations and additional conditions as specified below:

For Whole Plants (dormant) or Cuttings (dormant):
PEQ: Level 2
Minimum Period: 3 months

Additional Declaration:

"The plants have been dipped in a combination of ______ (insert one of the options below) ______, at the rate of 1g a.i. per litre of water, and thiram, at the rate of 1.5g a.i. per litre of water”.

Note: One of the following fungicides is to be used:

Benomyl
Carbendazim
Thiophanate methyl
**Note:** The entry conditions in this schedule only apply to species in the Plants Biosecurity Index listed under Import Specifications for Nursery Stock as “see 155.02.06 under *Carya*”, and are additional to those specified in sections 1, 2 and 3 of the import health standard.

**GENERAL CONDITIONS:**

**Countries:** Australia, USA

**Quarantine Pests:** *Fusicladium effusum, Pecan bunch*

**Entry Conditions:** Basic; with variations and additional conditions as specified below:

**PEQ:** Level 2  
**Minimum Period:** 6 months

**Additional Declaration:**

"*Fusicladium effusum* and Pecan bunch are not known to occur in _____ (the country or state where the plants were grown) ______".
Carya ovata

Note: The entry conditions in this schedule only apply to species in the Plants Biosecurity Index listed under Import Specifications for Nursery Stock as “see 155.02.06 under Carya ovata”, and are additional to those specified in sections 1, 2 and 3 of the import health standard.

GENERAL CONDITIONS:

Countries: All

Quarantine Pests: Cryphonectria parasitica;

Entry Conditions: Basic; with variations and additional conditions as specified below:

A. For Cuttings (dormant) and Whole Plants (dormant) from All Countries:

OPTION 1:
PEQ: Level 2
Minimum Period: 3 months
Additional Declaration(s):
"Cryphonectria parasitica is not known to occur in _____ (the country or state where the plants/cuttings were produced) ______".

OPTION 2:
PEQ: Level 3
Minimum Period: 6 months

B. For Tissue Cultures from All Countries:
As for Standard Entry Conditions for Tissue Cultures - see Section 2.2.2, but subject to examination at a MAF-registered laboratory at the importers expense, prior to release to the importer.
Note: The entry conditions in this schedule only apply to species in the Plants Biosecurity Index listed under Import Specifications for Nursery Stock as “see 155.02.06 under Castanea”, and are additional to those specified in sections 1, 2 and 3 of the import health standard.

**GENERAL CONDITIONS:**

**Countries:** Australia, Austria, Belgium, Canada, Denmark, Finland, France, Germany, Greece, Hungary, Ireland, Italy, Luxembourg, The Netherlands, Norway, Portugal, Spain, Sweden, Switzerland, United Kingdom, USA.

**Quarantine Pests:** *Conotrachelus carinifer, Curculio spp., Ceratocystis fagacearum, Cryphonectria parasitica, Dryocosmus kuriphilus, Phytophthora ramorum, Xylella fastidiosa*

**Entry Conditions:** Basic; with variations and additional conditions as specified below:

**For Whole Plants (dormant) and Cuttings (dormant) and Tissue Culture:**

**PEQ:** Level 3

**Minimum Period:** 3 months

**Additional Declaration:**

1. "The plants have been sourced from a “Pest free area”, free from *Xylella fastidiosa*".
2. "*Cryphonectria parasitica* and *Ceratocystis fagacearum* are not known to occur in _____ (the country or state where the plants were grown) ______".

**OR**

"The plants were inspected (or the wood was taken from a tree that was inspected) during the previous growing season and no *Cryphonectria parasitica* or *Ceratocystis fagacearum* was detected."
**Cedrus**

**Note:** The entry conditions in this schedule only apply to species in the Plants Biosecurity Index listed under Import Specifications for Nursery Stock as “see 155.02.06 under *Cedrus*”, and are additional to those specified in sections 1, 2 and 3 of the import health standard.

**GENERAL CONDITIONS:**

Countries: All

Quarantine Pests: *Bursaphelenchus* spp.; *Lophodermium* spp.; Uredinales

Entry Conditions: Basic; with variations and additional conditions as specified below:

A. **For Whole Plants:**
   PEQ: Level 3
   Minimum Period: 6 months

B. **For Tissue Cultures:**
   As for *Standard Entry Conditions for Tissue Cultures* - see Section 2.2.2, but subject to examination at a MAF-registered laboratory at the importers expense, prior to release to the importer.
**Chrysanthemum morifolium**

**Note:** The entry conditions in this schedule only apply to species in the Plants Biosecurity Index listed under Import Specifications for Nursery Stock as “see 155.02.06 under *Chrysanthemum morifolium*”, and are additional to those specified in sections 1, 2 and 3 of the import health standard.

**GENERAL CONDITIONS:**

**Countries:** All

**Quarantine Pests:** *Frankliniella occidentalis*, *Liriomyza* spp., virus diseases

**Entry Conditions:** Basic; with variations and additional conditions as specified below:

A. **For Whole Plants:**
   - **PEQ:** Level 2
   - **Minimum Period:** 3 months
   - **Additional Declaration:**
     "The plants have been inspected in accordance with appropriate official procedures and found to be free of *Frankliniella occidentalis* and *Liriomyza* spp."

B. **For Tissue Cultures:**
   - As for **Standard Entry Conditions for Tissue Cultures** - see Section 2.2.2.
   - **PLUS:**
     - **Additional Declaration:**
       "The cultures have been derived from parent stock tested and found free of virus or virus like diseases."
**Citrus**

**Note:** The entry conditions in this schedule only apply to species in the Plants Biosecurity Index listed under Import Specifications for Nursery Stock as “see 155.02.06 under *Citrus*”, and are additional to those specified in sections 1, 2 and 3 of the import health standard.

1. **Type of Citrus nursery stock approved for entry into New Zealand**
   - Cuttings (dormant); Plants in tissue culture

2. **Pests of Citrus**
   - Refer to the pest list.

3. **Entry conditions for:**
   
   3.1 **Citrus cuttings from offshore MAF-accredited facilities (quarantine stations)**
   
   An offshore accredited facility is a facility that has been accredited to the MAF Standard PIT.OS.TRA.ACPQF to undertake phytosanitary activities. For *Citrus*, the accredited facility operator must also have an agreement with MAF on the phytosanitary measures to be undertaken for *Citrus*.
   
   (i) **Documentation**
   
   **Import permit is required**
   
   **Phytosanitary certificate:** a completed phytosanitary certificate issued by the exporting country national plant protection organisation (NPPO) must accompany all *Citrus* cuttings exported to New Zealand.
   
   (ii) **Inspection, Testing and Treatments of the consignment**
   
   The inspection, testing and treatment requirements for specified regulated pests must be undertaken at the accredited facility as specified in the agreement between MAF and the accredited facility operator. Refer to *Citrus* Inspection, Testing and Treatment Requirements following the *Citrus* pest list.
   
   (iii) **Phytosanitary requirements**
   
   Before a phytosanitary certificate is to be issued, the exporting country NPPO must be satisfied that the following activities required by MAF have been undertaken.
   
   The *Citrus* cuttings have been:
   
   - inspected in accordance with appropriate official procedures and found to be free of any visually detectable regulated pests specified by MAF (refer to the pest list).
   
   AND
   
   - sourced from either mother plants that have been kept in insect proof plant houses or from open ground mother plants
   
   AND
   
   - held and tested for/classified free from specified regulated pests at a MAF-accredited facility
   
   AND
   
   - held in a manner to ensure that infestation/reinfestation does not occur, following testing (and certification) at the accredited facility.
   
   (iv) **Additional declarations to the phytosanitary certificate**
   
   If satisfied that the pre-shipment activities have been undertaken, the exporting country...
NPPO must confirm this by providing the following additional declarations to the phytosanitary certificate:

"The Citrus cuttings in this consignment have been:
- inspected in accordance with appropriate official procedures and found to be free of any visually detectable regulated pests specified by MAF, and to conform with New Zealand’s current phytosanitary requirements.
AND
- sourced from mother plants that have been kept in insect proof plant houses/sourced from open ground mother plants [choose one].
AND
- held and tested for/classified free from specified regulated pests at the accredited facility as required in the agreement between MAF and the accredited facility operator.
AND
- held in a manner to ensure infestation/reinfestation does not occur following testing (and certification), at the accredited facility."

(v) Post-entry quarantine
PEQ: Level 2
Quarantine Period: This is the time required to complete inspections and/or indexing to detect regulated pathogens. Indicative minimum quarantine periods are: 6 months for Citrus cuttings sourced from mother plants that have been kept in insect proof plant houses, or 16 months for Citrus cuttings sourced directly from open ground mother plants. The quarantine period may be extended if material is slow growing, pests are detected, or treatments/testing are required.

3.2 Citrus cuttings from non-accredited facilities in any country
(i) Documentation
Import permit is required
Phytosanitary certificate: a completed phytosanitary certificate issued by the exporting country national plant protection organisation (NPPO) must accompany all Citrus cuttings exported to New Zealand.

(ii) Phytosanitary requirements
Before a phytosanitary certificate is to be issued, the exporting country NPPO must be satisfied that the following activities required by MAF have been undertaken.
The Citrus cuttings have been:
- inspected in accordance with appropriate official procedures and found to be free of any visually detectable regulated pests specified by MAF (refer to the pest list).

(iii) Additional declarations to the phytosanitary certificate
If satisfied that the pre-shipment activities have been undertaken, the exporting country NPPO must confirm this by providing the following additional declarations to the phytosanitary certificate:

"The Citrus cuttings in this consignment have been:
- inspected in accordance with appropriate official procedures and found to be free of any visually detectable regulated pests specified by MAF, and to conform with the current phytosanitary requirements of MAF."
(iv) **Inspection, Testing and Treatments of the consignment**
Following inspection at the border, upon arrival, the *Citrus* cuttings will be directed to a facility accredited to the MAF standard BMG-STD-TREAT: Approval of Suppliers Providing Treatment of Imported Risk Goods and Forestry/Plant Related Material for Export, to be sprayed/dipped in MAF-approved miticide and insecticides as described in section 2.2.1.6 of the basic conditions.

Following treatment, testing for specified regulated pests must be undertaken at a New Zealand Level 3 MAF-accredited facility. Refer to *Citrus* Inspection, Testing and Treatment Requirements following the *Citrus* pest list.

(v) **Post-entry quarantine**

**PEQ:** Level 3

**Quarantine Period:** This is the time required to complete inspections and/or indexing to detect regulated pathogens. 16 months is an indicative minimum quarantine period. The quarantine period may be extended if material is slow growing, pests are detected, or treatments/testing are required.

### 3.3 *Citrus* plants in tissue culture from offshore MAF-accredited facilities

An offshore accredited facility is a facility that has been accredited to the MAF Standard PIT.OS.TRA.ACPQF to undertake phytosanitary activities. For *Citrus*, the accredited facility operator must also have an agreement with MAF on the phytosanitary measures to be undertaken for *Citrus*.

(i) **Documentation**

**Import permit is required**

**Phytosanitary certificate:** a completed phytosanitary certificate issued by the exporting country national plant protection organisation (NPPO) must accompany all *Citrus* tissue culture exported to New Zealand.

(ii) **Pest proof container and growing media for tissue culture**

Cultures imported in a growing media must have been grown in the vessel in which they are imported. The container must be rigid, and either clear plastic or clear glass. The tissue culture media must not contain charcoal.

(iii) **Inspection, Testing and Treatments of the consignment**

The inspection, treatment and testing requirements for specified pests must be undertaken at the accredited facility as specified in the arrangement between MAF and the accredited facility operator. Refer to *Citrus* Inspection, Testing and Treatment Requirements following the *Citrus* pest list.

(iv) **Phytosanitary requirements**

Before a phytosanitary certificate is to be issued, the exporting country NPPO must be satisfied that the following activities required by MAF have been undertaken.

The *Citrus* tissue culture have been:

- inspected in accordance with appropriate official procedures and found to be free of any visually detectable regulated pests specified by MAF (refer to the pest list).

AND

- held and tested for/classified free from specified regulated pests at a MAF-
accredited facility
AND
- held in a manner to ensure that infestation/reinfestation does not occur, following testing (and certification) at the accredited facility.

(v) Additional declarations to the phytosanitary certificate
If satisfied that the pre-shipment activities have been undertaken, the exporting country NPPO must confirm this by providing the following additional declarations to the phytosanitary certificate:

"The *Citrus* tissue culture in this consignment have been:
- inspected in accordance with appropriate official procedures and found to be free of any visually detectable regulated pests specified by MAF, and to conform with New Zealand’s current phytosanitary requirements.
AND
- held and tested for/classified free from specified regulated pests at the accredited facility as specified in the agreement between MAF and the accredited facility operator.
AND
- held in a manner to ensure infestation/reinfestation does not occur following testing (and certification), at the accredited facility."

(vi) Post-entry quarantine
PEQ: Level 2
Quarantine Period: This is the time required to complete inspections and/or indexing to detect regulated pests. Six months is an indicative minimum quarantine period. The quarantine period may be extended if material is slow growing, pests are detected, or treatments/testing are required.

3.4 *Citrus* plants in tissue culture from non-accredited facilities in any country

(i) Documentation
Import permit is required
Phytosanitary certificate: a completed phytosanitary certificate issued by the exporting country national plant protection organisation (NPPO) must accompany all *Citrus* nursery stock exported to New Zealand.

(ii) Pest proof container and growing media for tissue culture
Cultures imported in a growing media must have been grown in the vessel in which they are imported. The container must be rigid, and either clear plastic or clear glass. The tissue culture media must not contain charcoal.

(iii) Phytosanitary requirements
Before a phytosanitary certificate is to be issued, the exporting country NPPO must be satisfied that the following activities required by MAF have been undertaken.

The *Citrus* tissue culture have been:
- inspected in accordance with appropriate official procedures and found to be free of any visually detectable regulated pests specified by MAF (refer to the pest list).

(iv) Additional declarations to the phytosanitary certificate
If satisfied that the pre-shipment activities have been undertaken, the exporting country NPPO must confirm this by providing the following additional declarations to the phytosanitary certificate:

"The Citrus tissue culture in this consignment have been:
- inspected in accordance with appropriate official procedures and found to be free of any visually detectable regulated pests specified by MAF, and to conform with the current phytosanitary requirements of MAF."

(v) Inspection, Testing and Treatments of the consignment
Upon arrival, the inspection, treatment and testing requirements for specified pests must be undertaken at a New Zealand Level 3 MAF-accredited facility. Refer to Citrus Inspection, Testing and Treatment Requirements following the Citrus pest list.

(vi) Post-entry quarantine
PEQ: Level 3
**Quarantine Period:** This is the time required to complete inspections and/or indexing to detect regulated pests. 16 months is an indicative minimum quarantine period. The quarantine period may be extended if material is slow growing, pests are detected or treatments/testing are required.
# Pest List for *Citrus*

## REGULATED PESTS (actionable)

<table>
<thead>
<tr>
<th>Insect</th>
<th>Subfamily</th>
<th>Species</th>
<th>Description</th>
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<tbody>
<tr>
<td>Coleoptera</td>
<td>Bostrichidae</td>
<td>Apate indistincta</td>
<td>shot-hole borer</td>
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<td>Apate terebrans</td>
<td>shot-hole borer</td>
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<td>Buprestidae</td>
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<td>spined citrus bug</td>
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<td><strong>Glaucaia subpunctatus</strong></td>
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<td><strong>Aleurodicus dispersus</strong></td>
<td>spiralling whitefly</td>
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Aleurolobus marlatti
Aleurolopus sp.
Aleurothrixus floccosus
Aleurotuba jelinekii
Aleurotuberculatus aucubae
Bemisia citricola
Dialeurodes citri
Dialeurodes citrifolii
Dialeurolonga sp.
Parabemisia myricae
Siphoninus phillyreae

Aphididae
Aphis fabae
Aulacorthum magnoliae

Cicadellidae
Asymmetrasca decedens
Circulifer opacipennis
Circulifer tenellus
Cuerna costalis
Edwardsiana flavescens
Empoasca bodenheimeri
Empoasca citrula
Empoasca decipiens
Empoasca distinguenda
Empoasca fabae
Empoasca oruiki
Homalodisca coagulata
Homalodisca lacerta
Jacobiasca lybica
Neoaliturus haematoceps
Penthimiola bella
Scaphytopius nitidus

Cicadidae
Cryptotympana facialis
Meimuna opalifera

Coccidae
Ceroplastes floridensis
Ceroplastes japonicus
Ceroplastes rubens
Ceroplastes ruscii
Coccus celatus
Coccus pseudomagnolianum
Coccus viridis
Cribrolecanium andersoni
Gascardia brevicauda
Protopulvinaria pyriformis
Pulvinaria aethiopica
Pulvinaria aurantii
Pulvinaria cellulosa
Saissetia citricola
Saissetia somerenci

Dactylopiidae
Dactylopius filamentosus
Dactylopius vastator

Diaspididae
Aonidiella citrina
Chrysomphalus aonidum
Chrysomphalus bifasciculatus
Chrysomphalus dictyospermi
Chrysomphalus pinnulifera

Biosecurity New Zealand Standard 155.02.06: Importation of Nursery Stock
1 March 2005
<table>
<thead>
<tr>
<th>Scientific Name</th>
<th>Common Name</th>
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<td>Azotus platensis [Animals Biosecurity]</td>
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<td>Cales noacki [Animals Biosecurity]</td>
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<td>Cales orchamplati [Animals Biosecurity]</td>
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<td>Centrodora penthimiae [Animals Biosecurity]</td>
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<td>Coccophagus caridei [Animals Biosecurity]</td>
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<td>Coccophagus pulvinariae [Animals Biosecurity]</td>
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<td>Encarsia ectophaga [Animals Biosecurity]</td>
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<td>Encarsia laholensis [Animals Biosecurity]</td>
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<td>Encarsia lounsburyi [Animals Biosecurity]</td>
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<td>Encarsia opulenta [Animals Biosecurity]</td>
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<td>Encarsia smithi [Animals Biosecurity]</td>
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<td>Family</td>
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<td>Eretmocerus serius</td>
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<td>Marietta leopardina</td>
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<td>Anicutus beneficus</td>
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<td>Comperiella bifasciata</td>
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<td>Habroplepis rouxi</td>
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<td>Leptomastix dactylopii</td>
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<td>Metaphycus helvolus</td>
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<td>Metaphycus stanleyi</td>
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<td>Psyllaephagus pulvinatus</td>
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<td>Tamarixia radiatus</td>
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<td>Anastatus biporuli</td>
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<td>Bruchophagus felli</td>
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<td>Anoplolepis braunsi</td>
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<td>Anoplolepis steingroeveri</td>
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<td>Atta cephalotes</td>
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<td>Atta sexdens</td>
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<td>Atta texana</td>
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<td>Camponotus rufoglaucus</td>
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<td>Crematogaster castanea</td>
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<td>Crematogaster liengmei</td>
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<td>Crematogaster peringueyi</td>
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<td>Lepisiota capensis</td>
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<td>Myrmicaria natalensis</td>
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<td>Pheidole tenuinodis</td>
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<td>Polyrhachis schistaceus</td>
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<td>Solenopsis invicta</td>
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<td>Tapinoma arnoldi</td>
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<td>Technomyrmex albipes forelli</td>
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<td>Mymaridae</td>
<td>Chaetomyrmar gracile</td>
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<td>Chaetomyrmar lepidum</td>
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<td>Gonatorcerus incomptus</td>
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<td>Platygastridae</td>
<td>Amitus hesperidum</td>
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<td>Amitus spiniferus</td>
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<td>Fidiobia citri</td>
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<tr>
<td>Scelionidae</td>
<td>Trissolcus oeneus</td>
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<td>Trissolcus onone</td>
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<td>Trissolcus ogyges</td>
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<td>Signiphoridae</td>
<td>Signiphora fax</td>
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<td>Signiphora flavella</td>
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<td>Signiphora perpauca</td>
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</table>
Trichogrammatidae
   Trichogramma platneri [Animals Biosecurity] -

Vespidae
   Polistes spp. [Animals Biosecurity] paper wasps

Isoptera
   Termitidae
      Odontotermes lokanandi termite

Lepidoptera
   Arctidae
      Lemyra imparilis mulberry tiger moth

   Blastobasidae
      Holocera iceryaeella -

   Cosmopterigidae
      Pyroderces rileyi pink scavenger caterpillar

   Geometridae
      Anacampodes fragilaria koa haole looper
      Ascots selenaria reciprocaria citrus looper
      Gymnoscelis rufifasciata geometrid moth
      Hyposidra talacana -

   Gracillariidae
      Phyllocnistis citrella citrus leafminer

   Hepialidae
      Endocrita excrescens Japanese swift moth
      Endocrita sinensis -

   Lycaenidae
      Virachola isocrates pomegranate butterfly

   Lymantriidae
      Orgyia vetusta western tussock moth

   Metarbelidae
      Indarbela tetraonis stem borer

   Noctuidae
      Arcte coerula fruit-piercing moth
      Eudocima fullonia fruit-piercing moth
      Helicoverpa assulta cape gooseberry budworm
      Helicoverpa punctigera oriental tobacco budworm
      Tiracola plagiata banana fruit caterpillar
      Xylomyges curialis noctuid moth

   Nymphalidae
      Charaxes jasius nymphalid butterfly

   Oecophoridae
      Psorosticha melanocrepida citrus leafroller
      Psorosticha zizyphi citrus leafroller
      Statromopoda auriferella apple heliodinid

   Papilionidae
      Papilio aegeus aegeus -
      Papilio anactus small citrus butterfly
      Papilio crespontes orange dog
      Papilio dardanus cenea -
      Papilio demodocus orange dog
      Papilio demoleus demoleus -
      Papilio helenus nicconicolens -
      Papilio machaon asiatica -
      Papilio memnon citrus swallowtail
      Papilio memnon thunbergii -
      Papilio nireius lyaeus -
      Papilio polytes polytes -
      Papilio proteron demetrius -
      Papilio xuthus citrus swallowtail
      Papilio zelicaon anise swallowtail

   Psychidae
Eumeta hardenbergi
Eumeta japonica
Eumeta minuscula
Eumeta moddemanni
Hyalarcta huebneri

Pyralidae
Apomyelois ceratoniae
date pyralid

Tortricidae
Adoxophyes sp.
Amorbia cuneana
Archips argyrospilus
Archips machlopis
Archips occidentalis
Archips rosanus
Argyrotaenia citrana
Cacoecimorpha pronubana
Cryptophlebia batrachopa
Cryptophlebia leucotreta
Homona magnanima
Isotenes miserana
Platynota sultana
Tortrix capensana

Yponomeutidae
Prays citri
citrus flower moth
Prays parilis
citrus flower moth

Neuroptera
Chrysopidae
Chrysopa oculata [Animals Biosecurity]

Coniopterygidae
Coniopteryx vicina [Animals Biosecurity]
Conwentzia barretti [Animals Biosecurity]

Orthoptera
Acrididae
Zonocerus elegans
elegant grasshopper

Gryllidae
Ormebus kanetataki
 cricket

Tettigoniidae
Caedicia sp.
Japanese broadwinged katydid
Microcentrum retinerve
smaller angular-winged katydid
Scudderia furcata
fork-tailed bush katydid

Psocoptera
Archipsocidae
Archipsocus sp.
bark louse

Thysanoptera

Aeolothripidae
Frankliniorthips vesiformis [Animals Biosecurity]

Thripidae
Chaetanaphrothrips orchidii
banana rust thrips
Leptothrips mali
black hunter thrips
Scirtothrips aurantii
citrus thrips
Scirtothrips citri
citrus thrips
Scirtothrips dorsalis
chillthrips
Scirtothrips mangiferae
mango thrips
Scolothrips sexmaculatus [Animals Biosecurity]

Thrips
Thrips coloratus
thrips
Thrips flavus
flower thrips
Thrips palmi
palm thrips
## Unknown Insecta

*Cosmophyllum pallidulum*

---

### Mite

#### Arachnida

#### Acarina

##### Acaridae

- *Thyreophagus entomophagus italicus* [Animals Biosecurity]

##### Anystidae

- *Anystis agilis* [Animals Biosecurity]

##### Eriophyidae

- *Aculops pelekassi* eriophid mite
- *Tegolophus australis* brown citrus mite

##### Phytoseiidae

- *Amblyseius addoensis* [Animals Biosecurity]
- *Amblyseius citri* [Animals Biosecurity]
- *Amblyseius swirskii* [Animals Biosecurity]
- *Euseius hibisci* [Animals Biosecurity]
- *Euseius scutalis* [Animals Biosecurity]
- *Euseius stipulatus* [Animals Biosecurity]
- *Euseius tularensis* [Animals Biosecurity]
- *Iphiseius degenerans* [Animals Biosecurity] predatory mite
- *Typhlodromus athiasae* [Animals Biosecurity]

##### Stigmaeidae

- *Agistemus africanus* [Animals Biosecurity]
- *Agistemus tranatalensis* [Animals Biosecurity]
- *Eryngiopus siculus* [Animals Biosecurity]

##### Tarsenemidae

- *Tarsenemus cryptocoephalus* [Animals Biosecurity]

##### Tenuipalpidae

- *Brevipalpus chilensis* false spider mite
- *Brevipalpus lewisi* bunch mite
- *Brevipalpus obovatus* privet mite
- *Tenuipalpus emeticae* [Animals Biosecurity]
- *Tuckerella ornata*
- *Ultratenuipalpus goniamaensis* tenuipalpid mite

##### Tetranychidae

- *Calacarus citrifolii* clover mite
- *Eotetranychus kankitus* tetranychid mite
- *Eotetranychus lewisi* big beaked plum mite
- *Eotetranychus yumensis* Yumi spider mite
- *Eutetranychus africanus* tetranychid mite
- *Eutetranychus banksi* Texus citrus mite
- *Eutetranychus orientalis* pear leaf blister mite
- *Oligonychus mangiferus* mango spider mite
- *Tetranychus kanzawai* kanzawa mite

##### Tuckerellidae

- *Tuckerella knorri* hawthorn spider mite

---

### Spider

#### Arachnida

#### Araneae

##### Clubionidae

- *Cheiracanthium mildei* [Animals Biosecurity]

##### Theridiidae

- *Theridion sp.* [Animals Biosecurity]

---

### Mollusc

#### Gastropoda
Stylommatophora
Achatinidae
Achatina immaculata
Lissachatina immaculata

Bradybaenidae
Acusta despecta sieboldiana

Subulinidae
Rumina decollata

Urocyclidae
Urocyclus flavescens
Urocyclus kirkii

Fungus
Ascomycota
Diaporthales
Valsaceae
Diaporthe rudis (anamorph Phomopsis rudis) phomopsis canker

Dothideales
Elsinoaceae
Elsinoe australis sweet orange scab

Capnodiales
Capnodium citri sooty mould

Didymosphaeriaceae
Didymosphaeria sp.

Mycosphaerellaceae
Guignardia citricarpa (anamorph Phyllosticta citricarpa) [black spot strain]
Mycosphaerella citri (anamorph Stenella citri-grisea) rind blotch
Mycosphaerella horii greasy spot

Patellariales
Patellariaceae
Rhytidhysterion rufulum --

Saccharomycetales
Saccharomycetaceae
Debaryomyces hansenii --
Galactomyces citri-aurantii (anamorph Geotrichum citri-aurantii) sour rot

Basidiomycota: Basidiomycetes
Boletales
Coniophoraceae
Coniophora eremophila brown wood rot

Basidiomycota: Telosporales
Septobasidiales
Septobasidiaceae
Septobasidium pseudopedicellatum felt fungus

Mitosporic Fungi
Unknown Mitosporic Fungi
Unknown Mitosporic Fungi
Sphaeceloma fawcettii var. scabiosa --

Mitosporic Fungi (Coelomycetes)
Sphaeropsidales
Sphaerioidaceae
Macrophoma mantegazziana --
Phoma erratica var. mikan--
Phoma tracheiphila mal secco
Phomopsis sp.
Septoria spp.
Sphaeropsis tumefaciens stem gall

Unknown Coelomycetes
Unknown Coelomycetes
Aschersonia placenta [Animals Biosecurity] --
Gloeosporium folicolum fruit rot

**Mitosporic Fungi (Hyphomycetes)**

**Hyphomycetales**

**Dematiaceae**
- Alternaria limicola
- Alternaria pellucida
- Cercospora microsora
- Phaeoramularia angolensis cercospora spot
- Stemphylium rosarium --
- Ulocladium obovoideum ulocladium rot

**Unknown Hyphomycetes**

**Unknown Hyphomycetes**
- Aureobasidium sp.
- Hirsutella thompsonii [Animals Biosecurity] --
- Isaria sp. [Animals Biosecurity] --
- Oidium tingitanum powdery mildew
- Sporobolomyces roseus --
- Stenella sp. --

**Zygomycota: Zygomycetes**

**Glomales**

**Glomaceae**
- Glomus etunicatum [Animals Biosecurity] --

**Mucorales**

**Syncephalastraceae**
- Syncephalastrum racemosum --

**Bacterium**

**Bacterium family unknown**
- Liberobacter africanum citrus greening bacterium
- Liberobacter asiaticum citrus greening bacterium
- Liberobacter sp. citrus greening bacterium
- Spiroplasma citri citrus stubborn

**Pseudomonadaceae**
- Burkholderia cepacia sour skin
- Xanthomonas axonopodis pv. citri citrus canker
- Xanthomonas campestris pv. aurantifolii --
- Xanthomonas campestris pv. citrumelo citrus bacterial spot
- Xylella fastidiosa Pierce's disease
- Xylella fastidiosa pv. citri variegated chlorosis of citrus

**Virus**

Indian citrus mosaic badnavirus --
citrus cachexia viroid --
citrus chlorotic dwarf --
citrus infectious variegation ilarivirus --
citrus infectious variegation ilarivirus [crinkly leaf strain] --
citrus leaf rugose ilarivirus --
citrus leathery leaf virus --
citrus leprosis rhabdovirus --
citrus mosaic virus --
citrus ringspot virus --
citrus tatter leaf capillovirus --
citrus tristeza closterovirus [strains not in New Zealand] --
citrus variable viroid --
citrus viroids (groups I-IV) --
citrus yellow mosaic badnavirus --
citrus yellow mottle virus --
dwarfing factor viroid --
navel orange infectious mottling virus --
<table>
<thead>
<tr>
<th>Plant Disease/Phytoplasma</th>
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<tbody>
<tr>
<td>satsuma dwarf nepovirus</td>
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<tr>
<td>satsuma dwarf nepovirus [Natsudaidai dwarf strain]</td>
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<tr>
<td>xylorhiza viroid</td>
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<td>yellow vein clearing of lemon</td>
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</table>

**Phytoplasma**

<table>
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<th>Phytoplasma Name</th>
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</thead>
<tbody>
<tr>
<td><em>Candidatus Phytoplasma aurantifolia</em></td>
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<td>witches' broom phytoplasma</td>
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<tr>
<td>rubbery wood</td>
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**Disease of unknown aetiology**

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<th>Disease Name</th>
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<tbody>
<tr>
<td>Australian citrus dieback</td>
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<tr>
<td>blind pocket</td>
</tr>
<tr>
<td>bud union disease</td>
</tr>
<tr>
<td>citrus blight disease</td>
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<tr>
<td>citrus fatal yellows</td>
</tr>
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<td>citrus impietratura disease</td>
</tr>
<tr>
<td>citrus sunken vein disease</td>
</tr>
<tr>
<td>concave gum</td>
</tr>
<tr>
<td>cristacortis</td>
</tr>
<tr>
<td>gum pocket</td>
</tr>
<tr>
<td>gummy bark</td>
</tr>
<tr>
<td>kassala disease</td>
</tr>
<tr>
<td>lemon sieve tube necrosis</td>
</tr>
<tr>
<td>shell bark of lemons</td>
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<tr>
<td>zonate chlorosis</td>
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### NON-REGULATED PESTS (non-actionable)

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<th>Insect</th>
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<td><strong>Coleoptera</strong></td>
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<tr>
<td><strong>Anthribidae</strong></td>
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<tr>
<td><em>Araeaeus fasciculatus</em></td>
<td>coffee bean weevil</td>
</tr>
<tr>
<td><strong>Cerambycidae</strong></td>
<td></td>
</tr>
<tr>
<td><em>Oemona hirta</em></td>
<td>lemon tree borer</td>
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<tr>
<td><strong>Coccinellidae</strong></td>
<td></td>
</tr>
<tr>
<td><em>Cryptolaemus montrouzieri</em></td>
<td>mealybug destroyer</td>
</tr>
<tr>
<td><em>Rodolia cardinalis</em> [Animals Biosecurity]</td>
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<tr>
<td><strong>Curculionidae</strong></td>
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</tr>
<tr>
<td><em>Asynonychus cervinus</em></td>
<td>Fuller's rose weevil</td>
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<tr>
<td><em>Listroderes obliquus</em></td>
<td>vegetable weevil</td>
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<tr>
<td><em>Maleutorpes spinipes</em></td>
<td>dicky rice weevil</td>
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<tr>
<td><em>Phlyctinus callosus</em></td>
<td>banded fruit weevil</td>
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<tr>
<td><strong>Scarabaeidae</strong></td>
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<tr>
<td><em>Costelytra zealandica</em></td>
<td>grass grub</td>
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<tr>
<td><strong>Diptera</strong></td>
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<tr>
<td><strong>Cryptochaetidae</strong></td>
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</tr>
<tr>
<td><em>Cryptochaetum iceryae</em> [Animals Biosecurity]</td>
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<tr>
<td><strong>Drosophilidae</strong></td>
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<tr>
<td><em>Drosophila melanogaster</em></td>
<td>vinegar fly</td>
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<tr>
<td><strong>Hemiptera</strong></td>
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<tr>
<td><strong>Pentatomomidae</strong></td>
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<tr>
<td><em>Nezara viridula</em></td>
<td>green vegetable bug</td>
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<tr>
<td><strong>Homoptera</strong></td>
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<tr>
<td><strong>Aleyrodidae</strong></td>
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<tr>
<td><em>Orchamoplatus citri</em></td>
<td>Australian citrus whitefly</td>
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<tr>
<td><strong>Aphididae</strong></td>
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<tr>
<td><em>Aphis craccivora</em></td>
<td>cowpea aphid</td>
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<tr>
<td><em>Aphis gossypii</em></td>
<td>cotton aphid</td>
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<tr>
<td><em>Aphis nerii</em></td>
<td>oleander aphid</td>
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<td><em>Aphis spiraecola</em></td>
<td>spirea aphid</td>
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<tr>
<td><em>Macrosiphum euphorbiae</em></td>
<td>potato aphid</td>
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<tr>
<td><em>Myzus cerasi</em></td>
<td>black cherry aphid</td>
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<tr>
<td><em>Myzus persicae</em></td>
<td>green peach aphid</td>
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<tr>
<td><em>Toxoptera auranti</em></td>
<td>black citrus aphid</td>
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<td><em>Toxoptera citricida</em></td>
<td>brown citrus aphid</td>
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<tr>
<td><strong>Coccidae</strong></td>
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<tr>
<td><em>Ceroplastes ceriferus</em></td>
<td>Indian white wax scale</td>
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<tr>
<td><em>Ceroplastes destructor</em></td>
<td>white wax scale</td>
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<tr>
<td><em>Ceroplastes sinensis</em></td>
<td>Chinese wax scale</td>
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<tr>
<td><em>Coccus hesperidum</em></td>
<td>brown soft scale</td>
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<tr>
<td><em>Coccus longulus</em></td>
<td>long brown scale</td>
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<tr>
<td><em>Saissetia coffeae</em></td>
<td>hemispherical scale</td>
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<tr>
<td><em>Saissetia oleae</em></td>
<td>black scale</td>
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<tr>
<td><strong>Diaspididae</strong></td>
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<tr>
<td><em>Aonidiella aurantii</em></td>
<td>California red scale</td>
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<tr>
<td><em>Aspidiotus hederae</em></td>
<td>oleander scale</td>
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<tr>
<td><em>Aspidiotus nerii</em></td>
<td>oleander scale</td>
</tr>
<tr>
<td><em>Diaspis santali</em></td>
<td>scale</td>
</tr>
<tr>
<td><em>Lindiaspis rossi</em></td>
<td>Ross' black scale</td>
</tr>
<tr>
<td><em>Lopholeucaspis japonica</em></td>
<td>pear white scale</td>
</tr>
<tr>
<td><em>Parlatoria pergandii</em></td>
<td>chaff scale</td>
</tr>
<tr>
<td><em>Pinnaspis aspidistrae</em></td>
<td>fern scale</td>
</tr>
<tr>
<td><em>Quadraspis duplicatus</em> [Animals Biosecurity]</td>
<td>-</td>
</tr>
<tr>
<td><em>Quadraspidiotus perniciosus</em></td>
<td>San Jose scale</td>
</tr>
</tbody>
</table>
Flatidae
Siphanta acuta  green planthopper

Margarodidae
Icerya purchasi  cottony cushion scale

Pseudococcidae
Planococcus citri  citrus mealybug
Planococcus mali  -
Pseudococcus calceolariae  citrophilus mealybug
Pseudococcus longispinus  longtailed mealybug
Pseudococcus viburni  obscure mealybug

Ricaniidae
Scolyopa australis  passionvine hopper

Hymenoptera

Aphelinidae
Aphytis chrysomphali [Animals Biosecurity]  -
Encarsia citrina [Animals Biosecurity]  -
Encarsia perniciosi [Animals Biosecurity]  -

Encyrtidae
Cocidoctonus dubius [Animals Biosecurity]  -

Formicidae
Linepithema humile [Animals Biosecurity]  Argentine ant
Phleidole megacephala [Animals Biosecurity]  big-headed ant

Lepidoptera

Geometridae
Pseudocoremia dejectaria  -
Pseudocoremia suavis  pine looper

Hepialidae
Aenetus virescens  puriri moth

Noctuidae
Helicoverpa armigera  tomato fruitworm
Spodoptera litura  cluster caterpillar

Oecophoridae
Stathmopoda phylegyra [Animals Biosecurity]  -

Tortricidae
Cnephasia jactatana  black lyre leafroller
Ctenopseustis obliquana  brownheaded leafroller
Epaphixys axenana  -
Epiphyas postvittana  light brown apple moth
Planotortrix excessana  greenheaded leafroller

Orthoptera

Tettigonidae
Caedicia simplex  katydid

Thysanoptera

Phlaeothripidae
Nesothrips propinquus breviceps  -

Thripidae
Frankliniella occidentalis  western flower thrips
Heliothrips haemorrhoidalis  greenhouse thrips
Pezothrips keltenus  Kelly's citrus thrips
Thrips hawaiiensis  Hawaiian flower thrips
Thrips obscuratus  New Zealand flower thrips
Thrips tabaci  onion thrips

Mite

Arachnida
Acarina

Eriophyidae
Aceria sheldoni  citrus bud mite
Phyllocoptura oleivora  citrus rust mite

Phytoseiidae
Phytoseiulus persimilis [Animals Biosecurity]  
 predatory mite

Stigmaeidae
Eryngiopus bifidus [Animals Biosecurity]

Tarsenemidae
Polyphagotarsonemus latus  
 broad mite

Tenuipalpidae
Brevipalpus californicus  
 bunch mite
Brevipalpus phoenicis  
 passionvine mite

Tetranychidae
Eotetranychus sexmaculatus  
 sixspotted mite
Panonychus citri  
 citrus red mite
Tetranychus cinnabarinus  
 carmine spider mite
Tetranychus urticae  
 twospotted spider mite

Mollusc
Gastropoda
Stylommatophora
Helicidae
Helix aspersa  
 common garden snail
Limacidae
Deroceras reticulatum  
 grey garden slug

Fungus
Ascomycota
Diaporthales
Valsaceae
Diaporthe citri (anamorph Phomopsis citri)  
 melanose

Diatrypales
Diatrypaceae
Eutypa lata  
 eutypa dieback

Dothideales
Botryosphaeriaceae
Botryosphaeria dothidea (anamorph Fusarium aesculi)  
 canker
Botryosphaeria rhodina  
 gummosis

Capnodiales
Capnodium salicinum  
 sooty mould

Elsinoaceae
Elsinoe fawcettii (anamorph Sphaceloma fawcettii)  
 verrucosis

Mycosphaerellaceae
Guignardia citricarpa (anamorph Phyllosticta citricarpa) [non-pathogenic strain]  
 latent skin infection
Mycosphaerella pinodes (anamorph Ascochyta pinodes)  
 mycosphaerella blight
Mycosphaerella tassiana (anamorph Cladosporium herbarum)  
 black leaf spot

Pleosporaceae
Pleospora herbarum (anamorph Stempylhum herbarum)  
 black mould rot

Hypocreales

Hypocreaceae
Gibberella baccata (anamorph Fusarium lateritium)  
 fusarium rot
Gibberella fujikuroi (anamorph Fusarium fujikuroi)  
 fusarium rot
Gibberella intricans (anamorph Fusarium equiseti)  
 root and stem dry rot
Nectria haematococca (anamorph Fusarium solani)  
 fusarium fruit rot

Leotiales
Sclerotiniaceae
Botryotinia fuckeliana (anamorph Botrytis cinerea)  
 grey mould
Sclerotinia sclerotiorum  
 cottony rot

Phyllachorales

Phyllachoraceae
Glomeraella cingulata (anamorph Colletotrichum gloeosporioides)  
 anthracnose
### Dipodascaceae  
_Dipodascus geotrichum_ (anamorph _Geotrichum candidum_) sour rot

### Endomycetaceae  
_Endomyces geotrichum_ endomyces

### Xylariiales  
### Xylariaceae  
_Ustulina deusta_ coal fungus

### Basidiomycota: Basidiomycetes  
### Stereales  
### Hyphodermataceae  
_Enythricium salmonicolor_ (anamorph _Necator decretus_) pink disease

### Mitosporic Fungi (Coelomycetes)  
### Sphaeropsidales  
#### Leptostromataceae  
_Gloeodes pomigena_ sooty blotch

### Mitosporic Fungi (Hyphomycetes)  
### Hyphomycetales  
#### Dematiaceae  
_Alternaria alternata_ black stalk rot  
_Alternaria citri_ alternaria rot  
_Alternaria hesperidearum_ --

#### Moniliaceae  
_Aspergillus flavus_ aspergillus storage rot  
_Aspergillus niger_ aspergillus rot  
_Penicillium digitatum_ green mould  
_Penicillium italicum_ blue mould  
_Penicillium ulaiense_ penicillium mould  
_Verticillium lecanii_ [Animals Biosecurity] --

### Tuberculariales  
#### Tuberculariaceae  
_Fusarium culmorum_ dry rot  
_Fusarium oxysporum_ leaf spot

### Unknown Hyphomycetes  
### Unknown Hyphomycetes  
_Trichotheicum roseum_ pink rot

### Oomycota  
### Pythiales  
#### Pythiaceae  
_Phyllosticta citricola_ brown rot of fruit  
_Phyllosticta citrophthora_ citrus brown rot  
_Phyllosticta hibernalis_ citrus brown rot  
_Phyllosticta nicotianae var. parasitica_ collar and root rot

### Zygomycota: Zygomycetes  
### Mucorales  
#### Mucoraceae  
_Rhizopus stolonifer_ rhizopus soft rot

### Bacterium  
#### Pseudomonadaceae  
_Pseudomonas corrugata_ tomato pith necrosis  
_Pseudomonas fluorescens_ pink eye  
_Pseudomonas syringae_ bacterial blast  
_Pseudomonas syringae pv. syringae_ bacterial soft rot

### Virus  
citrus enation - woody gall luteovirus
citrus exocortis viroid  -
citrus psorosis A    -
citrus psorosis B    -
citrus tristeza closterovirus [seedling yellows, decline, and stem pitting strains (except Hassuku dwarf, Capao Bonito, and Queensland and South African orange stem pitting strains)] -
hop stunt viroid -
## Inspection, Testing and Treatment Requirements for *Citrus*

<table>
<thead>
<tr>
<th>ORGANISM TYPES</th>
<th>MAF ACCEPTABLE METHODS</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Insects</strong></td>
<td>Visual inspection AND approved insecticide treatments (Refer to section 2.2.1.6 of the basic conditions).</td>
</tr>
<tr>
<td><strong>Mites</strong></td>
<td>Visual inspection AND approved miticide treatments (Refer to section 2.2.1.6 of the basic conditions).</td>
</tr>
<tr>
<td><strong>Fungus</strong></td>
<td>Country freedom OR growing season inspection for symptom expression.</td>
</tr>
<tr>
<td><strong>Bacterium</strong></td>
<td></td>
</tr>
<tr>
<td><em>Burkholderia cepacia</em></td>
<td>Growing season inspection for symptom expression.</td>
</tr>
<tr>
<td><em>Liberobacter africanum</em></td>
<td>Country freedom OR graft-inoculated sweet oranges, orange pineapple, 18 to 25°C.</td>
</tr>
<tr>
<td><em>Liberobacter asiaticum</em></td>
<td>Country freedom OR graft-inoculated sweet oranges, orange pineapple, 18 to 25°C.</td>
</tr>
<tr>
<td><em>Spiroplasma citri</em></td>
<td>Country freedom/shoot tip grafting. Graft inoculated sweet orange, 27 to 32°C. Bioassay = culture petiole new flush tissue. Collect tissue after several days at hot temperature (&gt; 30°C) and incubate cultures at 32°C.</td>
</tr>
<tr>
<td><strong>Virus</strong></td>
<td></td>
</tr>
<tr>
<td><em>Xanthomonas axonopodis pv. citri</em></td>
<td>Country freedom/shoot tip grafting bioassay/detached leaf bioassay/ PCR OR suitable citrus indicator.</td>
</tr>
<tr>
<td><em>Xanthomonas campestris pv. aurantifolii</em></td>
<td>Country freedom/shoot tip grafting bioassay/detached leaf bioassay/ PCR OR suitable citrus indicator.</td>
</tr>
<tr>
<td><em>Xanthomonas campestris pv. citrul neo</em></td>
<td>Country freedom/shoot tip grafting bioassay/detached leaf bioassay/ PCR OR suitable citrus indicator.</td>
</tr>
<tr>
<td><em>Xylella fastidiosa</em></td>
<td>Country freedom/shoot tip grafting bioassay/ PCR/ELISA OR suitable citrus indicator.</td>
</tr>
<tr>
<td><em>Xylella fastidiosa pv. citri</em></td>
<td>Country freedom/shoot tip grafting bioassay PCR/ELISA OR suitable citrus indicator.</td>
</tr>
<tr>
<td>ORGANISM TYPES</td>
<td>MAF ACCEPTABLE METHODS</td>
</tr>
<tr>
<td>----------------</td>
<td>------------------------</td>
</tr>
<tr>
<td>satsuma dwarf nepovirus [Natsudaidai dwarf strain]</td>
<td>Country freedom OR graft inoculated satsums. Grow indicators at cool temperatures 18 to 25°C.</td>
</tr>
<tr>
<td>yellow vein clearing of lemon</td>
<td>Country freedom OR graft inoculated Mexican lime or sour orange. Grow indicators at cool temperatures 18 to 25°C.</td>
</tr>
<tr>
<td><strong>Viroid</strong></td>
<td></td>
</tr>
<tr>
<td>citrus cachexia viroid</td>
<td>Country freedom OR SPAGE and PCR on graft inoculated citron extract. Grow citron at hot temperature 27 to 32°C.</td>
</tr>
<tr>
<td>citrus variable viroid</td>
<td>Country freedom OR SPAGE and PCR on graft inoculated citron extract. Grow citron at hot temperature 27 to 32°C.</td>
</tr>
<tr>
<td>citrus viroids (groups I-IV)</td>
<td>Country freedom OR SPAGE and PCR on graft inoculated citron extract. Grow citron at hot temperature 27 to 32°C.</td>
</tr>
<tr>
<td>dwarfing factor viroid</td>
<td>Country freedom OR SPAGE and PCR on graft inoculated citron extract. Grow citron at hot temperature 27 to 32°C.</td>
</tr>
<tr>
<td>xyloporosis viroid</td>
<td>Country freedom OR SPAGE and PCR on graft inoculated citron extract or mandarin (Parson’s Special). Grow Citron at hot temperature 27 to 32°C.</td>
</tr>
<tr>
<td><strong>Disease of unknown aetiology</strong></td>
<td></td>
</tr>
<tr>
<td>Australian citrus dieback</td>
<td>Country freedom OR other suitable test</td>
</tr>
<tr>
<td>blind pocket</td>
<td>Country freedom OR graft inoculated dweet tangor, sweet orange or Citrus excelsa. Grow indicators at cool temperatures 18 to 25°C.</td>
</tr>
<tr>
<td>bud union disease</td>
<td>Country freedom OR other suitable test</td>
</tr>
<tr>
<td>citrus blight disease</td>
<td>None (cuttings collected from blight free area). Inspect source tree after 2 years before releasing from quarantine.</td>
</tr>
<tr>
<td>citrus fatal yellows</td>
<td>Country freedom OR graft inoculated Citrus macrophylla.</td>
</tr>
<tr>
<td>citrus impietratura disease</td>
<td>Country freedom OR graft inoculated dweet tangor or sweet orange. Growth indicators at cool temperatures 18 to 25°C.</td>
</tr>
<tr>
<td>citrus sunken vein disease</td>
<td>Country freedom OR other suitable test.</td>
</tr>
<tr>
<td>concave gum</td>
<td>Country freedom OR graft inoculated dweet tangor, sweet orange or Citrus excelsa. Grow indicators at cool temperatures 18 to 25°C.</td>
</tr>
<tr>
<td>cristacortis</td>
<td>Country freedom OR graft inoculated dweet tangor, sweet orange or Citrus excelsa. Grow indicators at cool temperatures 18 to 25°C.</td>
</tr>
<tr>
<td>gum pocket</td>
<td>Country freedom OR graft inoculated dweet tangor, sweet orange or Citrus excelsa. Grow indicators at cool temperatures 18 to 25°C.</td>
</tr>
<tr>
<td>gummy bark</td>
<td>Country freedom OR SPAGE of graft inoculated citron extract. Grow citron at hot temperature 27 to 32°C.</td>
</tr>
<tr>
<td>kassala disease</td>
<td>Country freedom, cuttings collected from kassala free area.</td>
</tr>
<tr>
<td>lemon sieve tube necrosis</td>
<td>Country freedom OR other suitable test.</td>
</tr>
<tr>
<td>shell bark of lemons</td>
<td>Country freedom OR other suitable test.</td>
</tr>
<tr>
<td>zonate chlorosis</td>
<td>Country freedom, cuttings collected from kassala free area.</td>
</tr>
<tr>
<td><strong>Phytoplasma</strong></td>
<td></td>
</tr>
<tr>
<td><em>Candidatus</em> phytoplasma aurantifolia</td>
<td>Country freedom OR graft inoculated lime. Grow indicators at cool temperatures 18 to 25°C.</td>
</tr>
<tr>
<td>rubbery wood</td>
<td>Country freedom OR graft inoculated sweet orange or lemon. Grow citron at hot temperature 27 to 32°C.</td>
</tr>
</tbody>
</table>

* Country freedom is accepted as equivalence to a treatment.

**Notes:**
1. The unit for testing is an individual plantlet or cutting. Each single plantlet and cutting must be labelled individually and tested separately.
2. With prior notification, MAF will accept other internationally recognised testing methods.
**Clivia**

**Note:** The entry conditions in this schedule only apply to species in the Plants Biosecurity Index listed under Import Specifications for Nursery Stock as “see 155.02.06 under Clivia”, and are additional to those specified in sections 1, 2 and 3 of the import health standard.

**GENERAL CONDITIONS:**

**Countries:** All

**Quarantine Pests:** Virus diseases

**Entry Conditions:** Basic; with variations and additional conditions as specified below:

**A. For Whole Plants:**
PEQ: Level 2
Minimum Period: 6 months

**B. For Tissue Cultures:**
As for Standard Entry Conditions for Tissue Cultures - see Section 2.2.2.

PLUS:
**Additional Declaration:**
"The cultures have been derived from parent stock tested and found free of virus diseases."
Convallaria

Note: The entry conditions in this schedule only apply to species in the Plants Biosecurity Index listed under Import Specifications for Nursery Stock as “see 155.02.06 under Convallaria”, and are additional to those specified in sections 1, 2 and 3 of the import health standard.

GENERAL CONDITIONS:

Countries: All

Quarantine Pests: Pratylenchus convallariae

Entry Conditions: Basic; with variations and additional conditions as specified below:

    PEQ: Level 2
    Minimum Period: 3 months

Additional Declaration:

"Pratylenchus convallariae is not known to occur in _____ (the country or state where the plants were grown) ______".
**Corylus**

**Note:** The entry conditions in this schedule only apply to species in the Plants Biosecurity Index listed under Import Specifications for Nursery Stock as “see 155.02.06 under Corylus”, and are additional to those specified in sections 1, 2 and 3 of the import health standard.

**GENERAL CONDITIONS:**

**Countries:** All

**Quarantine Pests:** *Anisogramma anomala; Monilinia fructigena; Xanthomonas campestris pv. corylina; Phytophthora ramorum*

**Entry Conditions:** Basic; with variations and additional conditions as specified below:

**For Whole Plants and Tissue Culture:**

- **PEQ:** Level 3
- **Minimum Period:** 3 months
Cotoneaster

Note: The entry conditions in this schedule only apply to species in the Plants Biosecurity Index listed under Import Specifications for Nursery Stock as “see 155.02.06 under Cotoneaster”, and are additional to those specified in sections 1, 2 and 3 of the import health standard.

GENERAL CONDITIONS:

Countries: All

Quarantine Pests: Gymnosporangium spp.; Xylella fastidiosa

Entry Conditions: Basic; with variations and additional conditions as specified below:

A. For Cuttings and Whole Plants from All Countries except Argentina, Belize, the Caribbean Islands, Costa Rica, El Salvador, Guatemala, Honduras, Mexico, Nicaragua, Panama, Peru, United States of America, Venezuela and Yugoslavia:

PEQ: Level 2

Minimum Period: 3 months

Additional Declarations:

1. "Gymnosporangium spp. are not known to occur on _____ (name of plant species) _____ in _____ (the country or state where the plants were produced) _____".

OR

"The plants were from a crop inspected during the growing season and no rust diseases were detected".

2. "The plants have been dipped in propiconazole at the rate of 0.5g a.i. per litre of water, prior to export".

3. "The plants have been sourced from a “Pest free area”, free from Xylella fastidiosa".

B. For Plants in Tissue Culture from All Countries:

As for Standard Entry Conditions for Tissue cultures - see Section 2.2.2.
Crataegus

Note: The entry conditions in this schedule only apply to species in the Plants Biosecurity Index listed under Import Specifications for Nursery Stock as “see 155.02.06 under Crataegus”, and are additional to those specified in sections 1, 2 and 3 of the import health standard.

GENERAL CONDITIONS:

Countries: Austria, Belgium, Canada, Denmark, Finland, France, Germany, Greece, Hungary, Ireland, Italy, Luxembourg, The Netherlands, Norway, Portugal, Spain, Sweden, Switzerland, United Kingdom, USA.

Quarantine Pests: Gymnosporangium clavipes, Gymnosporangium globosum

Entry Conditions: Basic; with variations and additional conditions as specified below:

A. For Whole Plants:

Option 1

PEQ: Level 2
Minimum Period: 6 months

Additional Declarations:

1. "Gymnosporangium clavipes and Gymnosporangium globosum are not known to occur on _______(host species being imported) _______ in _______ (the country or state in which the plants were grown) _______".

2. "The plants have been dipped in propiconazole at the rate of 0.5g a.i. per litre of water, prior to export".

OPTION 2:

PEQ: Level 3
Minimum Period: 3 months

B. For Tissue Cultures:

As for Standard Entry Conditions for Tissue Cultures - see Section 2.2.2, but subject to examination at a MAF-registered laboratory at the importers expense, prior to release to the importer.
**Note:** The entry conditions in this schedule only apply to species in the Plants Biosecurity Index listed under Import Specifications for Nursery Stock as “see 155.02.06 under *Crocosmia*”, and are additional to those specified in sections 1, 2 and 3 of the import health standard.

**GENERAL CONDITIONS:**

**Countries:** All

**Quarantine Pests:** *Frankliniella occidentalis*; virus diseases

**Entry Conditions:** Basic; with variations and additional conditions as specified below:

A. For Whole Plants:
   **PEQ:** Level 2  
   **Minimum Period:** 6 months

B. For Dormant Bulbs from Australia, Austria, Belgium, Canada, Denmark, Finland, France, Germany, Greece, Ireland, Israel, Italy, Luxembourg, The Netherlands, Portugal, South Africa, Spain, Sweden, United Kingdom, USA:

   **OPTION 1:**
   No import permit is required.
   **PEQ:** None
   **Additional Declaration(s):**
   “In addition to inspection of dormant bulbs prior to shipment, the crop from which the bulbs were derived was inspected during the growing season according to appropriate procedures, and considered free of quarantine pests, and practically free from other injurious pests.”

   **OPTION 2:**
   **PEQ:** Level 1  
   **Minimum Period:** 3 months

C. For Dormant Bulbs from Countries other than Australia, Austria, Belgium, Canada, Denmark, Finland, France, Germany, Greece, Ireland, Israel, Italy, Luxembourg, The Netherlands, Portugal, South Africa, Spain, Sweden, United Kingdom, USA:

   **OPTION 1:**
   **PEQ:** Level 1  
   **Minimum Period:** 3 months
   **Additional Declaration(s):**
   "The dormant bulbs in this consignment have been:
   - derived from a crop which was inspected during the growing season according to appropriate procedures and found to be free of regulated pests.
   AND
   - treated for regulated insects as described in section 2.2.1.7 of the basic conditions within 7 days prior to freezing, cold-storage or shipment."
OPTION 2:
PEQ: Level 2
Minimum Period: 3 months

D. For Tissue Cultures:
As for Standard Entry Conditions for Tissue Cultures - see Section 2.2.2.
PLUS:
Additional Declaration:
"The cultures have been derived from parent stock tested and found free of virus diseases."
**Crocus**

**Note:** The entry conditions in this schedule only apply to species in the Plants Biosecurity Index listed under Import Specifications for Nursery Stock as “see 155.02.06 under _Crocus_”, and are additional to those specified in sections 1, 2 and 3 of the import health standard.

**GENERAL CONDITIONS:**

**Countries:** All

**Quarantine Pests:** *Frankliniella occidentalis*; virus diseases

**Entry Conditions:** Basic; with variations and additional conditions as specified below:

**A. For Whole Plants:**
- **PEQ:** Level 2
- **Minimum Period:** 6 months

**B. For Dormant Bulbs from Australia, Austria, Belgium, Canada, Denmark, Finland, France, Germany, Greece, Ireland, Israel, Italy, Luxembourg, The Netherlands, Portugal, South Africa, Spain, Sweden, United Kingdom, USA:**

**OPTION 1:**
- No import permit is required.
- **PEQ:** None
- **Additional Declaration(s):**
  1) For bulbs produced under a MAF-approved Dutch bulb propagation scheme:
  "In addition to inspection of the dormant bulbs prior to shipment, the imported bulbs meet the requirements of the BKD Class 1 or ALG [choose one] bulb certification scheme."
  OR
  2) For bulbs NOT produced under a MAF-approved bulb propagation scheme:
  "In addition to inspection of dormant bulbs prior to shipment, the crop from which the bulbs were derived was inspected during the growing season according to appropriate procedures, and considered free of quarantine pests, and practically free from other injurious pests."

**OPTION 2:**
- **PEQ:** Level 1
- **Minimum Period:** 3 months
C. For Dormant Bulbs from Countries other than Australia, Austria, Belgium, Canada, Denmark, Finland, France, Germany, Greece, Ireland, Israel, Italy, Luxembourg, The Netherlands, Portugal, South Africa, Spain, Sweden, United Kingdom, USA:

OPTION 1:
PEQ: Level 1
Minimum Period: 3 months
Additional Declaration(s):
"The dormant bulbs in this consignment have been:
- derived from a crop which was inspected during the growing season according to appropriate procedures and found to be free of regulated pests.
AND
- treated for regulated insects as described in section 2.2.1.7 of the basic conditions within 7 days prior to freezing, cold-storage or shipment."

OPTION 2:
PEQ: Level 2
Minimum Period: 3 months

D. For Tissue Cultures:
As for Standard Entry Conditions for Tissue Cultures - see Section 2.2.2.
PLUS:
Additional Declaration:
"The cultures have been derived from parent stock tested and found free of virus diseases."
Note: The entry conditions in this schedule only apply to species in the Plants Biosecurity Index listed under Import Specifications for Nursery Stock as “see 155.02.06 under Cycas”, and are additional to those specified in sections 1, 2 and 3 of the import health standard.

**GENERAL CONDITIONS:**

**Countries:** All except Australia, Cayman Islands, China, Guam, Italy, Puerto Rico, Singapore, Taiwan, Thailand, U.S. Virgin Islands and the USA (Florida and Hawaii).

**Quarantine Pests:** *Aulacaspis yasumatsui, Demyrsus meleoides.*

**Entry Conditions:** Basic; with variations and additional conditions as specified below:

**A. For Cuttings (dormant), including offsets in the form of dormant buds divided from the trunk:**

**PEQ:** Level 2  
**Minimum Period:** 6 months  
**Inspection Requirements:** A minimum of 600 plants are to be inspected during each inspection in post-entry quarantine  
**Additional Declaration:** "The nursery stock has been sourced from a “Pest free area”, free from *Aulacaspis yasumatsui*"

**B. For Plants in Tissue Culture:**

As for **Standard Entry Conditions for Tissue Cultures** - see Section 2.2.2.
**Dahlia**

**Note:** The entry conditions in this schedule only apply to species in the Plants Biosecurity Index listed under Import Specifications for Nursery Stock as “see 155.02.06 under *Dahlia*”, and are additional to those specified in sections 1, 2 and 3 of the import health standard.

**GENERAL CONDITIONS:**

Countries: All

**Quarantine Pests:** *Phymatotrichopsis omnivora; Tetranychus kanzawai; Uredinales*

**Entry Conditions:** Basic; with variations and additional conditions as specified below:

**A. For Whole Plants**

PEQ: Level 2

Minimum Period: 3 months

**Additional Declarations:**

1. "Rust diseases are not known to occur on *Dahlia* in ___ (the country in which the plants were grown) ___".

2. "The plants have been dipped prior to export in dicofol at the rate of 0.7g a.i. per litre of water".

**B. For Dormant Bulbs from Australia, Austria, Belgium, Canada, Denmark, Finland, France, Germany, Greece, Ireland, Israel, Italy, Luxembourg, The Netherlands, Portugal, South Africa, Spain, Sweden, United Kingdom:**

**OPTION 1:**

No import permit is required.

PEQ: None

**Additional Declaration(s):**

1) For bulbs produced under a MAF-approved Dutch bulb propagation scheme:

"In addition to inspection of the dormant bulbs prior to shipment, the imported bulbs meet the requirements of the BKD Class 1 or ALG [choose one] bulb certification scheme."

OR

2) For bulbs NOT produced under a MAF-approved bulb propagation scheme:

"In addition to inspection of dormant bulbs prior to shipment, the crop from which the bulbs were derived was inspected during the growing season according to appropriate procedures, and considered free of quarantine pests, and practically free from other injurious pests."

**OPTION 2:**

PEQ: Level 1

Minimum Period: 3 months

**C. For Dormant Bulbs from the USA:**

No import permit is required unless the bulbs require post-entry quarantine.

PEQ: None or Level 2 (see below)

**Additional Declaration(s):**

1. "In addition to inspection of dormant bulbs prior to shipment, the crop from which the bulbs were derived was inspected during the growing season according to appropriate procedures, and considered free of quarantine pests, and practically free from other injurious pests."
procedures, and considered free of quarantine pests, and practically free from other injurious pests”.
2. "The dormant tubers have been sourced from a “Pest free area”, free from *Phymatotrichopsis omnivora*.

OR

(i) "The dormant bulbs have been sourced from a “Pest free place of production”, free from *Phymatotrichopsis omnivora*.

AND

(ii) the consignment must be treated for fungi as described in Section 2.2.1.7 “Pesticide treatments for dormant bulbs”. If satisfied that the pre-shipment activities have been undertaken, the exporting country NPPO must confirm this by recording the treatments applied in the “Disinfestation and/or Disinfection Treatment” section of the phytosanitary certificate.

AND

(iii) Post-entry quarantine: Upon arrival in New Zealand the dormant bulbs will require a period of at least 3 months in Level 2 post-entry quarantine.

D. For Dormant Bulbs from Countries other than Australia, Austria, Belgium, Canada, Denmark, Finland, France, Germany, Greece, Ireland, Israel, Italy, Luxembourg, The Netherlands, Portugal, South Africa, Spain, Sweden, United Kingdom, USA:

PEQ: Level 1 or Level 2 (see below)

Minimum Period: 3 months

Additional Declaration(s):

1. "The dormant bulbs in this consignment have been:
   - derived from a crop which was inspected during the growing season according to appropriate procedures and found to be free of regulated pests.

   AND

   - treated for regulated insects as described in section 2.2.1.7 of the basic conditions within 7 days prior to freezing, cold-storage or shipment.”

2. "The dormant tubers have been sourced from a “Pest free area”, free from *Phymatotrichopsis omnivora*.

OR

(i) "The dormant bulbs have been sourced from a “Pest free place of production”, free from *Phymatotrichopsis omnivora*.

AND

(ii) the consignment must be treated for fungi as described in Section 2.2.1.7 “Pesticide treatments for dormant bulbs”. If satisfied that the pre-shipment activities have been undertaken, the exporting country NPPO must confirm this by recording the treatments applied in the “Disinfestation and/or Disinfection Treatment” section of the phytosanitary certificate.

AND

(iii) Post-entry quarantine: Upon arrival in New Zealand the dormant bulbs will require a period of at least 3 months in Level 2 post-entry quarantine.

E. For Tissue Cultures:

As for **Standard Entry Conditions for Tissue Cultures** - see Section 2.2.2.

PLUS:

**Additional Declaration:**

"The cultures have been derived from parent stock tested and found free of virus diseases.”
Note: The entry conditions in this schedule only apply to species in the Plants Biosecurity Index listed under Import Specifications for Nursery Stock as “see 155.02.06 under Delphinium”, and are additional to those specified in sections 1, 2 and 3 of the import health standard.

**GENERAL CONDITIONS:**

**Countries:** Australia, Austria, Belgium, Canada, Denmark, Finland, France, Germany, Greece, Ireland, Israel, Italy, Luxembourg, The Netherlands, Portugal, Spain, Sweden, United Kingdom, USA.

**Quarantine Pests:** Uredinales

**Entry Conditions:** Basic; with variations and additional conditions as specified below:

**A. For Whole Plants**
PEQ: Level 2
Minimum Period: 3 months
Additional Declaration:
"Rust diseases of genus Coleosporium and Cronatium are not known to occur on _____ (the host species being imported)____ in _____ (the country in which the plants were grown) ______".

**B. For Tissue Cultures:**
As for Standard Entry Conditions for Tissue Cultures - see Section 2.2.2.
Dianthus

Note: The entry conditions in this schedule only apply to species in the Plants Biosecurity Index listed under Import Specifications for Nursery Stock as “see 155.02.06 under Dianthus”, and are additional to those specified in sections 1, 2 and 3 of the import health standard.

GENERAL CONDITIONS:

Countries: All

Quarantine Pests: Frankliniella occidentalis, Liriomyza spp., Uredinales

Entry Conditions: Basic; with variations and additional conditions as specified below:

A. For Whole Plants:
PEQ: Level 2
Minimum Period: 3 months
Additional Declaration:
1. "The plants have been inspected in accordance with appropriate official procedures and found to be free of Frankliniella occidentalis and Liriomyza spp."
2. "The plants were inspected during the growing season and no rust diseases were found"

B. For Tissue Cultures:
As for Standard Entry Conditions for Tissue Cultures - see Section 2.2.2.
Dianthus caryophyllus

Note: The entry conditions in this schedule only apply to species in the Plants Biosecurity Index listed under Import Specifications for Nursery Stock as “see 155.02.06 under Dianthus caryophyllus”, and are additional to those specified in sections 1, 2 and 3 of the import health standard.

GENERAL CONDITIONS:

Countries: All

Quarantine Pests: Frankliniella occidentalis, Liriomyza spp.

Entry Conditions: Basic; with variations and additional conditions as specified below.

A. For Whole Plants:

OPTION 1:
PEQ: Level 2
Minimum Period: 3 months
Additional Declaration:
"The plants have been inspected in accordance with appropriate official procedures and found to be free of Frankliniella occidentalis and Liriomyza spp."

OPTION 2: (For Netherlands only)
PEQ: Level 2
Minimum Period: 4 weeks
Additional Declarations:
1. "The imported plants meet the requirements of the NAKtuinbouw Elite (Class SEE or EE) [choose one] certification scheme."
2. "The plants have been held at 1.5°C ± 0.5°C for 2 days, then fumigated with methyl bromide at 14g/m³ for 4 hours at 15°C and packed so that re-infestation with insects cannot occur."

B. For Tissue Cultures:
As for Standard Entry Conditions for Tissue Cultures - see Section 2.2.2.
**Dioscorea**

**Note:** The entry conditions in this schedule only apply to species in the Plants Biosecurity Index listed under Import Specifications for Nursery Stock as “see 155.02.06 under *Dioscorea*”, and are additional to those specified in sections 1, 2 and 3 of the import health standard.

**GENERAL CONDITIONS:**

**Countries:** All

**Quarantine Pests:** *Phymatotrichopsis omnivora*; Virus diseases

**Entry Conditions:** Basic; with variations and additional conditions as specified below:

A. For Whole Plants:
   - **PEQ:** Level 2
   - **Minimum Period:** 6 months

B. For Dormant Bulbs from Australia, Austria, Belgium, Canada, Denmark, Finland, France, Germany, Greece, Ireland, Israel, Italy, Luxembourg, The Netherlands, Portugal, South Africa, Spain, Sweden, United Kingdom:
   - **OPTION 1:** No import permit is required.
     - **PEQ:** None
     - **Additional Declaration(s):**
       - “In addition to inspection of dormant bulbs prior to shipment, the crop from which the bulbs were derived was inspected during the growing season according to appropriate procedures, and considered free of quarantine pests, and practically free from other injurious pests.”
   - **OPTION 2:**
     - **PEQ:** Level 1
     - **Minimum Period:** 3 months

C. For Dormant Bulbs from the USA:
   - **No import permit is required unless the bulbs require post-entry quarantine.**
   - **PEQ:** None or Level 2 (see below)
   - **Additional Declaration(s):**
     1. "In addition to inspection of dormant bulbs prior to shipment, the crop from which the bulbs were derived was inspected during the growing season according to appropriate procedures, and considered free of quarantine pests, and practically free from other injurious pests”.
     2. "The dormant tubers have been sourced from a “Pest free area”, free from *Phymatotrichopsis omnivora*".
   - **OR**
     (i) "The dormant bulbs have been sourced from a “Pest free place of production”, free from *Phymatotrichopsis omnivora*".
   - **AND**
     (ii) the consignment must be treated for fungi as described in Section 2.2.1.7 “Pesticide treatments for dormant bulbs”. If satisfied that the pre-shipment activities have been
undertaken, the exporting country NPPO must confirm this by recording the treatments applied in the “Disinfestation and/or Disinfection Treatment” section of the phytosanitary certificate.

AND

(iii) Post-entry quarantine: Upon arrival in New Zealand the dormant bulbs will require a period of at least 3 months in Level 2 post-entry quarantine.

D. For Dormant Bulbs from Countries other than Australia, Austria, Belgium, Canada, Denmark, Finland, France, Germany, Greece, Ireland, Israel, Italy, Luxembourg, The Netherlands, Portugal, South Africa, Spain, Sweden, United Kingdom, USA:

PEQ: Level 1 or Level 2 (see below)
Minimum Period: 3 months
Additional Declaration(s):

1. "The dormant bulbs in this consignment have been:
   - derived from a crop which was inspected during the growing season according to appropriate procedures and found to be free of regulated pests.
   AND
   - treated for regulated insects as described in section 2.2.1.7 of the basic conditions within 7 days prior to freezing, cold-storage or shipment."

2. "The dormant tubers have been sourced from a “Pest free area”, free from Phymatotrichopsis omnivora”.

OR
(i) "The dormant bulbs have been sourced from a “Pest free place of production”, free from Phymatotrichopsis omnivora”.
AND
(ii) the consignment must be treated for fungi as described in Section 2.2.1.7 “Pesticide treatments for dormant bulbs”. If satisfied that the pre-shipment activities have been undertaken, the exporting country NPPO must confirm this by recording the treatments applied in the “Disinfestation and/or Disinfection Treatment” section of the phytosanitary certificate.
AND
(iii) Post-entry quarantine: Upon arrival in New Zealand the dormant bulbs will require a period of at least 3 months in Level 2 post-entry quarantine.

E. For Tissue Cultures:
As for Standard Entry Conditions for Tissue Cultures - see Section 2.2.2.
PLUS:
Additional Declaration:
"The cultures have been derived from parent stock tested and found free of virus diseases."
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*Diospyros*

**Note:** The entry conditions in this schedule only apply to species in the Plants Biosecurity Index listed under Import Specifications for Nursery Stock as “see 155.02.06 under *Diospyros*”, and are additional to those specified in sections 1, 2 and 3 of the import health standard.

**GENERAL CONDITIONS:**

**Countries:** All

**Quarantine Pests:** *Cephalosporium diospyri; Xylella fastidiosa*

**Entry Conditions:** Basic; with variations and additional conditions as specified below:

A. For Whole Plants and Tissue Culture:

**PEQ:** Level 3

**Minimum Period:** 3 months
Dracaena

Note: The entry conditions in this schedule only apply to species in the Plants Biosecurity Index listed under Import Specifications for Nursery Stock as “see 155.02.06 under Dracaena”, and are additional to those specified in sections 1, 2 and 3 of the import health standard.

GENERAL CONDITIONS:

Countries: All

Quarantine Pests: Chrysosphalus aonidum and Xyleborus spp. (except Xyleborus compressus, Xyleborus truncatus and Xyleborus saxeseni)

Entry Conditions: Basic; with variations and additional conditions as specified below:

A. For Cuttings and Whole Plants:
PEQ: Level 2
Minimum Period: 3 months
Inspection Requirements: A minimum of 600 plants are to be inspected during each inspection in post-entry quarantine
Additional declarations:
"The Dracaena cuttings / plants [choose one] in this consignment have been:
- sourced from a “Pest free area” or “Pest free place of production” [choose one], free from Xyleborus spp. (except Xyleborus compressus, Xyleborus truncatus and Xyleborus saxeseni).
AND
- sourced from a “Pest free area” or “Pest free place of production” [choose one], free from Chrysosphalus aonidum.
or
- inspected in accordance with appropriate official procedures and found to be free of Chrysosphalus aonidum."

Treatments:
Cuttings (dormant) must be treated for regulated insects and mites as described in section 2.2.1.6 of the basic conditions. All other material (whole plants and non-dormant cuttings) must be treated for regulated insects and mites using methyl bromide fumigation as described in section 2.2.1.6 of the basic conditions (methyl bromide may be damaging to some Dracaena species and is carried out at the importer’s risk).

B. For Plants in Tissue Culture:
As for Standard Entry Conditions for Tissue Cultures - see Section 2.2.2.
**Eriobotrya**

**Note:** The entry conditions in this schedule only apply to species in the Plants Biosecurity Index listed under Import Specifications for Nursery Stock as “see 155.02.06 under *Eriobotrya*”, and are additional to those specified in sections 1, 2 and 3 of the import health standard.

**GENERAL CONDITIONS:**

**Countries:** Australia, Austria, Belgium, Canada, Denmark, Finland, France, Germany, Greece, Hungary, Ireland, Italy, Luxembourg, The Netherlands, Norway, Portugal, Spain, Sweden, Switzerland, United Kingdom, USA.

**Quarantine Pests:** *Pseudomonas syringae pv. eriobotryae*

**Entry Conditions:** Basic; with variations and additional conditions as specified below:

A. **For Whole Plants:**

- **PEQ:** Level 2
- **Minimum Period:** 6 months

**Additional Declaration:**

"*Pseudomonas syringae pv. eriobotryae* is not known to occur in _____ (the country or state where the plants were grown) _____."

**OR**

"The plants were from a nursery that has been inspected for the presence of *Pseudomonas syringae pv. eriobotryae* and none has been detected".

B. **For Tissue Cultures:**

As for **Standard Entry Conditions for Tissue Cultures** - see Section 2.2.2.
Eucalyptus

Note: The entry conditions in this schedule only apply to species in the Plants Biosecurity Index listed under Import Specifications for Nursery Stock as “see 155.02.06 under Eucalyptus”, and are additional to those specified in sections 1, 2 and 3 of the import health standard.

GENERAL CONDITIONS:

Countries: All

Quarantine Pests: *Puccinia psidii; Endothia havanensis; Mycosphaerella parva.*

Entry Conditions: Basic; with variations and additional conditions as specified below:

A. For Whole Plants:

PEQ: Level 3
Minimum Period: 6 months

B. For Tissue Cultures:

As for Standard Entry Conditions for Tissue Cultures - see Section 2.2.2, but subject to examination at a MAF-registered laboratory at the importers expense, prior to release to the importer.
**Eugenia**

**Note:** The entry conditions in this schedule only apply to species in the Plants Biosecurity Index listed under Import Specifications for Nursery Stock as “see 155.02.06 under *Eugenia*”, and are additional to those specified in sections 1, 2 and 3 of the import health standard.

**GENERAL CONDITIONS:**

**Countries:** Australia, Austria, Belgium, Denmark, Finland, France, Germany, Greece, Hungary, Ireland, Israel, Italy, Luxembourg, Norway, The Netherlands, Portugal, Spain, Sweden, Switzerland, United Kingdom.

**Quarantine Pests:** *Puccinia psidii, Xylella fastidiosa*

**Entry Conditions:** Basic; with variations and additional conditions as specified below:

A. **For Whole Plants:**

PEQ: Level 2

Minimum Period: 6 months

Additional Declaration(s):

1. "*Puccinia psidii* is not known to occur in _____ (the country or state of origin) _____".
2. "The plants have been sourced from a “Pest free area”, free from *Xylella fastidiosa*".

B. **For Tissue Cultures:**

As for **Standard Entry Conditions for Tissue Cultures** - see Section 2.2.2.
Eupatorium

Note: The entry conditions in this schedule only apply to species in the Plants Biosecurity Index listed under Import Specifications for Nursery Stock as “see 155.02.06 under Eupatorium”, and are additional to those specified in sections 1, 2 and 3 of the import health standard.

GENERAL CONDITIONS:

Countries: Australia, Austria, Belgium, Canada, Denmark, Finland, France, Germany, Greece, Ireland, Israel, Italy, Luxembourg, The Netherlands, Portugal, Spain, Sweden, United Kingdom.

Quarantine Pests: Uredinales; Xylella fastidiosa

Entry Conditions: Basic; with variations and additional conditions as specified below:

A. For Whole Plants
PEQ: Level 2
Minimum Period: 3 months
Additional Declaration(s):
1. "Rust diseases of genus Coleosporium and Cronatium are not known to occur on _____ (the host species being imported) in _____ (the country in which the plants were grown) _____".
2. "The plants have been sourced from a “Pest free area”, free from Xylella fastidiosa".

B. For Tissue Cultures:
As for Standard Entry Conditions for Tissue Cultures - see Section 2.2.2.
**Eutrema**

**Note:** The entry conditions in this schedule only apply to species in the Plants Biosecurity Index listed under Import Specifications for Nursery Stock as “see 155.02.06 under *Eutrema*”, and are additional to those specified in sections 1, 2 and 3 of the import health standard.

**GENERAL CONDITIONS:**

**Countries:** Japan

**Quarantine Pests:** *Ascochyta brassicae; Athalia spp.; Eurydema spp.; Peronospora alliariae; Septoria wasabiae*

**Entry Conditions:** Basic; with variations and additional conditions as specified below:

**A. For Nursery Stock excluding Tissue Cultures:**

- **PEQ:** Level 2
- **Minimum Period:** 3 months

**Additional Declaration:**

"Plants have been dipped in captan at the rate of 1.25g a.i. per litre of water within 1 week of export".

**Special Condition:**

On arrival in New Zealand the plants are to be treated, under the supervision of an Inspector, at a MAF-registered transitional facility by dipping in metalaxyl or furalaxyl at the rate of 1.2g a.i. per litre of water.

**B. For Tissue cultures:**

As for **Standard Entry Conditions for Tissue Cultures** - see Section 2.2.2.
**Fagus**

**Note:** The entry conditions in this schedule only apply to species in the Plants Biosecurity Index listed under Import Specifications for Nursery Stock as “see 155.02.06 under *Fagus*”, and are additional to those specified in sections 1, 2 and 3 of the import health standard.

**GENERAL CONDITIONS:**

**Countries:** Austria, Belgium, Canada, Denmark, Finland, France, Germany, Greece, Hungary, Ireland, Italy, Luxembourg, The Netherlands, Norway, Portugal, Spain, Sweden, Switzerland, United Kingdom, USA.

**Quarantine Pests:** *Cronartium quercuum; Phytopthora ramorum; Tortricidae*

**Entry Conditions:** **Basic;** with variations and additional conditions as specified below:

A. For Cuttings (dormant) and Whole Plants (dormant) from:

a) Canada:
- **PEQ:** Level 2
- **Minimum Period:** 6 months
- **Additional Declaration(s):**
  1. "The plants have been dipped in propiconazole at the rate of 0.5g a.i. per litre of water."
  2. "The plants have been sourced from a “Pest free area”, free from *Phytophthora ramorum*".

OR
- **PEQ:** Level 3
- **Minimum Period:** 6 months

b) Austria, Belgium, Denmark, Finland, France, Germany, Greece, Hungary, Ireland, Italy, Luxembourg, The Netherlands, Norway, Portugal, Spain, Sweden, Switzerland, United Kingdom, USA:
- **PEQ:** Level 3
- **Minimum Period:** 6 months

B. For Tissue Cultures:

As for **Standard Entry Conditions for Tissue Cultures** - see Section 2.2.2.
Fagus sylvatica

Note: The entry conditions in this schedule only apply to species in the Plants Biosecurity Index listed under Import Specifications for Nursery Stock as “see 155.02.06 under Fagus sylvatica”, and are additional to those specified in sections 1, 2 and 3 of the import health standard.

GENERAL CONDITIONS:

Countries: Austria, Belgium, Canada, Denmark, Finland, France, Germany, Greece, Hungary, Ireland, Italy, Luxembourg, The Netherlands, Norway, Portugal, Spain, Sweden, Switzerland, United Kingdom, USA.

Quarantine Pests: Cronartium quercuum; Cryphonectria parasitica; Phytophthora ramorum; Tortricidae

Entry Conditions: Basic; with variations and additional conditions as specified below:

A. For Cuttings (dormant) and Whole Plants (dormant) from:
   a) Canada:
      PEQ: Level 2
      Minimum Period: 6 months
      Additional Declaration(s):
      1. "Cryphonectria parasitica is not known to occur in ______ (the country or state where the plants/cuttings) were grown ______".
         OR (for cuttings only)
         "The tree(s), from which this material was taken, was inspected during the previous growing season and no Cryphonectria parasitica was detected".
         OR (for young plants)
         "The plants were inspected during the previous growing season and no Cryphonectria parasitica was detected".
      2. "The plants have been dipped in propiconazole at the rate of 0.5g a.i. per litre of water."
      3. "The plants have been sourced from a “Pest free area”, free from Phytophthora ramorum".
         OR
         PEQ: Level 3
         Minimum Period: 6 months
   b) Austria, Belgium, Denmark, Finland, France, Germany, Greece, Hungary, Ireland, Italy, Luxembourg, The Netherlands, Norway, Portugal, Spain, Sweden, Switzerland, United Kingdom, USA:
      PEQ: Level 3
      Minimum Period: 6 months

B. For Tissue Cultures:
As for Standard Entry Conditions for Tissue Cultures - see Section 2.2.2.
Ficus

Note: The entry conditions in this schedule only apply to species in the Plants Biosecurity Index listed under Import Specifications for Nursery Stock as “see 155.02.06 under Ficus”, and are additional to those specified in sections 1, 2 and 3 of the import health standard.

GENERAL CONDITIONS:

Countries: All

Quarantine Pests: Uredo ficina

Entry Conditions: Basic; with variations and additional conditions as specified below:

For Whole Plants and Tissue Culture:

PEQ: Level 2
Minimum Period: 3 months
Additional Declaration:

"Uredo ficina is not known to occur in _____ (the country or state where the plants were grown) _____."

Note: Nursery stock of Ficus microcarpa must be free of flowers and fruit.
Fortunella

Note: The entry conditions in this schedule only apply to species in the Plants Biosecurity Index listed under Import Specifications for Nursery Stock as “see 155.02.06 under Fortunella”, and are additional to those specified in sections 1, 2 and 3 of the import health standard.

1. Type of Fortunella nursery stock approved for entry into New Zealand
   Cuttings (dormant); Plants in tissue culture

2. Pests of Fortunella
   Refer to the pest list.

3. Entry conditions for:
   3.1 Fortunella cuttings from offshore MAF-accredited facilities (quarantine stations)
   An offshore accredited facility is a facility that has been accredited to the MAF Standard PIT.OS.TRA.ACPQF to undertake phytosanitary activities. For Fortunella, the accredited facility operator must also have an agreement with MAF on the phytosanitary measures to be undertaken for Fortunella.
   (i) Documentation
      Import permit is required
      Phytosanitary certificate: a completed phytosanitary certificate issued by the exporting country national plant protection organisation (NPPO) must accompany all Fortunella cuttings exported to New Zealand.

   (ii) Inspection, Testing and Treatments of the consignment
      The inspection, testing and treatment requirements for specified regulated pests must be undertaken at the accredited facility as specified in the agreement between MAF and the accredited facility operator. Refer to Fortunella Inspection, Testing and Treatment Requirements following the Fortunella pest list.

   (iii) Phytosanitary requirements
      Before a phytosanitary certificate is to be issued, the exporting country NPPO must be satisfied that the following activities required by MAF have been undertaken.

      The Fortunella cuttings have been:
      - inspected in accordance with appropriate official procedures and found to be free of any visually detectable regulated pests specified by MAF (refer to the pest list).
      AND
      - sourced from either mother plants that have been kept in insect proof plant houses or from open ground mother plants
      AND
      - held and tested for/classified free from specified regulated pests at a MAF-accredited facility
      AND
      - held in a manner to ensure that infestation/reinfestation does not occur, following testing (and certification) at the accredited facility.

   (iv) Additional declarations to the phytosanitary certificate
      If satisfied that the pre-shipment activities have been undertaken, the exporting country
NPPO must confirm this by providing the following additional declarations to the phytosanitary certificate:

"The Fortunella cuttings in this consignment have been:
- inspected in accordance with appropriate official procedures and found to be free of any visually detectable regulated pests specified by MAF, and to conform with New Zealand’s current phytosanitary requirements.

AND
- sourced from mother plants that have been kept in insect proof plant houses/sourced from open ground mother plants [choose one].

AND
- held and tested for/classified free from specified regulated pests at the accredited facility as required in the agreement between MAF and the accredited facility operator.

AND
- held in a manner to ensure infestation/reinfestation does not occur following testing (and certification), at the accredited facility."

(v) Post-entry quarantine

PEQ:  Level 2

Quarantine Period:  This is the time required to complete inspections and/or indexing to detect regulated pathogens. Indicative minimum quarantine periods are: 6 months for Fortunella cuttings sourced from mother plants that have been kept in insect proof plant houses, or 16 months for Fortunella cuttings sourced directly from open ground mother plants. The quarantine period may be extended if material is slow growing, pests are detected, or treatments/testing are required.

3.2 Fortunella cuttings from non-accredited facilities in any country

(i) Documentation

Import permit is required

Phytosanitary certificate:  a completed phytosanitary certificate issued by the exporting country national plant protection organisation (NPPO) must accompany all Fortunella cuttings exported to New Zealand.

(ii) Phytosanitary requirements

Before a phytosanitary certificate is to be issued, the exporting country NPPO must be satisfied that the following activities required by MAF have been undertaken.

The Fortunella cuttings have been:
- inspected in accordance with appropriate official procedures and found to be free of any visually detectable regulated pests specified by MAF (refer to the pest list).

(iii) Additional declarations to the phytosanitary certificate

If satisfied that the pre-shipment activities have been undertaken, the exporting country NPPO must confirm this by providing the following additional declarations to the phytosanitary certificate:

"The Fortunella cuttings in this consignment have been:
- inspected in accordance with appropriate official procedures and found to be free of any visually detectable regulated pests specified by MAF, and to conform with
the current phytosanitary requirements of MAF."

(iv) **Inspection, Testing and Treatments of the consignment**
Following inspection at the border, upon arrival, the *Fortunella* cuttings will be directed to a facility accredited to the MAF standard BMG-STD-TREAT: *Approval of Suppliers Providing Treatment of Imported Risk Goods and Forestry/Plant Related Material for Export*, to be sprayed/dipped in MAF-approved miticide and insecticides as described in section 2.2.1.6 of the basic conditions.

Following treatment, testing for specified regulated pests must be undertaken at a New Zealand Level 3 MAF-accredited facility. Refer to *Fortunella* Inspection, Testing and Treatment Requirements following the *Fortunella* pest list.

(v) **Post-entry quarantine**

**PEQ:** Level 3

**Quarantine Period**: This is the time required to complete inspections and/or indexing to detect regulated pathogens. 16 months is an indicative minimum quarantine period. The quarantine period may be extended if material is slow growing, pests are detected, or treatments are required.

3.3 *Fortunella* plants in tissue culture from offshore MAF-accredited facilities
An offshore accredited facility is a facility that has been accredited to the MAF Standard PIT.OS.TRA.ACPQF to undertake phytosanitary activities. For *Fortunella*, the accredited facility operator must also have an agreement with MAF on the phytosanitary measures to be undertaken for *Fortunella*.

(i) **Documentation**

**Import permit is required**

**Phytosanitary certificate**: a completed phytosanitary certificate issued by the exporting country national plant protection organisation (NPPO) must accompany all *Fortunella* tissue culture exported to New Zealand.

(ii) **Pest proof container and growing media for tissue culture**
Cultures imported in a growing media must have been grown in the vessel in which they are imported. The container must be rigid, and either clear plastic or clear glass. The tissue culture media must not contain charcoal.

(iii) **Inspection, Testing and Treatments of the consignment**
The inspection, treatment and testing requirements for specified pests must be undertaken at the accredited facility as specified in the arrangement between MAF and the accredited facility operator. Refer to *Fortunella* Inspection, Testing and Treatment Requirements following the *Fortunella* pest list.

(iv) **Phytosanitary requirements**
Before a phytosanitary certificate is to be issued, the exporting country NPPO must be satisfied that the following activities required by MAF have been undertaken.

The *Fortunella* tissue culture have been:
- inspected in accordance with appropriate official procedures and found to be free of any visually detectable regulated pests specified by MAF (refer to the pest list).  
   AND
- held and tested for/classified free from specified regulated pests at a MAF-accredited facility and,
AND
- held in a manner to ensure that infestation/reinfestation does not occur, following testing (and certification) at the accredited facility.

(v) Additional declarations to the phytosanitary certificate
If satisfied that the pre-shipment activities have been undertaken, the exporting country NPPO must confirm this by providing the following additional declarations to the phytosanitary certificate:

"The *Fortunella* tissue culture in this consignment have been:
- inspected in accordance with appropriate official procedures and found to be free of any visually detectable regulated pests specified by MAF, and to conform with New Zealand’s current phytosanitary requirements.
AND
- held and tested for/classified free from specified regulated pests at the accredited facility as specified in the agreement between MAF and the accredited facility operator.
AND
- held in a manner to ensure infestation/reinfestation does not occur following testing (and certification), at the accredited facility."

(vi) Post-entry quarantine
**PEQ:**  Level 2
**Quarantine Period:** This is the time required to complete inspections and/or indexing to detect regulated pests. Six months is an indicative minimum quarantine period. The quarantine period may be extended if material is slow growing, pests are detected, or treatments are required.

3.4 *Fortunella* plants in tissue culture from non-accredited facilities in any country
(i) *Documentation*
**Import permit is required**
**Phytosanitary certificate:** a completed phytosanitary certificate issued by the exporting country national plant protection organisation (NPPO) must accompany all *Fortunella* nursery stock exported to New Zealand.

(ii) *Pest proof container and growing media for tissue culture*
Cultures imported in a growing media must have been grown in the vessel in which they are imported. The container must be rigid, and either clear plastic or clear glass. The tissue culture media must not contain charcoal.

(iii) *Phytosanitary requirements*
Before a phytosanitary certificate is to be issued, the exporting country NPPO must be satisfied that the following activities required by MAF have been undertaken.

The *Fortunella* tissue culture have been:
- inspected in accordance with appropriate official procedures and found to be free of any visually detectable regulated pests specified by MAF (refer to the pest list).
(iv) **Additional declarations to the phytosanitary certificate**
If satisfied that the pre-shipment activities have been undertaken, the exporting country NPPO must confirm this by providing the following additional declarations to the phytosanitary certificate:

"The *Fortunella* tissue culture in this consignment have been:
- inspected in accordance with appropriate official procedures and found to be free of any visually detectable regulated pests specified by MAF, and to conform with the current phytosanitary requirements of MAF."

(v) **Inspection, Testing and Treatments of the consignment**
Upon arrival, the inspection, treatment and testing requirements for specified pests must be undertaken at a New Zealand Level 3 MAF-accredited facility. Refer to *Fortunella* Inspection, Testing and Treatment Requirements following the *Fortunella* pest list.

(vi) **Post-entry quarantine**
**PEQ:** Level 3  
**Quarantine Period:** This is the time required to complete inspections and or indexing to detect regulated pests. 16 months is an indicative minimum quarantine period. The quarantine period may be extended if material is slow growing, pests are detected or treatments required.
### Pest List for *Fortunella*

#### REGULATED PESTS (actionable)

<table>
<thead>
<tr>
<th>Insect</th>
<th>Family</th>
<th>Species</th>
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<tr>
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<td>Bostrichidae</td>
<td>shot-hole borer</td>
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<td><em>Apate terebrans</em></td>
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<td>flatheaded citrus borer</td>
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<td><em>Agrilus auriventris</em></td>
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<td>citrus flatheaded borer</td>
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<tr>
<td><strong>Cerambycidae</strong></td>
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<tr>
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<td>Aleurolobus marlatti</td>
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Aleuroplatus sp. whitefly
Aleurothrixus floccosus woolly whitefly
Aleurotuberculus aucubae aucuba whitefly
Bemisia citricola citrus whitefly
Dialeurodes citri cloudywinged whitefly
Dialeurodes citrifolii -
Dialeurolonga sp. -
Parabemisia myricae Japanese bayberry whitefly
Siphoninus phillyreae phillyrea whitefly

Aphididae
Aphis fabae bean aphid
Aulacorthum magnoliae Japanese elder aphid

Cicadellidae
Asymmetrasca decedens leafhopper
Citulifer opacipennis -
Citulifer tenellus beet leafhopper
Cuerna costalis leafhopper
Edwardsiana flavescens leafhopper
Empoasca bodenheimeri -
Empoasca citrana green citrus leafhopper
Empoasca decipiens green leafhopper
Empoasca distinguenda -
Empoasca fabae potato leafhopper
Empoasca onukii tea green leafhopper
Homalodisca coagulata glassy-winged sharpshooter
Homalodisca lacerta -
Jacobiasca lytica cotton jassid
Neolatus haematocoeptes leafhopper
Penthoiolya bella citrus leafhopper
Scaphytopius nitidus leafhopper

Cicadidae
Cryptotympana facialis black cicada
Meimuna opalifera elongate cicada

Coccidae
Ceroplastes floridensis Florida wax scale
Ceroplastes japonicus pink wax scale
Ceroplastes rubens red wax scale
Ceroplastes rusti fig wax scale
Coccus celatus -
Coccus pseudomagnoliarum citricola scale
Coccus viridis green scale
Cribrolecanium andersoni white powdery scale
Gascardia brevicauda white waxy scale
Protopulvaria pyriformis pyriform scale
Pulvaria aethiopica soft green scale
Pulvaria aurantii citrus cottony scale
Pulvaria cellulae pulvaria scale
Saissetia citricola citrus string cottony scale
Saissetia somereni -

Dactylopiidae
Dactylopius filamentosus -
Dactylopius vastator -

Diaspididae
Aonidiella citrina yellow scale
Chrysomphalus aonidum Florida red scale
Chrysomphalus bifasciculatus brown scale
Chrysomphalus dictyospermi dictyospermum scale
Chrysomphalus pinnulifera false purple scale
Ischnaspis longirostris black thread scale
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Marietta leopardina [Animals Biosecurity] -

**Braconidae**
Apanteles aristotailae [Animals Biosecurity] -
Bioteretes longicaudatus [Animals Biosecurity] -
Pholetesor ornigis [Animals Biosecurity] -

**Encyrtidae**
Anicetus beneficus [Animals Biosecurity] -
Comperiella bifasciata [Animals Biosecurity] -
Habrolepis rouxi [Animals Biosecurity] -
Leptomastix dactylopii [Animals Biosecurity] parasitic wasp
Metaphycus helvolus [Animals Biosecurity] -
Metaphycus luteolus [Animals Biosecurity] -
Metaphycus stanleyi [Animals Biosecurity] -
Metaphycus varius [Animals Biosecurity] -
Psyllaephagus pulvinatus [Animals Biosecurity] -

**Eulophidae**
Aprostocetus ceroplastae [Animals Biosecurity] -
Elachertus fenestratus [Animals Biosecurity] -
Tamarixia radiatus [Animals Biosecurity] -

**Eupelmidae**
Anastatus biporulii [Animals Biosecurity] -

**Eurytomidae**
Bruchophagus felliis citrus gall midge

**Formicidae**
Acromyrmex octospinosus leaf-cutting ant
Anoprolepis braunsi [Animals Biosecurity] -
Anoprolepis custodiens ant
Anoprolepis steingroeveri [Animals Biosecurity] black ant
Atta cephalotes leaf-cutting ant
Atta sexdens -
Atta texana Texas leaf-cutting ant
Camponotus rufoglaucus -
Crematogaster castanea -
Crematogaster liengmei -
Crematogaster peringueyi [Animals Biosecurity] cocktail ant
Lepisiota caperensis [Animals Biosecurity] -
Myrmica natalensis -
Pheidole tenuinodis ant
Polyrhachis schistaceus ant
Solenopsis invicta [Animals Biosecurity] red imported fire ant
Tapinoma arnoldi -
Technomyrmex albipes foreli [Animals Biosecurity] -

**Mymaridae**
Chaetomyrm scarlicie [Animals Biosecurity] -
Chaetomyrm lepidum [Animals Biosecurity] -
Gonatocerus incomptus [Animals Biosecurity] -

**Platygasteridae**
Amitus hesperidum [Animals Biosecurity] -
Amitus spiniferus [Animals Biosecurity] -
Fidiobia citri [Animals Biosecurity] -

**Scelionidae**
Trissolcus oeneus [Animals Biosecurity] -
Trissolcus oenone [Animals Biosecurity] -
Trissolcus ogyges [Animals Biosecurity] -

**Signiphoridae**
Signiphora fax [Animals Biosecurity] -
Signiphora flavella [Animals Biosecurity] -
Signiphora perpauca [Animals Biosecurity] -

**Trichogrammatidae**
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### Unknown Insecta
- *Cosmophyllum pallidulum*

### Mite
#### Arachnida
#### Acarina
##### Acaridae
- *Thyreophagus entomophagus italicus* [Animals Biosecurity] -

##### Anystidae
- *Anystis agilis* [Animals Biosecurity] -

##### Eriophyidae
- *Aculops pelekassi* - eriophyid mite
- *Tegolophus australis* - brown citrus mite

##### Phytoseiidae
- *Amblyseius addoensis* [Animals Biosecurity] -
- *Amblyseius citri* [Animals Biosecurity] -
- *Amblyseius swirskii* [Animals Biosecurity] -
- *Euseius hibisci* [Animals Biosecurity] -
- *Euseius scutalis* [Animals Biosecurity] -
- *Euseius stipulatus* [Animals Biosecurity] -
- *Euseius tularensis* [Animals Biosecurity] -
- *Iphiseius degenerans* [Animals Biosecurity] - predatory mite
- *Typhlodromus athiasae* [Animals Biosecurity] -

##### Stigmaeidae
- *Agistemus africanus* [Animals Biosecurity] -
- *Agistemus tranatalensis* [Animals Biosecurity] -
- *Eryngiopus siculus* [Animals Biosecurity] -

##### Tarsenemidae
- *Tarsenemus cryptocephalus* [Animals Biosecurity] -

##### Tenui palpidae
- *Brevipalpus chilensis* - false spider mite
- *Brevipalpus lewisi* - bunch mite
- *Brevipalpus obovatus* - privet mite
- *Tenuipalpus emeticus* [Animals Biosecurity] -
- *Tuckerella ornata* -
- *Ultratenuipalpus gonianaensis* - tenuipalpid mite

##### Tetranychidae
- *Calacarus citrifolii* - clover mite
- *Eotetranychus kankitus* - tetranychid mite
- *Eotetranychus lewisi* - big beaked plum mite
- *Eotetranychus yumensis* - Yumi spider mite
- *Eutetranychus africanus* - tetranychid mite
- *Eutetranychus banksi* - Texus citrus mite
- *Eutetranychus orientalis* - pear leaf blister mite
- *Oligonychus mangiferus* - mango spider mite
- *Tetranychus kanzawai* - kanzawa mite

##### Tuckerellidae
- *Tuckerella knorri* - hawthorn spider mite

### Spider
#### Arachnida
#### Araneae
##### Clubionidae
- *Cheiracanthium mildei* [Animals Biosecurity] -

##### Theridiidae
- *Theridion sp.* [Animals Biosecurity] -

### Mollusc
#### Gastropoda
#### Stylommatophora
### Achatinidae
- *Achatina immaculata*
- *Lissachatina immaculata* - snail

### Bradybaenidae
- *Acusta despecta sieboldiana* - snail

### Subulinidae
- *Rumina decollata* - snail

### Urocyclidae
- *Urocyclus flavescens* -
- *Urocyclus kirkii* -

## Fungus

### Ascomycota
#### Diaporthales
- **Valsaceae**
  - *Diaportha rudis* (anamorph *Phomopsis rudis*) - phomopsis canker

#### Dothideales
- **Elsinoaceae**
  - *Elsinoe australis* - sweet orange scab

#### Capnodiales
- **Capnodiales**
  - *Capnodium citri* - sooty mould

#### Didymosphaeriaceae
- *Didymosphaeria sp.* --

#### Mycosphaerellaceae
- **Guignardia citricarpa** (anamorph *Phyllosticta citricarpa*) [black spot strain]
  - *Mycosphaerella citri* (anamorph *Stenella citri-grisea*) - rind blotch
  - *Mycosphaerella horii* - greasy spot

### Patellariales
#### Patellariaceae
- *Rhytidhysteron rufulum* --

### Saccharomycetales
#### Saccharomycetaceae
- *Debaryomyces hansenii* -
- *Galactomyces citri-aurantii* (anamorph *Geotrichum citri-aurantii*) - sour rot

### Basidiomycota: Basidiomycetes
#### Boletales
- **Coniophoraceae**
  - *Coniophora eremophila* - brown wood rot

### Basidiomycota: Teliomycetes
#### Septobasidiaceae
- *Septobasidium pseudopedicellatum* - felt fungus

### Mitosporic Fungi
#### Unknown Mitosporic Fungi
- *Sphaeloma fawcettii var. scabiosa* -

### Mitosporic Fungi (Coelomycetes)
#### Sphaeropsidales
- **Sphaerioidaceae**
  - *Macrophoma mantegazziana* -
  - *Phoma erratica var. mikan* --
  - *Phoma tracheiphila* - mal secco
  - *Phomopsis sp.* - rot
  - *Septoria spp.* -
  - *Sphaeropsis tumefaciens* - stem gall

### Unknown Coelomycetes
- *Aschersonia placenta* [Animals Biosecurity] --

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Biosecurity New Zealand Standard 155.02.06: Importation of Nursery Stock 1 March 2005
Gloeosporium foliicolum  
fruit rot

Mitosporic Fungi (Hyphomycetes)

Hyphomycetales

Dematiaceae

Alternaria limicola
Alternaria pellucida
Cercospora microsora
Phaeoramularia angolensis cercospora spot
Stemphylium rosarium
Ulocladium obvoideum uoladium rot

Unknown Hyphomycetes

Unknown Hyphomycetes

Aureobasidium sp.
Hirsutella thompsonii [Animals Biosecurity]
Isaria sp. [Animals Biosecurity]
Oidium tingitaninum powdery mildew
Sporobolomyces roseus
Stenella sp.

Zygomycota: Zygomycetes

Glomales

Glomaceae

Glomus etunicatum [Animals Biosecurity]

Mucorales

Syncephalastraceae

Syncephalastrum racemosum

Bacterium

Bacterium family unknown

Liberobacter africanum citrus greening bacterium
Liberobacter asiaticum citrus greening bacterium
Liberobacter sp. citrus greening bacterium
Spiroplasma citri citrus stubborn

Pseudomonadaceae

Burkholderia cepacia sour skin
Xanthomonas axonopodis pv. citri citrus canker
Xanthomonas campestris pv. aurantifolii -
Xanthomonas campestris pv. citrus melo citrus bacterial spot
Xylella fastidiosa Pierce's disease
Xylella fastidiosa pv. citri variegated chlorosis of citrus

Virus

Indian citrus mosaic badnavirus -
citrus cachexia viroid -
citrus chlorotic dwarf -
citrus infectious variegation ilarvirus -
citrus infectious variegation ilarvirus [crinkly leaf strain] -
citrus leaf rugose ilarvirus -
citrus leathery leaf virus -
citrus leprosis ilarvirus -
citrus mosaic virus -
citrus ringspot virus -
citrus tatter leaf capillovirus -
citrus tristeza closterovirus [strains not in New Zealand] -
citrus variable viroid -
citrus viroids (groups I-IV) -
citrus yellow mosaic badnavirus -
citrus yellow mottle virus -
dwarfing factor viroid -
navel orange infectious mottling virus -
satsuma dwarf nepovirus -
satsuma dwarf nepovirus [Natsudaidai dwarf strain] -
xyloporosis viroid -
yellow vein clearing of lemon -

**Phytoplasma**

*Candidatus Phytoplasma aurantifolia* witches' broom phytoplasma
rubbery wood -

**Disease of unknown aetiology**

Australian citrus dieback -
blind pocket -
bud union disease -
citrus blight disease -
citrus fatal yellows -
citrus impetritura disease -
citrus sunken vein disease -
concave gum -
cristacortis -
gum pocket -
gummy bark -
kassala disease -
lemon sieve tube necrosis -
shell bark of lemons -
zonate chlorosis -
NON-REGULATED PESTS (non-actionable)

**Insect**

**Coleoptera**

_Anthribidae_

*Araecerus fasciculatus*  
coffee bean weevil

_Cerambycidae_

*Oemona hirta*  
lemon tree borer

_Coccinellidae_

*Cryptolaemus montrouzieri*  
mealybug destroyer
*Rodolia cardinalis* [Animals Biosecurity]

_Curculionidae_

*Asynonychus cervinus*  
Fuller's rose weevil
*Listroderes obliquus*  
vegetable weevil
*Maleuterpes spinipes*  
dicky rice weevil
*Phlyctinus callosus*  
banded fruit weevil

_Scarabaeidae_

*Costelytra zealandica*  
grass grub

**Diptera**

_Cryptochaetidae_

*Cryptochaetum iceryae* [Animals Biosecurity]

_Drosophilidae_

*Drosophila melanogaster*  
vinegar fly

_Hemiptera**

_Pentatomidae_

*Nezara viridula*  
green vegetable bug

_Homoptera**

_Aleyrodidae_

*Orchamoplatus citri*  
Australian citrus whitefly

_Aphididae_

*Aphis craccivora*  
cowpea aphid
*Aphis gossypii*  
cotton aphid
*Aphis nerii*  
oleander aphid
*Aphis spiraecola*  
spirea aphid
*Macrosiphum euphorbiae*  
potato aphid
*Myzus cerasi*  
black cherry aphid
*Myzus persicae*  
green peach aphid
*Toxoptera aurantii*  
black citrus aphid
*Toxoptera citricida*  
brown citrus aphid

_Coccidae_

*Ceroplastes ceriferus*  
Indian white wax scale
*Ceroplastes destructor*  
white wax scale
*Ceroplastes sinensis*  
Chinese wax scale
*Coccus hesperidum*  
brown soft scale
*Coccus longulus*  
long brown scale
*Saissetia coffeae*  
hemispherical scale
*Saissetia oleae*  
black scale

_Diaspididae_

*Aonidiella aurantii*  
California red scale
*Aspidiotus hederae*  
oleander scale
*Aspidiotus nerii*  
oleander scale
*Diaspis santali*  
scale
*Lindingaspis rossi*  
Ross' black scale
*Lopholeucaspis japonica*  
pear white scale
*Parlatoria pergandii*  
chaff scale
*Pinnaspis aspidistrae*  
fenn scale
*Quadraspidiotus perniciosus*  
San Jose scale
Flatidae
Siphanta acuta  green planthopper

Margarodidae
Icerya purchasi  cottony cushion scale

Pseudococcidae
Planococcus citri  citrus mealybug
Planococcus mali  -
Pseudococcus calceolariae  citrophilus mealybug
Pseudococcus longispinus  longtailed mealybug
Pseudococcus viburni  obscure mealybug

Ricaniidae
Scylopya australis  passionvine hopper

Hymenoptera
Aphelinidae
Aphytis chrysomphali [Animals Biosecurity]  -
Encarsia citrina [Animals Biosecurity]  -
Encarsia perniciosi [Animals Biosecurity]  -

Encyrtidae
Coccidoctonus dubius [Animals Biosecurity]  -

Formicidae
Linepithema humile [Animals Biosecurity]  Argentine ant
Pheidole megacephala [Animals Biosecurity]  big-headed ant

Lepidoptera
Geometridae
Pseudocoremia dejectaria  -
Pseudocoremia suavis  pine looper

Heptalidae
Aenetus virescens  puriri moth

Noctuidae
Helicoverpa armigera  tomato fruitworm
Spodoptera litura  cluster caterpillar

Oecophoridae
Stathmopoda phylegrya [Animals Biosecurity]  -

Tortricidae
Cnephasia jactatana  black lyre leafroller
Ctenopseustis obliquana  brownheaded leafroller
Epiphasia axenana  -
Epiphyas postvittana  light brown apple moth
Planotortrix excessana  greenheaded leafroller

Orthoptera
Tettigoniidae
Caedicia simplex  katydid

Thysanoptera
Phlaeothripidae
Nesothrips propinquus breviceps  -

Thripidae
Frankliniella occidentalis  western flower thrips
Heliothrips haemorrhoidalis  greenhouse thrips
Pezothrips kelleyanus  Kelly's citrus thrips
Thrips hawaiiensis  Hawaiian flower thrips
Thrips obscurus  New Zealand flower thrips
Thrips tabaci  onion thrips

Mite
Arachnida
Acarina
Eriophyidae
Aceria sheldoni  citrus bud mite
Phyllocoptura oleivora  citrus rust mite
Phytoseiidae
**Phytoseiulus persimilis** [Animals Biosecurity]  
Predatory mite

**Stigmaeidae**

*Eryngiopus bifidus* [Animals Biosecurity]

**Tarsenemidae**

*Polyphagotarsonemus latus*  
Broad mite

**Tenuipalpidae**

*Brevipalpus californicus*  
Bunch mite

*Brevipalpus phoenicis*  
Passionvine mite

**Tetranychidae**

*Eotetranychus sexmaculatus*  
Sixspotted mite

*Panonychus citri*  
Citrus red mite

*Tetranychus cinnabarinus*  
Carmine spider mite

*Tetranychus urticae*  
Two-spotted spider mite

**Mollusc**

**Gastropoda**

**Stylommatophora**

**Helicidae**

*Helix aspersa*  
Common garden snail

**Limacidae**

*Deroceras reticulatum*  
Grey garden slug

**Fungus**

**Ascomycota**

**Diaporthales**

**Valsaceae**

*Diaportha citri* (anamorph *Phomopsis citri*)  
Melanose

**Diatrypales**

**Diatrypaceae**

*Eutypa lata*  
Eutypa dieback

**Dothideales**

**Botryosphaeriaceae**

*Botryosphaeria dothidea* (anamorph *Fusicoccum aesculi*)  
Canker

*Botryosphaeria rhodina*  
Gummosis

**Capnodiaceae**

*Capnodium salicinum*  
Sooty mould

**Elsinoaceae**

*Elsinoe fawcettii* (anamorph *Sphaeloma fawcettii*)  
Verrucosis

**Mycosphaerellaceae**

*Guignardia citricarpa* (anamorph *Phyllosticta citricarpa*) [non-pathogenic strain]  
Latent skin infection

*Mycosphaerella pinodes* (anamorph *Ascochyta pinodes*)  
Mycosphaerella blight

*Mycosphaerella tassiana* (anamorph *Cladosporium herbarum*)  
Black leaf spot

**Pleosporaceae**

*Pleospora herbarum* (anamorph *Stempylum herbarum*)  
Black mould rot

**Hypocreales**

**Hypocreaceae**

*Gibberella baccata* (anamorph *Fusarium lateritium*)  
Fusarium rot

*Gibberella fujikuroi* (anamorph *Fusarium fujikuroi*)  
Fusarium rot

*Gibberella intrincans* (anamorph *Fusarium equiseti*)  
Root and stem dry rot

*Nectria haematoceccca* (anamorph *Fusarium solani*)  
Fusarium fruit rot

**Leotiales**

**Sclerotiniaceae**

*Botryotinia fuckeliana* (anamorph *Botrytis cinerea*)  
Grey mould

*Sclerotinia sclerotiorum*  
Cottony rot

**Phyllachorales**

**Phyllachoraceae**

*Glomerella cingulata* (anamorph *Colletotrichum gloeosporioides*)  
Anthracnose

**Saccharomycetales**
Dipodascaceae
   *Dipodascus geotrichum* (anamorph *Geotrichum candidum*)  
   sour rot

*Endomyctaceae*
   *Endomyces geotrichum*  
   endomyces

*Xylariaceae*
   *Ustulina deusta*  
   coal fungus

**Basidiomycota: Basidiomycetes**

*Stereales*

**Hyphodermataceae**
   *Enytricum salmonicolor* (anamorph *Necator decretus*)  
   pink disease

**Mitosporic Fungi (Coelomycetes)**

*Sphaeropsidiales*

**Sphaeroidaceae**
   *Ascochyta corticola*  
   ascochyta rot
   *Lasiodiplodia theobromae*  
   fruit and stem-end rot
   *Septoria citri*  
   septoria spot

*Ustulina deusta*  
   coal fungus

**Mitosporic Fungi (Hyphomycetes)**

*Hyphomycetales*

**Dematiaceae**
   *Alternaria alternata*  
   black stalk rot
   *Alternaria citri*  
   alternaria rot
   *Alternaria hesperidearum*  
   --

**Moniliaceae**
   *Aspergillus flavus*  
   aspergillus storage rot
   *Aspergillus niger*  
   aspergillus rot
   *Penicillium digitatum*  
   green mould
   *Penicillium italicum*  
   blue mould
   *Penicillium ulaiense*  
   penicillium mould
   *Verticillium lecanii* [Animals Biosecurity]  
   --

**Tuberculariales**

**Tuberculariaceae**
   *Fusarium culmorum*  
   dry rot
   *Fusarium oxysporum*  
   leaf spot

**Unknown Hyphomycetes**

**Unknown Hyphomycetes**

*Trichothecium roseum*  
   pink rot

**Oomycota**

**Pythiales**

**Pythiaceae**
   *Phytophthora citricola*  
   brown rot of fruit
   *Phytophthora citrophthora*  
   citrus brown rot
   *Phytophthora hibernalis*  
   citrus brown rot
   *Phytophthora nicotianae var. parasitica*  
   collar and root rot

**Zygomycota: Zygomycetes**

**Mucorales**

**Mucoraceae**
   *Rhizopus stolonifer*  
   rhizopus soft rot

**Bacterium**

**Pseudomonadaceae**
   *Pseudomonas corrugata*  
   tomato pith necrosis
   *Pseudomonas fluorescens*  
   pink eye
   *Pseudomonas syringae*  
   bacterial blast
   *Pseudomonas syringae pv. syringae*  
   bacterial soft rot

**Virus**

   citrus enation - woody gall luteovirus  
   --
citrus exocortis viroid -
citrus psorosis A -
citrus psorosis B -
citrus tristeza closterovirus [seedling yellows, decline, and stem pitting strains (except Hassuku dwarf, Capao Bonito, and Queensland and South African orange stem pitting strains)] -
hop stunt viroid -
**Inspection, Testing and Treatment Requirements for *Fortunella***

<table>
<thead>
<tr>
<th>ORGANISM TYPES</th>
<th>MAF ACCEPTABLE METHODS</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Insects</strong></td>
<td>Visual inspection AND approved insecticide treatments (Refer to section 2.2.1.6 of the basic conditions).</td>
</tr>
<tr>
<td><strong>Mites</strong></td>
<td>Visual inspection AND approved miticide treatments (Refer to section 2.2.1.6 of the basic conditions).</td>
</tr>
<tr>
<td><strong>Fungus</strong></td>
<td>Country freedom OR growing season inspection for symptom expression.</td>
</tr>
<tr>
<td><strong>Bacterium</strong></td>
<td></td>
</tr>
<tr>
<td><em>Burkholderia cepacia</em></td>
<td>Growing season inspection for symptom expression.</td>
</tr>
<tr>
<td><em>Liberobacter africanum</em></td>
<td>Country freedom OR graft-inoculated sweet oranges, orange pineapple, 18 to 25°C.</td>
</tr>
<tr>
<td><em>Liberobacter asiaticum</em></td>
<td>Country freedom OR graft-inoculated sweet oranges, orange pineapple, 18 to 25°C.</td>
</tr>
<tr>
<td><em>Spiroplasma citri</em></td>
<td>Country freedom/shoot tip grafting. Graft inoculated sweet orange, 27 to 32°C. Bioassay = culture petiole new flush tissue. Collect tissue after several days at hot temperature (&gt; 30°C) and incubate cultures at 32°C.</td>
</tr>
<tr>
<td><em>Xanthomonas axonopodis pv. citri</em></td>
<td>Country freedom/shoot tip grafting bioassay/detached leaf bioassay/ PCR OR suitable citrus indicator.</td>
</tr>
<tr>
<td><em>Xanthomonas campestris pv. aurantifolii</em></td>
<td>Country freedom/shoot tip grafting bioassay/detached leaf bioassay/ PCR OR suitable citrus indicator.</td>
</tr>
<tr>
<td><em>Xanthomonas campestris pv. citrumelo</em></td>
<td>Country freedom/shoot tip grafting bioassay/detached leaf bioassay/ PCR OR suitable citrus indicator.</td>
</tr>
<tr>
<td><em>Xylella fastidiosa</em></td>
<td>Country freedom/shoot tip grafting bioassay/ PCR/ELISA OR suitable citrus indicator.</td>
</tr>
<tr>
<td><em>Xylella fastidiosa pv. citri</em></td>
<td>Country freedom/shoot tip grafting bioassay PCR/ELISA OR suitable citrus indicator.</td>
</tr>
<tr>
<td><strong>Virus</strong></td>
<td></td>
</tr>
<tr>
<td><em>citrus chlorotic dwarf</em></td>
<td>Country freedom OR graft inoculated rough lemon at cool temperatures temperatures 18 to 25°C.</td>
</tr>
<tr>
<td><em>citrus infectious variegation ilarivirus</em></td>
<td>Country freedom OR graft inoculated citron, sour orange, lemon, cidro etrog. Grow indicators at cool temperatures 18 to 25°C.</td>
</tr>
<tr>
<td><em>citrus infectious variegation ilarivirus [crinkly leaf strain]</em></td>
<td>Country freedom OR graft inoculated citron, sour orange, lemon, cidro etrog. Grow indicators at cool temperatures 18 to 25°C.</td>
</tr>
<tr>
<td><em>citrus leaf rugose ilarivirus</em></td>
<td>Country freedom OR graft inoculated Mexican lime or sour orange. Grow indicators at cool temperatures 18 to 25°C.</td>
</tr>
<tr>
<td><em>citrus leathery leaf virus</em></td>
<td>Country freedom OR Rangpur lime. Grow indicators at cool temperatures 18 to 25°C.</td>
</tr>
<tr>
<td><em>citrus leprosis rhabdovirus</em></td>
<td>Country freedom OR graft inoculated sweet orange. Grow indicators at cool temperatures 18 to 25°C.</td>
</tr>
<tr>
<td><em>citrus mosaic virus</em></td>
<td>Country freedom OR graft inoculated satsums. Grow indicators at cool temperatures 18 to 25°C.</td>
</tr>
<tr>
<td><em>citrus ringspot virus</em></td>
<td>Country freedom OR graft inoculated dweet tangor, sweet orange, mandarin (Parson’s Special). Grow indicators at cool temperatures 18 to 25°C.</td>
</tr>
<tr>
<td><em>citrus tatter leaf capillovirus</em></td>
<td>Country freedom OR graft inoculated Rusk citrange, rough lemon, <em>Citrus excelsa</em>, citrange (Troyer). Grow indicators at cool temperatures 18 to 25°C.</td>
</tr>
<tr>
<td><em>citrus tristeza closterovirus [strains not in New Zealand]</em></td>
<td>Country freedom OR ELISA, graft inoculated Mexican lime, sour orange and <em>Citrus excelsa</em>. Grow indicators at cool temperatures 18 to 25°C.</td>
</tr>
<tr>
<td><em>citrus yellow mosaic badnavirus</em></td>
<td>Country freedom OR graft inoculated sweet orange, sour orange and citron.</td>
</tr>
<tr>
<td><em>citrus yellow mottle virus</em></td>
<td>Country freedom OR other suitable test.</td>
</tr>
<tr>
<td><em>Indian citrus mosaic badnavirus</em></td>
<td>Country freedom OR graft inoculated sweet orange at hot temperature 27 to 32°C.</td>
</tr>
<tr>
<td><em>navel orange infectious mottling virus</em></td>
<td>Country freedom OR graft inoculated Satsums. Grow indicators at cool temperatures 18 to 25°C.</td>
</tr>
<tr>
<td><em>satsuma dwarf nepovirus</em></td>
<td>Country freedom OR graft inoculated satsums. Grow indicators at cool temperatures 18 to 25°C.</td>
</tr>
<tr>
<td>ORGANISM TYPES</td>
<td>MAF ACCEPTABLE METHODS</td>
</tr>
<tr>
<td>----------------</td>
<td>------------------------</td>
</tr>
<tr>
<td>satsuma dwarf nepovirus [Natsudaidai dwarf strain]</td>
<td>Country freedom OR graft inoculated satsums. Grow indicators at cool temperatures 18 to 25°C.</td>
</tr>
<tr>
<td>yellow vein clearing of lemon</td>
<td>Country freedom OR graft inoculated Mexican lime or sour orange. Grow indicators at cool temperatures 18 to 25°C.</td>
</tr>
<tr>
<td><strong>Viroid</strong></td>
<td></td>
</tr>
<tr>
<td>citrus cachexia viroid</td>
<td>Country freedom OR SPAGE and PCR on graft inoculated citron extract. Grow citron at hot temperature 27 to 32°C.</td>
</tr>
<tr>
<td>citrus variable viroid</td>
<td>Country freedom OR SPAGE and PCR on graft inoculated citron extract. Grow citron at hot temperature 27 to 32°C.</td>
</tr>
<tr>
<td>citrus viroids (groups I-IV)</td>
<td>Country freedom OR SPAGE and PCR on graft inoculated citron extract. Grow citron at hot temperature 27 to 32°C.</td>
</tr>
<tr>
<td>dwarfining factor viroid</td>
<td>Country freedom OR SPAGE and PCR on graft inoculated citron extract. Grow citron at hot temperature 27 to 32°C.</td>
</tr>
<tr>
<td>xyloporosis viroid</td>
<td>Country freedom OR SPAGE and PCR on graft inoculated citron extract or mandarin (Parson’s Special). Grow Citron at hot temperature 27 to 32°C.</td>
</tr>
<tr>
<td><strong>Disease of unknown aetiology</strong></td>
<td></td>
</tr>
<tr>
<td>Australian citrus dieback</td>
<td>Country freedom OR other suitable test</td>
</tr>
<tr>
<td>blind pocket</td>
<td>Country freedom OR graft inoculated dweet tangor, sweet orange or Citrus excelsa. Grow indicators at cool temperatures 18 to 25°C.</td>
</tr>
<tr>
<td>bud union disease</td>
<td>Country freedom OR other suitable test</td>
</tr>
<tr>
<td>citrus blight disease</td>
<td>None (cuttings collected from blight free area). Inspect source tree after 2 years before releasing from quarantine.</td>
</tr>
<tr>
<td>citrus fatal yellows</td>
<td>Country freedom OR graft inoculated Citrus macrophylla.</td>
</tr>
<tr>
<td>citrus imprietatura disease</td>
<td>Country freedom OR graft inoculated dweet tangor or sweet orange. Growth indicators at cool temperatures 18 to 25°C.</td>
</tr>
<tr>
<td>citrus sunken vein disease</td>
<td>Country freedom OR other suitable test.</td>
</tr>
<tr>
<td>concave gum</td>
<td>Country freedom OR graft inoculated dweet tangor, sweet orange or Citrus excelsa. Grow indicators at cool temperatures 18 to 25°C.</td>
</tr>
<tr>
<td>cristacortis</td>
<td>Country freedom OR graft inoculated dweet tangor, sweet orange or Citrus excelsa. Grow indicators at cool temperatures 18 to 25°C.</td>
</tr>
<tr>
<td>gum pocket</td>
<td>Country freedom OR graft inoculated dweet tangor, sweet orange or Citrus excelsa. Grow indicators at cool temperatures 18 to 25°C.</td>
</tr>
<tr>
<td>gummy bark</td>
<td>Country freedom OR SPAGE of graft inoculated citron extract. Grow citron at hot temperature 27 to 32°C.</td>
</tr>
<tr>
<td>kassala disease</td>
<td>Country freedom, cuttings collected from kassala free area.</td>
</tr>
<tr>
<td>lemon sieve tube necrosis</td>
<td>Country freedom OR other suitable test.</td>
</tr>
<tr>
<td>shell bark of lemons</td>
<td>Country freedom OR other suitable test.</td>
</tr>
<tr>
<td>zonate chlorosis</td>
<td>Country freedom, cuttings collected from kassala free area.</td>
</tr>
<tr>
<td><strong>Phytoplasma</strong></td>
<td></td>
</tr>
<tr>
<td>Candidatus phytoplasma aurantifolia</td>
<td>Country freedom OR graft inoculated lime. Grow indicators at cool temperatures 18 to 25°C.</td>
</tr>
<tr>
<td>rubbery wood</td>
<td>Country freedom OR graft inoculated sweet orange or lemon. Grow citron at hot temperature 27 to 32°C.</td>
</tr>
</tbody>
</table>

* Country freedom is accepted as equivalence to a treatment.

**Notes:**
1. The unit for testing is an individual plantlet or cutting. Each single plantlet and cutting must be labelled individually and tested separately.
2. With prior notification, MAF will accept other internationally recognised testing methods.
<table>
<thead>
<tr>
<th>Scientific name</th>
<th>Commodity Sub-class</th>
<th>Date Issued</th>
</tr>
</thead>
<tbody>
<tr>
<td><em>Fragaria x ananassa</em></td>
<td>Whole Plants</td>
<td>19 June 1998</td>
</tr>
</tbody>
</table>
**Freesia**

**Note:** The entry conditions in this schedule only apply to species in the Plants Biosecurity Index listed under Import Specifications for Nursery Stock as “see 155.02.06 under Freesia”, and are additional to those specified in sections 1, 2 and 3 of the import health standard.

**GENERAL CONDITIONS:**

**Countries:** All

**Quarantine Pests:** Virus diseases

**Entry Conditions:** Basic; with variations and additional conditions as specified below:

A. For Whole Plants:
PEQ: Level 2
Minimum Period: 6 months

B. For Dormant Bulbs from Australia, Austria, Belgium, Canada, Denmark, Finland, France, Germany, Greece, Ireland, Israel, Italy, Luxembourg, The Netherlands, Portugal, South Africa, Spain, Sweden, United Kingdom, USA:

**OPTION 1:**
No import permit is required.
PEQ: None
Additional Declaration(s):
1) For bulbs produced under a MAF-approved Dutch bulb propagation scheme:
"In addition to inspection of the dormant bulbs prior to shipment, the imported bulbs meet the requirements of the NAKtuinbouw Elite (Class SEE or EE) or Select (Class A or E) [choose one] bulb certification scheme."

**OR**
2) For bulbs NOT produced under a MAF-approved bulb propagation scheme:
"In addition to inspection of dormant bulbs prior to shipment, the crop from which the bulbs were derived was inspected during the growing season according to appropriate procedures, and considered free of quarantine pests, and practically free from other injurious pests."

**OPTION 2:**
PEQ: Level 1
Minimum Period: 3 months
C. For Dormant Bulbs from Countries other than Australia, Austria, Belgium, Canada, Denmark, Finland, France, Germany, Greece, Ireland, Israel, Italy, Luxembourg, The Netherlands, Portugal, South Africa, Spain, Sweden, United Kingdom, USA:

**OPTION 1:**
**PEQ:** Level 1  
**Minimum Period:** 3 months

**Additional Declaration(s):**
"The dormant bulbs in this consignment have been:
- derived from a crop which was inspected during the growing season according to appropriate procedures and found to be free of regulated pests.

AND
- treated for regulated insects as described in section 2.2.1.7 of the basic conditions within 7 days prior to freezing, cold-storage or shipment."

**OPTION 2:**
**PEQ:** Level 2  
**Minimum Period:** 3 months

D. For Tissue Cultures:
As for Standard Entry Conditions for Tissue Cultures - see Section 2.2.2.

**PLUS:**
**Additional Declaration:**
"The cultures have been derived from parent stock tested and found free of virus diseases."
Fuchsia

Note: The entry conditions in this schedule only apply to species in the Plants Biosecurity Index listed under Import Specifications for Nursery Stock as “see 155.02.06 under Fuchsia”, and are additional to those specified in sections 1, 2 and 3 of the import health standard.

GENERAL CONDITIONS:

Countries: All

Quarantine Pests: Aculops fuchsiae (Fuchsia Gall Mite)

Entry Conditions: Basic; with variations and additional conditions as specified below:

A. For Whole Plants or Cuttings:

PEQ: Level 2
Minimum Period: 3 months

Additional Declarations:

"Aculops fuchsiae is not known to occur in ____ (the country or state where the plants were grown) ____".

OR

"The plants have been dipped in Carbaryl at the rate of 0.5g a.i. per litre of water".

B. For Tissue Cultures:

As for Standard Entry Conditions for Tissue Cultures - see Section 2.2.2.
Gentiana

Note: The entry conditions in this schedule only apply to species in the Plants Biosecurity Index listed under Import Specifications for Nursery Stock as “see 155.02.06 under Gentiana”, and are additional to those specified in sections 1, 2 and 3 of the import health standard.

GENERAL CONDITIONS:

Countries: Japan

Quarantine Pests: Cronartium flaccidum; Tetranychus kanzawai

Entry Conditions: Basic; with variations and additional conditions as specified below:

A. For Whole Plants:

PEQ: Level 2
Minimum Period: 3 months

Additional Declarations:

1. "The plants have been dipped in oxycarboxin at 1.5g a.i. per litre of water, prior to export".

2. “The plants have been dipped prior to export in dicofol at the rate of 0.7g a.i. per litre.

B. For Tissue Cultures:

As for Standard Entry Conditions for Tissue Cultures - see Section 2.2.2.
**Gerbera**

**Note:** The entry conditions in this schedule only apply to species in the Plants Biosecurity Index listed under Import Specifications for Nursery Stock as “see 155.02.06 under *Gerbera*”, and are additional to those specified in sections 1, 2 and 3 of the import health standard.

**GENERAL CONDITIONS:**

**Countries:** All

**Quarantine Pests:** *Frankliniella occidentalis; Liriomyza spp.*

**Entry Conditions:** Basic; with variations and additional conditions as specified below:

A. **For Whole Plants:**
   - **PEQ:** Level 2
   - **Minimum Period:** 3 months
   - **Additional Declaration:** "The plants have been inspected in accordance with appropriate official procedures and found to be free of *Frankliniella occidentalis* and *Liriomyza spp.*"

B. **For Tissue Cultures:**
   As for Standard Entry Conditions for Tissue Cultures - see Section 2.2.2.
**Gladiolus**

**Note:** The entry conditions in this schedule only apply to species in the Plants Biosecurity Index listed under Import Specifications for Nursery Stock as “see 155.02.06 under *Gladiolus*”, and are additional to those specified in sections 1, 2 and 3 of the import health standard.

**GENERAL CONDITIONS:**

**Countries:** All

**Quarantine Pests:** *Puccinia gladioli*

**Entry Conditions:** Basic; with variations and additional conditions as specified below:

**A. For Whole Plants:**
- **PEQ:** Level 2
- **Minimum Period:** 6 months
- **Additional Declarations:**
  - "*Puccinia gladioli* is not known to occur in _____ (the country or state where the plants were grown) _____."
  - OR
  - "The plants were inspected during the growing season and *Puccinia gladioli* was not detected."

**B. For Dormant Bulbs (Corms) from Australia, Austria, Belgium, Canada, Denmark, Finland, France, Germany, Greece, Ireland, Israel, Italy, Luxembourg, The Netherlands, Portugal, South Africa, Spain, Sweden, United Kingdom, USA:**

**OPTION 1:**
- No import permit is required.
- **PEQ:** None
- **Cleanliness:** Bulbs (corms) must be free of leafy coverings.
- **Additional Declaration(s):**
  1) For bulbs produced under a MAF-approved Dutch bulb propagation scheme:
  - "In addition to inspection of the dormant bulbs prior to shipment, the imported bulbs meet the requirements of the BKD Class 1 or ALG [choose one] bulb certification scheme."
  - OR
  2) For bulbs NOT produced under a MAF-approved bulb propagation scheme:
  - "In addition to inspection of dormant bulbs prior to shipment, the crop from which the bulbs were derived was inspected during the growing season according to appropriate procedures, and considered free of quarantine pests, and practically free from other injurious pests."

**OPTION 2:**
- **PEQ:** Level 1
- **Minimum Period:** 3 months
- **Cleanliness:** Bulbs (corms) must be free of leafy coverings.
C. For Dormant Bulbs from Countries other than Australia, Austria, Belgium, Canada, Denmark, Finland, France, Germany, Greece, Ireland, Israel, Italy, Luxembourg, The Netherlands, Portugal, South Africa, Spain, Sweden, United Kingdom, USA:

**OPTION 1:**
PEQ: Level 1
Minimum Period: 3 months
Cleanliness: Bulbs (corms) must be free of leafy coverings.
**Additional Declaration(s):**
"The dormant bulbs in this consignment have been:
- derived from a crop which was inspected during the growing season according to appropriate procedures and found to be free of regulated pests.
AND
- treated for regulated insects as described in section 2.2.1.7 of the basic conditions within 7 days prior to freezing, cold-storage or shipment."

**OPTION 2:**
PEQ: Level 2
Minimum Period: 3 months
Cleanliness: Bulbs (corms) must be free of leafy coverings.

D. For Tissue Cultures:
As for Standard Entry Conditions for Tissue Cultures - see Section 2.2.2.
**Glycyrrhiza**

**Note:** The entry conditions in this schedule only apply to species in the Plants Biosecurity Index listed under Import Specifications for Nursery Stock as “see 155.02.06 under *Glycyrrhiza*”, and are additional to those specified in sections 1, 2 and 3 of the import health standard.

**GENERAL CONDITIONS:**

**Countries:** All

**Quarantine Pests**  *Uromyces* spp.

**Entry Conditions:** Basic; with variations and additional conditions as specified below:

**A. For Whole Plants:**

**PEQ:** Level 2  
**Minimum Period:** 3 months  
**Additional Declaration:**  
"*Uromyces* spp. are not known to occur on *Glycyrrhiza* in _____ (the country or state where the plants were grown) ______".  
**OR**  
"The plants were inspected during the growing season and no *Uromyces* spp. were detected".

**B. For Tissue Cultures:**

As for **Standard Entry Conditions for Tissue Cultures** - see Section 2.2.2.
Guzmania

**Note:** The entry conditions in this schedule only apply to species in the Plants Biosecurity Index listed under Import Specifications for Nursery Stock as “see 155.02.06 under Guzmania”, and are additional to those specified in sections 1, 2 and 3 of the import health standard.

**GENERAL CONDITIONS:**

**Countries:** All

**Entry Conditions:** Basic; with variations and additional conditions as specified below:

A. **For Cuttings and Whole Plants:**
   PEQ: Level 2
   Minimum Period: 3 months

B. **For Plants in Tissue Culture:**
   As for **Standard Entry Conditions for Tissue Cultures** - see Section 2.2.2.
Helianthus

Note: The entry conditions in this schedule only apply to species in the Plants Biosecurity Index listed under Import Specifications for Nursery Stock as “see 155.02.06 under Helianthus”, and are additional to those specified in sections 1, 2 and 3 of the import health standard.

GENERAL CONDITIONS:

Countries: All

Quarantine Pests: Alternaria helianthi; Septoria helianthi; Phymatotrichopsis omnivora; Plasmopara halstedii; Pseudomonas spp.; Uredinales

Entry Conditions: Basic; with variations and additional conditions as specified below:

For Dormant Tubers Only:

PEQ: Level 2
Minimum Period: 3 months
Additional Declaration(s):
"The dormant bulbs have been sourced from a “Pest free area”, free from Phymatotrichopsis omnivora".
OR
(i) "The dormant bulbs have been sourced from a “Pest free place of production”, free from Phymatotrichopsis omnivora".
AND
(ii) the consignment must be treated for fungi as described in Section 2.2.1.7 “Pesticide treatments for dormant bulbs”. If satisfied that the pre-shipment activities have been undertaken, the exporting country NPPO must confirm this by recording the treatments applied in the “Disinfestation and/or Disinfection Treatment” section of the phytosanitary certificate.
**Hippeastrum**

**Note:** The entry conditions in this schedule only apply to species in the Plants Biosecurity Index listed under Import Specifications for Nursery Stock as “see 155.02.06 under *Hippeastrum*”, and are additional to those specified in sections 1, 2 and 3 of the import health standard.

1. **Type of Hippeastrum nursery stock approved for entry into New Zealand**
   Dormant bulbs
   Plants in tissue culture

2. **Pests of Hippeastrum**
   Refer to the pest list.

3. **Entry conditions for:**
   3.1 **Hippeastrum dormant bulbs from any country**
      (i) **Documentation**
      **Phytosanitary certificate:** a completed phytosanitary certificate, issued by the national plant protection organisation (NPPO) of the exporting country, is required.
      **Import permit:** an import permit is required.

      (ii) **Phytosanitary requirements**
      Before a phytosanitary certificate is issued, the exporting country NPPO must be satisfied that the following activities required by the New Zealand Ministry of Agriculture and Forestry (MAF) have been undertaken.

      The *Hippeastrum* dormant bulbs have been:
      - inspected in accordance with appropriate official procedures and found to be free of any visually detectable regulated pests.
      AND
      - sourced from a “Pest free area”, “Pest free place of production” or “Pest free production site”, free from regulated nematodes and fungi OR treated for regulated nematodes and fungi as described in section 2.2.1.7 of the basic conditions within 7 days prior to freezing, cold-storage or shipment.
      AND
      - sourced from a “Pest free area”, “Pest free place of production” or “Pest free production site”, free from regulated bacteria and viruses.
      AND
      - treated for regulated mites as described in section 2.2.1.7 of the basic conditions within 7 days prior to freezing, cold-storage or shipment.
      AND
      - held in a manner to ensure that infestation/reinfestation does not occur following certification

      (iii) **Additional declarations to the phytosanitary certificate**
      If satisfied that the pre-shipment activities have been undertaken, the exporting country NPPO must confirm this by recording the treatments applied in the “Disinfestation and/or Disinfection Treatment” section, and by providing the following additional declaration to the phytosanitary certificate:
"The *Hippeastrum* dormant bulbs in this consignment have been:
- sourced from a “Pest free area”, “Pest free place of production” or “Pest free production site”, free from regulated nematodes and fungi [if applicable].
AND
- sourced from a “Pest free area”, “Pest free place of production” or “Pest free production site”, free from regulated bacteria, phytoplasmas and viruses."

(iv) *Post-entry quarantine*

PEQ: Level 1

**Quarantine Period:** This is the time required to complete inspections and/or testing to detect regulated pests. Three months is an indicative minimum quarantine period. The quarantine period may be extended if material is slow growing, pests are detected, or treatments/testing are required.

3.2 *Hippeastrum* plants in tissue culture from any country

(i) **Documentation**

**Phytosanitary certificate:** a completed phytosanitary certificate, issued by the national plant protection organisation (NPPO) of the exporting country, is required.

**Import permit:** no import permit is required.

(ii) **Special tissue culture media requirements**

The tissue culture media must not contain charcoal.

(iii) **Phytosanitary requirements**

Before a phytosanitary certificate is issued, the exporting country NPPO must be satisfied that the following activities required by the New Zealand Ministry of Agriculture and Forestry (MAF) have been undertaken.

The *Hippeastrum* plants in tissue culture have been:
- inspected in accordance with appropriate official procedures and found to be free of any visually detectable regulated pests.
AND
- derived from parent stock inspected in accordance with appropriate official procedures and found to be free of any visually detectable regulated pests.
AND
- derived from parent stock tested using molecular/serological methods [choose ONE option] and found free of *Impatiens necrotic spot virus* and *Iris yellow spot virus*.

(iv) **Additional declarations to the phytosanitary certificate**

If satisfied that the pre-shipment activities have been undertaken, the exporting country NPPO must confirm this by providing the following additional declaration to the phytosanitary certificate:

"The *Hippeastrum* plants in tissue culture have been derived from parent stock:
- inspected in accordance with appropriate official procedures and found to be free of any visually detectable regulated pests
AND
- tested using molecular/serological methods [choose ONE option] and found free of *Impatiens necrotic spot virus* and *Iris yellow spot virus.*"
(iv) **Post-entry quarantine**
Post-entry quarantine is not required provided that the above measures have been completed overseas. Alternatively the inspection and testing may be completed in post-entry quarantine upon arrival in New Zealand according to the following conditions:

**Phytosanitary certificate:** a completed phytosanitary certificate, issued by the national plant protection organisation (NPPO) of the exporting country, is required.

**Import permit:** an import permit is required.

**PEQ:** Level 3

**Quarantine Period:** This is the time required to complete inspections and/or testing to detect regulated pests. Three months is an indicative minimum quarantine period. The quarantine period may be extended if material is slow growing, pests are detected, or treatments/testing are required.
Pest List for *Hippeastrum*

**REGULATED PESTS (actionable)**

**Mite**
Arachnida
Acarina
Tarsonemidiae
   *Steneotarsonemus laticeps* bulb scale mite

**Nematode**
Secernentea
Tylenchida
   Pratylenchidiae
      *Pratylenchus coffeae* coffee root lesion nematode
      *Pratylenchus scribneri* Scribner's root lesion nematode

**Fungus**
mitosporic fungi (Agonomycetes)
   Agonomycetales
      unknown Agonomycetales
         *Rhizoctonia tuliparum* basal rot
   Basidiomycota: Basidiomycetes
      Agaricales
         *Armillaria mellea* (anamorph *Rhizomorpha subcorticalis*) armillaria root rot

**Bacterium**
Enterobacteriaceae
   *Erwinia rhapontici* bacterial soft rot

**Virus**
   *Hippeastrum mosaic virus* -
   *Impatiens necrotic spot virus* -
   *Iris yellow spot virus* -
   *Nerine latent virus* -
NON-REGULATED PESTS (non-actionable)

Nematode
Secernentea
Tylenchida
Pratylenchidae
Pratylenchus penetrans

Fungus
Ascomycota
Leotiales
Sclerotiniaceae
Botryotinia fuckeliana (anamorph Botrytis cinerea)
Botrytis cinerea
Botryotinia Rolfsii (anamorph Sclerotium rolfsii)
Sclerotiniaceae
Streleales
Atheliaceae
Athelia Rolfsii (anamorph Sclerotium rolfsii)
Zygomycota: Zygomycetes
Mucorales
Rhizopus stolonifer

Mitosporic fungi (Coelomycetes)
Sphaeropsidales
Sphaerioidaceae
Phoma glomerata
Phoma fruit and leaf spot
Stagonospora curtisii
Leaf scorch

Mitosporic fungi (Hyphomycetes)
Hyphomycetales
Dematiaceae
Alternaria longipes
Alternaria spot

Tuberculariales
Tuberculariaceae
Fusarium oxysporum
Leaf spot

Bacterium
Enterobacteriaceae
Erwinia carotovora subsp. Carotovora
Bacterial soft rot

Virus
Cucumber mosaic virus
Leek yellow stripe virus
Tobacco mosaic virus
Tomato spotted wilt virus
Humulus

Note: The entry conditions in this schedule only apply to species in the Plants Biosecurity Index listed under Import Specifications for Nursery Stock as “see 155.02.06 under Humulus”, and are additional to those specified in sections 1, 2 and 3 of the import health standard.

GENERAL CONDITIONS:

Countries: All

Quarantine Pests: Pseudoperonospora humuli; Tetranychus kanzawai; Verticillium albo-atrum

Entry Conditions: Basic; with variations and additional conditions as specified below:

For Whole Plants and Tissue Culture:

PEQ: Level 3
Minimum Period: 3 months
**Hydrangea**

**Note:** The entry conditions in this schedule only apply to species in the Plants Biosecurity Index listed under Import Specifications for Nursery Stock as “see 155.02.06 under Hydrangea”, and are additional to those specified in sections 1, 2 and 3 of the import health standard.

**GENERAL CONDITIONS:**

**Countries:** All

**Quarantine Pests:** *Tetranychus kanzawai; Xylella fastidiosa*

**Entry Conditions:** Basic; with variations and additional conditions as specified below:

**A. For Cuttings and Whole Plants from All Countries except Argentina, Belize, the Caribbean Islands, Costa Rica, El Salvador, Guatemala, Honduras, Mexico, Nicaragua, Panama, Peru, United States of America, Venezuela and Yugoslavia:**

**PEQ:** Level 2  
**Minimum Period:** 3 months  
**Additional Declaration(s):**

1. "The plants have been dipped prior to export in dicofol at the rate of 0.7g a.i. per litre of water".  
2. "The plants have been sourced from a “Pest free area”, free from *Xylella fastidiosa*".

**B. For Plants in Tissue Culture from All Countries:**

As for **Standard Entry Conditions for Tissue Cultures** - see Section 2.2.2.
Ipomoea batatas

Note: The entry conditions in this schedule only apply to species in the Plants Biosecurity Index listed under Import Specifications for Nursery Stock as “see 155.02.06 under Ipomoea batatas”, and are additional to those specified in sections 1, 2 and 3 of the import health standard.

GENERAL CONDITIONS:

Countries: All

Quarantine pests: Helicobasidium mompa; Streptomyces ipomoea; virus diseases; Xylella fastidiosa.

Entry Conditions: Basic; with variations and additional conditions as specified below:

For Whole Plants and Tissue Cultures:
PEQ: Level 3
Minimum Period: 3 months
Note: The entry conditions in this schedule only apply to species in the Plants Biosecurity Index listed under Import Specifications for Nursery Stock as “see 155.02.06 under Iris”, and are additional to those specified in sections 1, 2 and 3 of the import health standard.

1. Type of Iris nursery stock approved for entry into New Zealand
   Whole plants
   Dormant bulbs
   Plants in tissue culture

2. Pests of Iris
   Refer to the pest list.

3. Entry conditions for:
   3.1 Iris whole plants and dormant bulbs from any country
      (i) Documentation
         **Phytosanitary certificate:** a completed phytosanitary certificate, issued by the national plant protection organisation (NPPO) of the exporting country, is required.
         **Import permit:** an import permit is required.
      (ii) Phytosanitary requirements
         Before a phytosanitary certificate is issued, the exporting country NPPO must be satisfied that the following activities required by the New Zealand Ministry of Agriculture and Forestry (MAF) have been undertaken.
         The Iris dormant bulbs or whole plants have been:
         - inspected in accordance with appropriate official procedures and found to be free of any visually detectable regulated pests.
         AND
         - sourced from a “Pest free area”, “Pest free place of production” or “Pest free production site”, free from regulated nematodes and fungi OR treated for regulated nematodes and fungi as described in section 2.2.1.7 of the basic conditions within 7 days prior to freezing, cold-storage or shipment.
         AND
         - sourced from a “Pest free area”, “Pest free place of production” or “Pest free production site”, free from regulated bacteria and viruses.
         AND
         - treated for regulated insects and mites as described in section 2.2.1.6 [whole plants] or section 2.2.1.7 [dormant bulbs] of the basic conditions within 7 days prior to freezing, cold-storage or shipment.
         AND
         - held in a manner to ensure that infestation/reinfestation does not occur following certification.
      (iii) Additional declarations to the phytosanitary certificate
         If satisfied that the pre-shipment activities have been undertaken, the exporting country NPPO must confirm this by recording the treatments applied in the “Disinfestation and/or
Disinfection Treatment” section, and by providing the following additional declaration to the phytosanitary certificate:

"The Iris dormant bulbs or whole plants [choose one] in this consignment have been:
- sourced from a “Pest free area”, “Pest free place of production” or “Pest free production site”, free from regulated nematodes and fungi [if applicable].
AND
- sourced from a “Pest free area”, “Pest free place of production” or “Pest free production site”, free from regulated bacteria and viruses."

(iv) *Post-entry quarantine*

**Whole plants and dormant bulbs**

**PEQ:** Level 1

**Quarantine Period:** This is the time required to complete inspections and/or testing to detect regulated pests. Three months is an indicative minimum quarantine period. The quarantine period may be extended if material is slow growing, pests are detected, or treatments/testing are required. Cut flowers may receive biosecurity clearance while the imported plants remain in post-entry quarantine following inspection of the parent plants and with prior approval from a MAF Inspector.

3.1 *Iris* whole plants and dormant bulbs from the Netherlands

(i) **Documentation**

**Phytosanitary certificate:** a completed phytosanitary certificate, issued by the national plant protection organisation (NPPO) of the exporting country, is required.

**Import permit:** no import permit is required.

(ii) **Phytosanitary requirements**

Before a phytosanitary certificate is issued, the exporting country NPPO must be satisfied that the following activities required by the New Zealand Ministry of Agriculture and Forestry (MAF) have been undertaken.

The *Iris* dormant bulbs or whole plants have been:
- produced in accordance with the requirements of the Bloembollenkeuringsdienst (BKD) Class 1 bulb certification scheme.
AND
- inspected in accordance with appropriate official procedures and found to be free of any visually detectable regulated pests.
AND
- sourced from a “Pest free area”, “Pest free place of production” or “Pest free production site”, free from regulated nematodes and fungi OR treated for regulated nematodes and fungi as described in section or section 2.2.1.7 of the basic conditions within 7 days prior to freezing, cold-storage or shipment.
AND
- sourced from a “Pest free area”, “Pest free place of production” or “Pest free production site”, free from regulated bacteria and viruses.
AND
- treated for regulated insects and mites as described in section 2.2.1.6 [whole plants] or section 2.2.1.7 [dormant bulbs] of the basic conditions within 7 days prior to freezing, cold-storage or shipment.
AND
- held in a manner to ensure that infestation/reinfestation does not occur following certification.

(iii) Additional declarations to the phytosanitary certificate
If satisfied that the pre-shipment activities have been undertaken, the exporting country NPPO must confirm this by recording the treatments applied in the “Disinfestation and/or Disinfection Treatment” section, and by providing the following additional declaration to the phytosanitary certificate:

"The Iris dormant bulbs or whole plants [choose one] in this consignment have been:
- produced in accordance with the requirements of the BKD Class 1 bulb certification scheme.
AND
- sourced from a “Pest free area”, “Pest free place of production” or “Pest free production site”, free from regulated nematodes and fungi [if applicable].
AND
- sourced from a “Pest free area”, “Pest free place of production” or “Pest free production site”, free from regulated bacteria and viruses."

(iv) Post-entry quarantine
Post-entry quarantine is not required provided that the above measures have been completed.

3.3 Iris plants in tissue culture from any country
(i) Documentation
Phytosanitary certificate: a completed phytosanitary certificate, issued by the national plant protection organisation (NPPO) of the exporting country, is required.
Import permit: no import permit is required.

(ii) Special tissue culture media requirements
The tissue culture media must not contain charcoal.

(iii) Phytosanitary requirements
Before a phytosanitary certificate is issued, the exporting country NPPO must be satisfied that the following activities required by the New Zealand Ministry of Agriculture and Forestry (MAF) have been undertaken.
The Iris plants in tissue culture have been:
- inspected in accordance with appropriate official procedures and found to be free of any visually detectable regulated pests.
AND
- derived from parent stock inspected in accordance with appropriate official procedures and found to be free of any visually detectable regulated pests.
AND
- derived from parent stock tested using molecular/serological methods [choose ONE option] and found free of Iris severe mosaic virus, Iris yellow spot virus and Tobacco rattle virus.

(iv) Additional declarations to the phytosanitary certificate
If satisfied that the pre-shipment activities have been undertaken, the exporting country NPPO must confirm this by providing the following additional declaration to the phytosanitary certificate:
"The *Iris* plants in tissue culture have been derived from parent stock:
- inspected in accordance with appropriate official procedures and found to be free of any visually detectable regulated pests
AND
- tested using molecular/ serological methods [choose ONE option] and found free of *Iris severe mosaic virus*, *Iris yellow spot virus* and *Tobacco rattle virus*."

(iv) *Post-entry quarantine*
Post-entry quarantine is not required provided that the above measures have been completed overseas. Alternatively the inspection and testing may be completed in post-entry quarantine upon arrival in New Zealand according to the following conditions:

**Phytosanitary certificate**: a completed phytosanitary certificate, issued by the national plant protection organisation (NPPO) of the exporting country, is required.

**Import permit**: an import permit is required.

**PEQ**: Level 3

**Quarantine Period**: This is the time required to complete inspections and/or testing to detect regulated pests. Three months is an indicative minimum quarantine period. The quarantine period may be extended if material is slow growing, pests are detected, or treatments/testing are required.
Pest List for *Iris*

REGULATED PESTS (actionable)

**Insect**

**Insecta**

**Coleoptera**

**Scarabaeidae**
- *Popilia japonica*  
  Japanese beetle

**Homoptera**

**Pseudococcidae**
- *Aleyrodes spiraeoides* [whole plants only]

**Homoptera**

**Pseudococcidae**
- *Phenacoccus avenae*
- *Phenacoccus emansor*
- *Pseudococcus jackbeardsleyi* [whole plants only]  
  Jack Beardsley mealybug
- *Pseudococcus palestiniae*  
  root mealybug

**Homoptera**

**Pseudococcidae**
- *Phenacoccus avenae*
- *Phenacoccus emansor*
- *Pseudococcus jackbeardsleyi* [whole plants only]  
  Jack Beardsley mealybug
- *Pseudococcus palestiniae*  
  root mealybug

**Homoptera**

**Pseudococcidae**
- *Phenacoccus avenae*
- *Phenacoccus emansor*
- *Pseudococcus jackbeardsleyi* [whole plants only]  
  Jack Beardsley mealybug
- *Pseudococcus palestiniae*  
  root mealybug

**Homoptera**

**Lepidoptera**

**Hepialidae**
- *Hepialus humuli*  
  ghost swift moth
- *Hepialus lupulinus*  
  swift moth

**Noctuidae**

**Hydraecia micacea**  
  potato stem borer
- *Macronoctua onusta*  
  iris borer

**Thysanoptera**

**Thripidae**
- *Frankliniella iridis*  
  iris thrips

**Mite**

**Arachnida**

**Acarina**

**Tarsonemidae**
- *Steneotarsonemus laticeps*  
  bulb scale mite

**Nematode**

**Secernentea**

**Tylenchida**

**Criconematidae**
- *Hemicycliophora typica*  
  sheath nematode

**Dolichoderoidae**
- *Tylenchorhynchus gaudialis*  
  -

**Hoplolaimidae**
- *Rotylenchus goodeyi*  
  spiral nematode

**Meloidogniidae**
- *Meloidogyne arenaria*  
  peanut root knot nematode
- *Meloidogyne ichinohei*  
  -

**Fungus**

**Ascomycota**

**Dothideales**

**Leptosphaeriaceae**
- *Trematosphaeria heterospora*  
  --

**Leotiales**

**Sclerotiniaceae**
- *Botryotinia convoluta* (anamorph *Botrytis convallariae*)  
  stem rot
- *Botryotinia polyblastos* (anamorph *Botrytis polyblastos*)  
  fire disease
- *Sclerotinia bulborum*  
  black slime
Basidiomycota: Basidiomycetes

**Agaricales**

Tricholomataceae

*Armillaria mellea* (anamorph *Rhizomorpha subcorticalis*) armillaria root rot

**Lachnocladiaceae**

Scytinostroma eurasiaticogalactinum white root rot

**Phallales**

Hysterangiaceae

*Hysterangium boudieri* --

**mitosporic fungi (Agonomycetes)**

Agonomycetales

unknown Agonomycetales

*Rhizoctonia tuliparum* basal rot

*Sclerotium rolfsii var. delphinii* sclerotium rot

**Bacterium**

Pseudomonadaceae

*Burkholderia gladioli pv. gladioli* bacterial rot

**Virus**

Broad bean wilt virus -

Iris fulva mosaic virus -

Iris germanica leaf stripe virus -

Iris severe mosaic virus -

Iris yellow spot virus -

Japanese iris necrotic ring virus -

Tobacco rattle virus [strains not in New Zealand] -
NON-REGULATED PESTS (non-actionable)

Insect
Insecta
Coleoptera
Curculionidae
   Phyllopyrus callosus  banded fruit weevil
Silvanidae
   Ahasverus advena  foreign grain beetle
Diptera
Syrphidae
   Eumerus strigatus  onion bulb fly
   Eumerus tuberculatus  lesser bulb fly
   Merodon equestris  narcissus bulb fly
Homoptera
Aphididae
   Aulacorthum circumflexum  mottled arum aphid
   Aulacorthum solani  foxglove aphid
   Dysaphis tulipae  tulip bulb aphid
   Macrosiphum euphorbiae  potato aphid
   Metopolophium dirhodum  rose-grain aphid
   Myzus persicae  green peach aphid
   Rhopalosiphum rufiabdominalis  rice root aphid
Coccidae
   Coccus hesperidum  brown soft scale
Pseudococcidae
   Rhizoeus falcifer  root mealybug
   Vryburgia lounsburyi  lily bulb mealybug
Lepidoptera
Pyralidae
   Plodia interpunctella  Indian meal moth
Thysanoptera
Thripidae
   Thrips simplex  gladiolus thrips
Mite
Arachnida
Acarina
Acaridae
   Acarus siro  grain mite
   Rhizoglyphus echinopus  bulb mite
   Tyrophagus putrescentiae  mould mite
Ascidae
   Blattisocius dentriticus  common ascid mite
   Proctolaelaps pygmaeus  -
Glycyphagidae
   Glycyphagus domesticus  house mite
Histiomidae
   Histostoma feroniarum  damp mite
Tetranychidae
   Petrobia latens  brown wheat mite
Nematode
Secernentea
Tylenchida
Aphelenchoididae
   Aphelenchoides blastophthorus  leaf nematode
   Aphelenchoides fragariae  foliar nematode
   Aphelenchoides ritzemabosi  foliar nematode
Aphelenchoides subtenuis  
*narcissus bulb and leaf nematode*

Dolichodoridae  
*Tylenchorhynchus maximus*

Meloidogyneidae  
*Meloidogyne hapla*  
*northern root knot nematode*  
*Meloidogyne incognita*  
*southern root knot nematode*  
*Meloidogyne javanica*  
*Javanese root knot nematode*

Pratylenchidae  
*Pratylenchus penetrans*  
*root lesion nematode*

Tylenchidae  
*Ditylenchus destructor*  
*potato rot nematode*  
*Ditylenchus dipsaci*  
*stem and bulb nematode*

**Fungus**

Ascomycota  

Dothideales  
*Mycosphaerellaceae*  
*Mycosphaerella macrospora*  
(anamorph *Cladosporium iridis*)  
leaf spot

Hypocreales  
*Hypocreaceae*  
*Nectria haematococca*  
(anamorph *Fusarium solani*)  
fusarium fruit rot

Sclerotiniaceae  
*Botryotinia draytoni*  
(anamorph *Botrytis gladiolorum*)  
botryotinia rot  
*Botryotinia fuckeliana*  
(anamorph *Botrytis cinerea*)  
grey mould  
*Sclerotinia sclerotiorum*  
cottony rot

Phylloclorales  
*Phyllachoraceae*  
*Glomerella cingulata*  
(anamorph *Colletotrichum gloeosporioides*)  
anthracnose

Xylariales  
*Xylariaceae*  
*Rosellinia necatrix*  
(anamorph *Dematophora necatrix*)  
white root rot

Basidiomycota: Basidiomycetes  

Ceratobasidiales  
*Ceratobasidiaceae*  
*Thanatephorus cucumeris*  
(anamorph *Rhizoctonia solani*)  
rhizoctonia rot

Stereales  
*Atheliaceae*  
*Athelia rolfsii*  
(anamorph *Sclerotium rolfsii*)  
Rolf's disease

Basidiomycota: Ustomycetes  

Platygloeales  
*Platygloeaceae*  
*Helicobasidium purpureum*  
(anamorph *Rhizoctonia crocorum*)  
violet root rot

Oomycota  

Pythiales  
*Pythiaceae*  
*Phytophthora cactorum*  
phytophthora crown and root rot  
*Phytophthora hibernalis*  
citrus brown rot  
*Phytophthora nicotianae*  
root and stem rot  
*Pythium debaryanum*  
leak  
*Pythium irregulare*  
pythium root and stem rot

mitosporic fungi (Hyphomycetes)  

Hyphomycetales  
*Dematiaceae*  
*Bipolaris iridis*  
-

Moniliaceae  
*Botrytis tulipae*  
blast

Tuberculariales  
*Tuberculariaceae*
### Fusarium oxysporum
- leaf spot

**Fusarium oxysporum** f. sp. **gladioli**
- fusarium wilt

### Bacterium

**Enterobacteriaceae**
- *Erwinia carotovora* subsp. *carotovora*
  - bacterial soft rot

**Pseudomonadaceae**
- *Burkholderia gladioli* pv. *alliicola* [whole plants only]
  - bacterial rot
- *Xanthomonas campestris* pv. *tardicrescens*
  - bacterial blight

### Virus

- *Arabis mosaic virus* 
- *Bean yellow mosaic virus* 
- *Cucumber mosaic virus* 
- *Iris mild mosaic virus* 
- *Narcissus latent virus* 
- *Tobacco rattle virus* [Paeonia and Narcissus infecting strains]
- *Tobacco ringspot virus* 
- *Cucumber mosaic virus* 
- *Iris mild mosaic virus* 
- *Narcissus latent virus* 
- *Tobacco rattle virus* [Paeonia and Narcissus infecting strains]
- *Tobacco ringspot virus*
Note: The entry conditions in this schedule only apply to species in the Plants Biosecurity Index listed under Import Specifications for Nursery Stock as “see 155.02.06 under Juglans”, and are additional to those specified in sections 1, 2 and 3 of the import health standard.

GENERAL CONDITIONS:

Countries: Australia, Austria, Belgium, Canada, Denmark, Finland, France, Germany, Greece, Hungary, Ireland, Italy, Luxembourg, The Netherlands, Norway, Portugal, Spain, Sweden, Switzerland, United Kingdom, USA.

Quarantine Pests: Erwinia quercina pv. rubrifaciens; Erwinia nigrifluens; Gnomonia leptostyla; Walnut bunch/brooming disease; Walnut blackline; Xylella fastidiosa.

Entry Conditions: Basic; with variations and additional conditions as specified below:

For Whole Plants and Tissue Culture:

PEQ: Level 3
Minimum Period: 6 months
Juliperus

**Note:** The entry conditions in this schedule only apply to species in the Plants Biosecurity Index listed under Import Specifications for Nursery Stock as “see 155.02.06 under *Juniperas*”, and are additional to those specified in sections 1, 2 and 3 of the import health standard.

**GENERAL CONDITIONS:**

**Countries:** All

**Quarantine Pests:** *Bursaphelenchus* spp.; *Lophodermium* spp.; Uredinales

**Entry Conditions:** Basic; with variations and additional conditions as specified below:

**For Whole Plants:**

- **PEQ:** Level 3
- **Minimum Period:** 6 months
**Note:** The entry conditions in this schedule only apply to species in the Plants Biosecurity Index listed under Import Specifications for Nursery Stock as “see 155.02.06 under *Kalmia*”, and are additional to those specified in sections 1, 2 and 3 of the import health standard.

**GENERAL CONDITIONS:**

**Countries:** Australia, Austria, Belgium, Canada, Denmark, Finland, France, Germany, Greece, Hungary, Ireland, Italy, Luxembourg, The Netherlands, Norway, Portugal, Spain, Sweden, Switzerland, United Kingdom, USA.

**Quarantine Pests:** *Chrysomyxa ledi, Microsphaeria* spp.; *Phytophthora ramorum*

**Entry Conditions:** Basic; with variations and additional conditions as specified below:

**A. For Cuttings and Whole Plants from Australia and Canada (these commodities may not be imported from other countries):**

- **PEQ:** Level 2
- **Minimum Period:** 3 months
- **Additional Declarations:**
  1. "*Chrysomyxa ledi* and *Microsphaeria* spp. are not known to occur in _____ (the country or state of where the plants were grown) _____".
  
  **OR**
  "The plants were inspected during the growing season and no *Chrysomyxa ledi* or *Microsphaeria* spp. was detected".
  2. "The plants have been dipped prior to export in propiconazole at the rate of 0.5g a.i. per litre of water."
  3. "The plants have been sourced from a “Pest free area”, free from *Phytophthora ramorum*".

**B. For Tissue Cultures:**

As for **Standard Entry Conditions for Tissue Cultures** - see Section 2.2.2.
Note: The entry conditions in this schedule only apply to species in the Plants Biosecurity Index listed under Import Specifications for Nursery Stock as “see 155.02.06 under Liatris”, and are additional to those specified in sections 1, 2 and 3 of the import health standard.

GENERAL CONDITIONS:

Countries: Australia, Austria, Belgium, Canada, Denmark, Finland, France, Germany, Greece, Ireland, Israel, Italy, Luxembourg, The Netherlands, Portugal, Spain, Sweden, United Kingdom, USA.

Quarantine Pests: Phymatotrichopsis omnivora; Uredinales

Entry Conditions: Basic; with variations and additional conditions as specified below:

A. For Whole Plants
PEQ: Level 2
Minimum Period: 3 months
Additional Declaration:
"Rust diseases of genus Coleosporium and Cronatium are not known to occur on _____(the host species being imported)______ in _______ (the country in which the plants were grown) _______".

B. For Dormant Bulbs from Australia, Austria, Belgium, Canada, Denmark, Finland, France, Germany, Greece, Ireland, Israel, Italy, Luxembourg, The Netherlands, Portugal, Spain, Sweden, United Kingdom:
OPTION 1:
No import permit is required.
PEQ: None
Additional Declaration(s):
“In addition to inspection of dormant bulbs prior to shipment, the crop from which the bulbs were derived was inspected during the growing season according to appropriate procedures, and considered free of quarantine pests, and practically free from other injurious pests.”
OPTION 2:
PEQ: Level 1
Minimum Period: 3 months

C. For Dormant Bulbs from the USA:
No import permit is required unless the bulbs require post-entry quarantine.
PEQ: None or Level 2 (see below)
Additional Declaration(s):
1. "In addition to inspection of dormant bulbs prior to shipment, the crop from which the bulbs were derived was inspected during the growing season according to appropriate procedures, and considered free of quarantine pests, and practically free from other injurious pests".
2. ”The dormant tubers have been sourced from a “Pest free area”, free from Phymatotrichopsis omnivora".
OR
(i) "The dormant bulbs have been sourced from a “Pest free place of production”, free from *Phymatotrichopsis omnivora*.
AND
(ii) the consignment must be treated for fungi as described in Section 2.2.1.7 “Pesticide treatments for dormant bulbs”. If satisfied that the pre-shipment activities have been undertaken, the exporting country NPPO must confirm this by recording the treatments applied in the “Disinfestation and/or Disinfection Treatment” section of the phytosanitary certificate.
AND
(iii) Post-entry quarantine: Upon arrival in New Zealand the dormant bulbs will require a period of at least 3 months in Level 2 post-entry quarantine.

**D. For Tissue Cultures:**
As for *Standard Entry Conditions for Tissue Cultures* - see Section 2.2.2.
Lilium

Note: The entry conditions in this schedule only apply to species in the Plants Biosecurity Index listed under Import Specifications for Nursery Stock as “see 155.02.06 under *Lilium*”, and are additional to those specified in sections 1, 2 and 3 of the import health standard.

1. Type of *Lilium* nursery stock approved for entry into New Zealand
   Dormant bulbs
   Plants in tissue culture

2. Pests of *Lilium*
   Refer to the pest list.

3. Entry conditions for:
   3.1 *Lilium* dormant bulbs from any country
   (i) **Documentation**
   **Phytosanitary certificate:** a completed phytosanitary certificate, issued by the national plant protection organisation (NPPO) of the exporting country, is required.
   **Import permit:** an import permit is required.

   (ii) **Phytosanitary requirements**
   Before a phytosanitary certificate is issued, the exporting country NPPO must be satisfied that the following activities required by the New Zealand Ministry of Agriculture and Forestry (MAF) have been undertaken.

   The *Lilium* dormant bulbs have been:
   - inspected in accordance with appropriate official procedures and found to be free of any visually detectable regulated pests.
   AND
   - sourced from a “Pest free area”, “Pest free place of production” or “Pest free production site”, free from regulated nematodes and fungi OR treated for regulated nematodes and fungi as described in section 2.2.1.7 of the basic conditions within 7 days prior to freezing, cold-storage or shipment.
   AND
   - sourced from a “Pest free area”, “Pest free place of production” or “Pest free production site”, free from regulated bacteria and viruses.
   AND
   - treated for regulated insects and mites as described in section 2.2.1.7 of the basic conditions within 7 days prior to freezing, cold-storage or shipment.
   AND
   - held in a manner to ensure that infestation/reinfestation does not occur following certification.

   (iii) **Additional declarations to the phytosanitary certificate**
   If satisfied that the pre-shipment activities have been undertaken, the exporting country NPPO must confirm this by recording the treatments applied in the “Disinfestation and/or Disinfection Treatment” section, and by providing the following additional declaration to the phytosanitary certificate:
"The *Lilium* dormant bulbs in this consignment have been:
- sourced from a “Pest free area”, “Pest free place of production” or “Pest free production site”, free from regulated nematodes and fungi [if applicable].
AND
- sourced from a “Pest free area”, “Pest free place of production” or “Pest free production site”, free from regulated bacteria and viruses."

(iv) *Post-entry quarantine*

**PEQ: Level 1**

**Quarantine Period:** This is the time required to complete inspections and/or testing to detect regulated pests. Three months is an indicative minimum quarantine period. The quarantine period may be extended if material is slow growing, pests are detected, or treatments/testing are required. Cut flowers may receive biosecurity clearance while the imported plants remain in post-entry quarantine following inspection of the parent plants (including inspection for bulbils) and with prior approval from a MAF Inspector.

3.2 *Lilium* dormant bulbs from the Netherlands

(i) **Documentation**

*Phytosanitary certificate:* a completed phytosanitary certificate, issued by the national plant protection organisation (NPPO) of the exporting country, is required.

*Import permit:* no import permit is required.

(ii) **Phytosanitary requirements**

Before a phytosanitary certificate is issued, the exporting country NPPO must be satisfied that the following activities required by the New Zealand Ministry of Agriculture and Forestry (MAF) have been undertaken.

The *Lilium* dormant bulbs have been:
- produced in accordance with the requirements of the Bloembollenkeuringsdienst (BKD) ALG bulb certification scheme.

AND
- inspected in accordance with appropriate official procedures and found to be free of any visually detectable regulated pests.

AND
- sourced from a “Pest free area”, “Pest free place of production” or “Pest free production site”, free from regulated nematodes and fungi OR treated for regulated nematodes and fungi as described in section 2.2.1.7 of the basic conditions within 7 days prior to freezing, cold-storage or shipment.

AND
- sourced from a “Pest free area”, “Pest free place of production” or “Pest free production site”, free from regulated bacteria and viruses.

AND
- held in a manner to ensure that infestation/reinfestation does not occur following certification.

(iii) **Additional declarations to the phytosanitary certificate**

If satisfied that the pre-shipment activities have been undertaken, the exporting country NPPO must confirm this by recording the treatments applied in the “Disinfestation and/or Disinfection Treatment” section, and by providing the following additional declaration to the phytosanitary certificate:
"The *Lilium* dormant bulbs in this consignment have been:
- produced in accordance with the requirements of the BKD Class ALG bulb certification scheme.

AND
- sourced from a “Pest free area”, “Pest free place of production” or “Pest free production site”, free from regulated nematodes and fungi [if applicable].

AND
- sourced from a “Pest free area”, “Pest free place of production” or “Pest free production site”, free from regulated bacteria and viruses."

(iv) **Post-entry quarantine**
Post-entry quarantine is not required provided that the above measures have been completed.

3.3 *Lilium* plants in tissue culture from any country

(i) **Documentation**

*Phytosanitary certificate:* a completed phytosanitary certificate, issued by the national plant protection organisation (NPPO) of the exporting country, is required.

*Import permit:* no import permit is required.

(ii) **Special tissue culture media requirements**
The tissue culture media must not contain charcoal.

(iii) **Phytosanitary requirements**
Before a phytosanitary certificate is issued, the exporting country NPPO must be satisfied that the following activities required by the New Zealand Ministry of Agriculture and Forestry (MAF) have been undertaken.

The *Lilium* plants in tissue culture have been:
- inspected in accordance with appropriate official procedures and found to be free of any visually detectable regulated pests.

AND
- derived from parent stock inspected in accordance with appropriate official procedures and found to be free of any visually detectable regulated pests.

AND
- derived from parent stock tested using molecular/serological methods [choose ONE option] and found free of *Apple stem grooving virus* and *Tobacco rattle virus*.

(iv) **Additional declarations to the phytosanitary certificate**
If satisfied that the pre-shipment activities have been undertaken, the exporting country NPPO must confirm this by providing the following additional declaration to the phytosanitary certificate:

"The *Lilium* plants in tissue culture have been derived from parent stock:
- inspected in accordance with appropriate official procedures and found to be free of any visually detectable regulated pests

AND
- tested using molecular/serological methods [choose ONE option] and found free of *Apple stem grooving virus* and *Tobacco rattle virus.*"

(iv) **Post-entry quarantine**
Post-entry quarantine is not required provided that the above measures have been completed overseas. Alternatively the inspection and testing may be completed in post-entry quarantine upon arrival in New Zealand according to the following conditions:

**Phytosanitary certificate:** a completed phytosanitary certificate, issued by the national plant protection organisation (NPPO) of the exporting country, is required.

**Import permit:** an import permit is required.

**PEQ:** Level 3

**Quarantine Period:** This is the time required to complete inspections and/or testing to detect regulated pests. Three months is an indicative minimum quarantine period. The quarantine period may be extended if material is slow growing, pests are detected, or treatments/testing are required.
# Pest List for *Lilium*

## REGULATED PESTS (actionable)

### Insect

**Insecta**

**Collembola**

- **Entomobryidae**
  - *Entomobrya multifasciata* 
  - Springtail

**Lepidoptera**

- **Yponomeutidae**
  - *Acrolepiopsis lilivora* 
  - 

### Mite

**Arachnida**

**Acarina**

- **Acaridae**
  - *Schwiebea cuncta* 
  - 
  - *Schwiebea taiwanensis* 
  - 

- **Tenuipalpidae**
  - *Brevipalpus lilium* 
  - false spider mite

### Nematode

**Adenophorea**

**Dorylaimida**

- **Longidoridae**
  - *Xiphinema insigne* 
  - dagger nematode

- **Trichodoridae**
  - *Pararichodorus spp.* (except *P. lobatus*, *P. minor*, *P. pachydermus*, *P. porosus*) 
  - 
  - *Trichodorus spp.* (except *T. christiei*, *T. cottieri*, *T. porosus*, *T. primitivus*) 
  - 

**Secernentea**

**Tylenchida**

- **Meloidogynidae**
  - *Meloidogyne spp.* (except *M. ardenensis*, *M. hapla*, *M. incognita*, *M. javanica*, *M. naasi*) 
  - 

- **Pratylenchidae**
  - *Pratylenchus brachyurus* 
  - root lesion nematode

### Fungus

**Ascomycota**

**Dothideales**

- **Mycosphaerellaceae**
  - *Didymella intermedia* 
  - black rot

- **Mycosphaerella martagonis** 
  - black blotch

**Basidiomycota: Basidiomycetes**

**Agaricales**

- **Tricholomataceae**
  - *Auriculariales* 
  - *Armillaria mellea* (anamorph *Rhizomorpha subcorticalis*) 
  - armillaria root rot

- **Uredinales**
  - *Helicobasidium mompa* 
  - violet root rot

**Basidiomycota: Teliomycetes**

**Uredinales**

- **Pucciniaceae**
  - *Puccinia sporoboli* (anamorph *Aecidium lili*) 
  - Rust

  - *Uromyces aecidiiformis* 
  - rust fungi

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<table>
<thead>
<tr>
<th>Fungi</th>
<th>Host Name</th>
<th>Disease</th>
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<tbody>
<tr>
<td>Uromyces holwayi</td>
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<tr>
<td>mitosporic fungi (Agonomycetes)</td>
<td>-</td>
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<tr>
<td>Agonomycetales</td>
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<tr>
<td>Rhizoctonia tuliparum</td>
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<td>basal rot</td>
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<td>Sclerotium rolfsii var. delphini</td>
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<td>sclerotium rot</td>
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<td>Sclerotium wakkeri</td>
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<td>Blackleg</td>
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<td>Phyllosticta liliicola</td>
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<tr>
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<td>basal rot</td>
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<td>unknown Hyphomycetes</td>
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<td>Virus</td>
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<td>Apple stem grooving virus [strains not in New Zealand]</td>
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<td>Lily mottle virus</td>
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<td>Lily rosette virus</td>
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<td>Tobacco rattle virus [strains not in New Zealand]</td>
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<tr>
<td>Tomato ringspot virus [strains not in New Zealand]</td>
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</tbody>
</table>
**NON-REGULATED PESTS** (non-actionable)

**Insect**
**Insecta**
**Coleoptera**
Anobiidae
- *Lasioderma serricorne* – cigarette beetle
Curculionidae
- *Sitophilus oryzae* – rice weevil
Silvanidae
- *Oryzaephilus mercator* – merchant grain beetle

**Diptera**
Syrphidae
- *Eumerus strigatus* – onion bulb fly
- *Merodon equestris* – narcissus bulb fly

**Homoptera**
Aleyrodidae
- *Trialeurodes vaporariorum* – greenhouse whitefly

**Lepidoptera**
Pyralidae
- *Ephestia cautella* – tropical warehouse moth

**Thysanoptera**
Phlaeothripidae
- *Liothrips vaneeckei* – lily bulb thrips

**Mite**
**Arachnida**
**Acarina**
Acaridae
- *Caloglyphus mycophagus* – bulb mite
- *Rhizoglyphus callae* – bulb mite
- *Rhizoglyphus echinopus* – bulb mite
- *Rhizoglyphus robini* – bulb mite
- *Tyrophagus similis* – bulb mite
Histiomidae
- *Histiostoma feroniae* – damp mite

**Nematode**
**Adenophorea**
**Dorylaimida**
Longidoridae
- *Xiphinema diversicaudatum* – European dagger nematode

**Secernentea**
**Tylenchida**
**Aphelenchoïdidae**
- *Aphelenchoides fragariae* – foliar nematode
- *Aphelenchoides ritzemabosi* – foliar nematode
Hoplolaimidae
  *Rotylenchus robustus* spiral nematode

Pratylenchidae
  *Pratylenchus penetrans* root lesion nematode
  *Pratylenchus pratensis* root lesion nematode
  *Pratylenchus vulnus* root lesion nematode

Tylenchidae
  *Ditylenchus dipsaci* stem and bulb nematode

Fungus
Ascomycota
  **Botryosphaeriaceae**
  *Botryosphaeria rhodina* (anamorph *Lasiodiplodia theobromae*) Gummosis

 **Hypocreales**
  **Hypocreaceae**
  *Bionectria ochroleuca* (anamorph *Gliocladium roseum*) fusarium rot
  *Gibberella fujikuroi* (anamorph *Fusarium fujikuroi*) fusarium rot
  *Nectria haematococca* (anamorph *Fusarium solani*) fusarium fruit rot
  *Nectria radicicola* (anamorph *Cylindrocarpon destructans*) Rot

Leotiales
  **Sclerotiniaceae**
  *Botryotinia fuckeliana* (anamorph *Botrytis cinerea*) grey mould
  *Sclerotinia sclerotiorum* cotty rot

Phyllachorales
  **Phyllachoraceae**
  *Glomerella cingulata* (anamorph *Colletotrichum gloeosporioides*) Anthracnose

Basidiomycota: Basidiomycetes
  **Ceratobasidiales**
  **Ceratobasidiaceae**
  *Thanatephorus cucumeris* (anamorph *Rhizoctonia solani*) rhizoctonia rot

 **Stereales**
  **Atheliaceae**
  *Athelia rolfsii* (anamorph *Sclerotium rolfsii*) Roll's disease

Basidiomycota: Ustomycetes
  **Platygloeales**
  **Platygloeaceae**
  *Helicobasidium purpureum* (anamorph *Rhizoctonia crocorum*) violet root rot

Oomycota
  **Pythiales**
  **Pythiaceae**
  *Phytophthora cactorum* phytophthora crown and root rot
  *Phytophthora cinnamomi* phytophthora crown and root rot
  *Phytophthora nicotianae* buckeye rot
  *Pythium splendens* basal stem and root rot
  *Pythium ultimum* Leak

Zygomycota: Zygomycetes
  **Mucorales**
  **Mucoraceae**
  *Rhizopus stolonifer* rhizopus soft rot

mitosporic fungi (Coelomycetes)
  **Sphaeropsidales**
  **Sphaeroidaceae**
  *Macrophomina phaseolina* ashy stem blight

unknown Coelomycetes
unknown Coelomycetes

*Colletotrichum dematium*  Anthracnose

mitosporic fungi (Hyphomycetes)

Hyphomycetales

Dematiaceae

*Thielaviopsis basicola*  black root rot

Moniliaceae

*Botrytis elliptica*  botrytis blight

*Botrytis tulipae*  Blast

Tuberariales

Tuberculaceae

*Fusarium oxysporum* f. sp. *narcissi*  basal rot

Bacterium

Corynebacteriaceae

*Corynebacterium fascians*  Fasciation

Virus

*Apple stem grooving virus* [Malus infecting strain] -

*Arabis mosaic virus* -

*Lily symptomless virus* -

*Narcissus mosaic virus* -

*Tobacco rattle virus* [Paeonia and Narcissus infecting strains] -

*Tobacco aspermy virus* -

*Tomato ringspot virus* [Grape yellow vein strain] -

*Tulip breaking virus* (syn. *Tulip mosaic virus*) -
**Lithocarpus densiflorus**

**Note:** The entry conditions in this schedule only apply to species in the Plants Biosecurity Index listed under Import Specifications for Nursery Stock as “see 155.02.06 under Lithocarpus densiflorus”, and are additional to those specified in sections 1, 2 and 3 of the import health standard.

**GENERAL CONDITIONS:**

**Countries:** Austria, Belgium, Canada, Denmark, Finland, France, Germany, Greece, Hungary, Ireland, Italy, Luxembourg, The Netherlands, Norway, Portugal, Spain, Sweden, Switzerland, United Kingdom, USA.

**Quarantine Pests:** Cronartium quercuum; Ceratocystis fagacearum; Tortricidae

**Entry Conditions:** Basic; with variations and additional conditions as specified below:

**A. For Whole Plants (dormant) and Cuttings (dormant):**

**OPTION 1:**
**PEQ:** Level 2
**Minimum Period:** 6 months

**Additional Declaration:**
1. "Ceratocystis fagacearum is not known to occur in _____ (the country or state where the plants/cuttings were grown) ______ ".
   OR (for cuttings)
   "The tree(s), from which this material was taken, was inspected during the previous growing season and no Ceratocystis fagacearum was detected".
   OR (for young plants)
   "The plants were inspected during the previous growing season and no Ceratocystis fagacearum was detected".
2. "The plants have been dipped in propiconazole at the rate of 0.5g a.i. per litre of water".

**OPTION 2:**
**PEQ:** Level 3
**Minimum Period:** 6 months

**B. For Tissue Cultures:**
As for Standard Entry Conditions for Tissue Cultures - see Section 2.2.2, but subject to examination at a MAF-registered laboratory at the importers expense, prior to release to the importer.
Note: The entry conditions in this schedule only apply to species in the Plants Biosecurity Index listed under Import Specifications for Nursery Stock as “see 155.02.06 under Litchi”, and are additional to those specified in sections 1, 2 and 3 of the import health standard.

GENERAL CONDITIONS:

Countries: Australia

Quarantine Pests: *Aceria litchii*; Xyloryctidae (Lepidoptera)

Entry Conditions: Basic; with variations and additional conditions as specified below:

A. For Whole Plants:

PEQ: Level 2
Minimum Period: 6 months

Additional Declaration:

"The plants were grown on a nursery that has been inspected for the presence of *Aceria litchii* and members of the Xyloryctidae and none were found".

B. For Tissue Cultures:

As for *Standard Entry Conditions for Tissue Cultures* - see Section 2.2.2
**Note:** The entry conditions in this schedule only apply to species in the Plants Biosecurity Index listed under Import Specifications for Nursery Stock as “see 155.02.06 under *Lophophora williamsii*, and are additional to those specified in sections 1, 2 and 3 of the import health standard.

**GENERAL CONDITIONS:**

**Countries:** All

**Entry Conditions:** Basic; with variations and additional conditions as specified below:

**Import permit:** an import permit is required. Before applying for an import permit, the importer must obtain written approval to import from:

- **Director General of Health**
- **Ministry of Health**
- **PO Box 5013**
- **Wellington**
- **Attention: Advisor, Controlled Drug Licensing**

**Telephone:** 04 496 2438
<table>
<thead>
<tr>
<th>Scientific name</th>
<th>Commodity Sub-class</th>
<th>Date Issued</th>
</tr>
</thead>
<tbody>
<tr>
<td><em>Malus sylvestris</em> var. <em>domestica</em></td>
<td>Cuttings (dormant)</td>
<td>12 June 1998</td>
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</table>
Note: The entry conditions in this schedule only apply to species in the Plants Biosecurity Index listed under Import Specifications for Nursery Stock as “see 155.02.06 under Mangifera”, and are additional to those specified in sections 1, 2 and 3 of the import health standard.

**Mangifera**

**GENERAL CONDITIONS:**

**Countries:** Australia, India, Pakistan, Mexico, Philippines

**Quarantine Pests:** *Xanthomonas campestris* pv. *mangiferae-indicae*

**Entry Conditions:** Basic; with variations and additional conditions as specified below:

**For Whole Plants and Tissus Culture:**

- **PEQ:** Level 2
- **Minimum Period:** 6 months

**Additional Declaration:**

"*Xanthomonas campestris* pv. *mangiferae-indicae* is not known to occur in ______ (the country or state where the plants were grown) ______.”

**OR**

"The plants were inspected during the growing season and no *Xanthomonas campestris* pv. *mangiferae-indicae* was detected".
**Musa**

**Note:** The entry conditions in this schedule only apply to species in the Plants Biosecurity Index listed under Import Specifications for Nursery Stock as “see 155.02.06 under Musa”, and are additional to those specified in sections 1, 2 and 3 of the import health standard.

**GENERAL CONDITIONS:**

**Countries:** All

**Quarantine Pests:** *Cosmopolites sordidus;* *Fusarium oxysporum* f.sp. *cubense; Mycosphaerella fijiensis;* *Pseudomonas solanacearum;* *Radopholus similis;* Bunchy top virus

**Entry Conditions:** Basic; with variations and additional conditions as specified below:

**A. For Whole Plants:**

- **PEQ:** Level 3
- **Minimum Period:** 3 months

**B. For Tissue Cultures:**

As for **Standard Entry Conditions for Tissue Cultures** - see Section 2.2.2, but subject to examination at a MAF-registered laboratory at the importers expense, prior to release to the importer;

PLUS

**Additional Declaration:**

"The cultures have been derived from parent stock tested and found free of Bunchy top virus".
Note: The entry conditions in this schedule only apply to species in the Plants Biosecurity Index listed under Import Specifications for Nursery Stock as “see 155.02.06 under Nandina”, and are additional to those specified in sections 1, 2 and 3 of the import health standard.

GENERAL CONDITIONS:

Countries: All

Quarantine Pests: Bamboo mosaic virus

Entry Conditions: Basic; with variations and additional conditions as specified below:

A. For Whole Plants:

PEQ: Level 2
Minimum Period: 3 months

Additional Declaration:

"Bamboo mosaic virus is not known to occur in _____ (the country or state where the plants were grown) ______ ".

OR

"The plants have been inspected during the growing season and no bamboo mosaic virus was detected".

B. For Tissue Cultures:

PEQ: Level 2
Minimum Period: 3 months

Additional Declaration:

"The cultures have been derived from parent stock tested and found free of bamboo mosaic virus"
**Narcissus**

**Note:** The entry conditions in this schedule only apply to species in the Plants Biosecurity Index listed under Import Specifications for Nursery Stock as “see 155.02.06 under Narcissus”, and are additional to those specified in sections 1, 2 and 3 of the import health standard.

**GENERAL CONDITIONS:**

**Countries:** All

**Quarantine Pests:** *Frankliniella occidentalis; Hepialus lupulinus; Lilioceris lilii; Pratylenchus scribneri; Ramularia vallisumbrosae; Sclerotinia polyblastis; Steneotarsonemus laticeps; virus diseases.*

**Entry Conditions:** Basic; with variations and additional conditions as specified below:

A. For Whole Plants:

PEQ: Level 2

Minimum Period: 6 months

B. For Dormant Bulbs from Australia, Austria, Belgium, Canada, Denmark, Finland, France, Germany, Greece, Ireland, Israel, Italy, Luxembourg, The Netherlands, Portugal, South Africa, Spain, Sweden, United Kingdom, USA:

**OPTION 1:**
No import permit is required.

PEQ: None

Additional Declaration(s):

1) For bulbs produced under a MAF-approved Dutch bulb propagation scheme:
"In addition to inspection of the dormant bulbs prior to shipment, the imported bulbs meet the requirements of the BKD Class 1 or ALG [choose one] bulb certification scheme."

OR

2) For bulbs NOT produced under a MAF-approved bulb propagation scheme:
"In addition to inspection of dormant bulbs prior to shipment, the crop from which the bulbs were derived was inspected during the growing season according to appropriate procedures, and considered free of quarantine pests, and practically free from other injurious pests."

**OPTION 2:**

PEQ: Level 1

Minimum Period: 3 months
C. For Dormant Bulbs from Countries other than Australia, Austria, Belgium, Canada, Denmark, Finland, France, Germany, Greece, Ireland, Israel, Italy, Luxembourg, The Netherlands, Portugal, South Africa, Spain, Sweden, United Kingdom, USA:

**OPTION 1:**
PEQ: Level 1
**Minimum Period:** 3 months
**Additional Declaration(s):**
"The dormant bulbs in this consignment have been:
- derived from a crop which was inspected during the growing season according to appropriate procedures and found to be free of regulated pests.
AND
- treated for regulated insects as described in section 2.2.1.7 of the basic conditions within 7 days prior to freezing, cold-storage or shipment."

**OPTION 2:**
PEQ: Level 2
**Minimum Period:** 3 months

**D. For Tissue Cultures:**
As for Standard Entry Conditions for Tissue Cultures - see Section 2.2.2.
**PLUS:**
**Additional Declaration:**
"The cultures have been derived from parent stock tested and found free of virus diseases."
Note: The entry conditions in this schedule only apply to species in the Plants Biosecurity Index listed under Import Specifications for Nursery Stock as “see 155.02.06 under Olea”, and are additional to those specified in sections 1, 2 and 3 of the import health standard.

1. Type of Olea nursery stock approved for entry into New Zealand
Cuttings (dormant); Plants in tissue culture

2. Pests of Olea
Refer to the pest list.

3. Entry conditions for:
3.1 Olea cuttings and tissue culture from any country
(i) Documentation
Phytosanitary certificate: a completed phytosanitary certificate issued by the NPPO of the exporting country must accompany all Olea nursery stock exported to New Zealand.
Import permit: an import permit is required.

(ii) Phytosanitary requirements
Before a phytosanitary certificate is issued, the NPPO of the exporting country must be satisfied that the following activities required by MAF have been undertaken.

The Olea cuttings / plants in tissue culture [choose ONE option] have been:
- inspected in accordance with appropriate official procedures and found to be free of any visually detectable regulated pests.
AND
- treated for regulated insects and mites as described in section 2.2.1.6 of the basic conditions within 7 days prior to shipment [cuttings only].
AND
- held in a manner to ensure that infestation/reinfestation does not occur following certification.

(iii) Additional declarations to the phytosanitary certificate
If satisfied that the pre-shipment activities have been undertaken, the exporting country NPPO must confirm this by recording the treatments applied in the “Disinfestation and/or Disinfection Treatment” section [cuttings only]. No additional declarations are required.

(iv) Special tissue culture media requirements
The tissue culture media must not contain charcoal.
(v) **Post-entry quarantine**

**PEQ:** All *Olea* nursery stock must be imported under permit into post-entry quarantine in a level 3 quarantine facility accredited to MAF standard PBC-NZ-TRA-PQCON *Specification for the registration of a plant quarantine or containment facility, and operator.*

**Quarantine Period and Inspection, Testing and Treatment Requirements:** The nursery stock will be grown for a minimum period of 12 months in post-entry quarantine and will be inspected, treated and/or tested for regulated pests as specified in the “Inspection, Testing and Treatment Requirements for *Olea*”, at the expense of the importer. Twelve months is an indicative minimum quarantine period and this period may be extended if material is slow growing, pests are detected, or treatments/testing are required.
Pest List for *Olea*

**REGULATED PESTS (actionable)**

**Insect**

**Insecta**

**Coccidae**
- *Saissetia privigna*  
  black scale

**Coleoptera**
- *Rhynchites cribripennis*  
  twig cutter

**Attelabidae**
- *Anthaxia ariadna*  
  wood-boring beetle

**Buprestidae**
- *Hylesinus fraxini*  
  bark beetle
- *Hylesinus oleiperda*  
  bark beetle
- *Hylesinus toranio*  
  bark beetle
- *Phloeotribus oleae*  
  bark beetle
- *Phloeotribus scarabaeoides*  
  bark beetle
- *Xylosandrus compactus*  
  black twig borer

**Scolytidae**
- *Aonidomytilus espinosai*  
  scale
- *Hemiberlesia palmae*  
  palm scale
- *Leucaspis ricae*  
  scale
- *Lindiaspis ferrisi*  
  scale
- *Parlatoria oleae*  
  olive scale
- *Pseudaulacaspis pentagona*  
  white peach scale
- *Selenaspis articulatus*  
  West Indian red scale

**Diptera**
- *Euzophera pinguis*  
  bark borer

**Asterolecaniidae**
- *Pollinia pollini*  
  globe shaped olive scale

**Cecidomyiidae**
- *Thomasinia sp.*  
  olive bark midge

**Coccidae**
- *Ceroplastes rusci*  
  fig wax scale
- *Lichtensia viburni*  
  scale
- *Metaceronema japonica*  
  scale insect

**Diaspididae**
- *Aonidomytilus espinosai*  
  scale
- *Hemiberlesia palmae*  
  palm scale
- *Leucaspis ricae*  
  scale
- *Lindiaspis ferrisi*  
  scale
- *Parlatoria oleae*  
  olive scale
- *Pseudaulacaspis pentagona*  
  white peach scale
- *Selenaspis articulatus*  
  West Indian red scale

**Lepidoptera**
- *Euzophera pinguis*  
  bark borer

**Mite**

**Arachnida**

**Acarina**

**Eriophyidae**
- *Aceria cretica*  
  mite
- *Aceria oleae*  
  olive mite
- *Aculus benakii*  
  olive yellow spot mite
- *Aculus olearius*  
  olive mite
- *Ditrymacus athiasellus*  
  olive mite
- *Eriophyes oleae*  
  olive bud mite
- *Eriophyes olivi*  
  olive mite
- *Oxycenus maxwelli*  
  olive leaf and flower mite
- *Oxycenus niloticus*  
  olive leaf and flower mite
- *Oxycenus noloticus*  
  olive leaf and flower mite
- *Tegonotus hassani*  
  olive rust mite
### Tenuipalpidae
- *Brevipalpus chalkidicus*: false spider mite
- *Brevipalpus macedonicus*: false spider mite
- *Brevipalpus oleae*: false spider mite
- *Brevipalpus olearius*: false spider mite
- *Brevipalpus olivicola*: false spider mite
- *Rocioella macfarlanei*: false spider mite
- *Tenuipalpus caudatus*: false spider mite

### Tetranychidae
- *Eotetranychus lewisi*: big beaked plum mite

### Fungus

#### Ascomycota

##### Dothideales
- **Capnodiacae**
  - *Capnodium elaeophilum*: sooty mould
- **Elsinoaceae**
  - *Elsinoe oleae*: olive mould
- **Unknown Dothideales**
  - *Massariella oleae*: bark canker
  - *Massariella zambettakiana*: canker
  - *Zukalia purpurea*: black mildew

##### Xylariaceae
- *Xylaria sicula*: root rot

#### Basidiomycota

##### Agaricales
- **Agaricaceae**
  - *Armillaria mellea* (anamorph *Rhizomorpha subcorticalis*): armillaria root rot

##### Boletales
- **Paxillaceae**
  - *Omphalotus olearius*: wood rot

##### Ganodermatales
- **Ganoderma lucidum** (anamorph *Polyporus lucidus*): wood rot

##### Hymenochaetales
- **Hymenochaetaceae**
  - *Phellinus igniarius*: wood rot

##### Poriales
- **Coriolaceae**
  - *Fomes fomentarius*: wood decay
  - *Fomes fulvus*: wood rot
  - *Fomes salcinus*: wood rot
  - *Fomes torulosus*: wood rot
  - *Fomes yucatonensis*: wood rot
- **Polyporaceae**
  - *Polyporus biennis*: wood rot
  - *Polyporus oleae*: wood rot

##### Stereales
- **Sistotremataceae**
  - *Trechispora brinkmanii* (anamorph *Phymatotrichopsis omnivorum*): Texas root rot

#### Mitosporic Fungi (Coelomycetes)

##### Sphaeropsidales
- **Sphaeroidaceae**
  - *Camarosporium dalmatica*: brown spot
  - *Cytospora oleina*: canker
  - *Macrospora dalmatica*: fruit rot
  - *Phoma incompta*: stem blight
  - *Phyllosticta oleae*: phyllosticta leaf spot
  - *Septoria obesa*: leaf spot
### Septoria oleae
- Leaf spot

### Septoria oleagina
- Leaf spot

### Septoria serpentaria
- Leaf spot

### Sphaeropsis dalmatica
- Stem gall

### Sphaeropsis oleae
- Stem gall

### Unknown Coelomycetes

### Cylindrosporium olivae
- Leaf spot

### Bacterium

#### Pseudomonadaceae

Pseudomonas syringae pv. garcae
- Twig blight

### Virus

- Cherry leaf roll virus [strains not in New Zealand]
- Olive latent 1 virus
- Olive latent 2 virus
- Olive latent ringspot virus
- Olive leaf yellowing-associated virus
- Olive vein yellow virus
- Strawberry latent ringspot virus [strains not in New Zealand]

### Phytoplasma

- Olive witches’ broom phytoplasma

### Disease of unknown aetiology

- Infectious yellows
- Leaf maformation
- Olive sickle leaf disease
- Olive yellow mosaic disease
- Olive yellow mottling and decline
- Partial paralysis
NON-REGULATED PESTS (non-actionable)

Insect
Insecta
Coccidae
Saissetia coffeae hemispherical scale
Saissetia oleae black scale
Diaspididae
Aonidiella auranti California red scale
Aspidiotus nerii oleander scale
Hemiberlesia lataniae latania scale
Lepidosaphes ulmi oystershell scale
Lindingaspis rossi Ross' black scale
Margarodidae
Icerya purchasi cottony cushion scale

Mite
Arachnida
Acarina
Eriophyidae
Phyllocoptera oleivora citrus rust mite
Tenuipalpidae
Brevipalpus phoenicis passionvine mite

Fungus
Ascomycota
Dothideales
Botryosphaeriaceae Botryosphaeria dothidea (anamorph: Fusicoccum aesculi) canker
Erysiphales
Erysipheaceae
Leveillula taurica (anamorph: Oidiopsis sicula) powdery mildew
Eurotiales
Trichocomaceae
Eurotium herbariorum (anamorph: Aspergillus glaucus) mould
Hypocreales
Hypocreaceae
Gibberella avenacea (anamorph: Fusarium avenaceum) fusarium stem canker
Gibberella fujikuroi (anamorph: Fusarium fujikuroi) fusarium rot
Nectria haematococca (anamorph: Fusarium solani) fusarium fruit rot
Phyllachorales
Phyllocladaceae
Gomasserella cingulata (anamorph: Colletotrichum gloeosporioides) bitter rot
Saccharomycetales
Dipodascaceae
Dipodascus geotrichum (anamorph: Geotrichum candidum) sour rot
Xylariales
Xylariaceae
Rosellinia necatrix (anamorph: Dematophora necatrix) white root rot
Basidiomycota
Hymenochaetales
Hymenochaetaceae
Phellinus punctatus heart rot
Poriales
Coriolaceae
Trametes versicolor white rot
Schizophyllales
    Schizophyllaceae
        Schizophyllum commune
        agaric stem rot

Stereales
    Atheliaceae
        Athelia rolfsii (anamorph Sclerotium rolfsii)
        Rolf's disease
    Stereaceae
        Stereum hirsutum
        black measles

Mitosporic Fungi (Coelomycetes)
    Sphaeropsidales
        Sphaerioidaceae
            Macrophomina phaseolina
            ashy stem blight
    Unknown Coelomycetes
        Unknown Coelomycetes
        Colletotrichum acutatum
        anthracnose

Mitosporic Fungi (Hyphomycetes)
    Hyphomycetales
        Dematiaceae
            Mycocentrospora cladosporioides
            fruit spot
            Spilochaeta oleagina
            peacock spot
        Moniliaceae
            Aspergillus niger
            aspergillus rot
            Penicillium chrysogenum
            penicillium mould rot
            Penicillium expansum
            blue mould rot
            Verticillium albo-atrum
            verticillium wilt
            Verticillium dahliae
            verticillium wilt
    Tuberculariales
        Tuberculariaceae
            Fusarium oxysporum
            leaf spot
            Fusarium roseum
            fusarium rot
    Unknown Hyphomycetes
        Unknown Hyphomycetes
        Trichotheicum roseum
        pink rot

Oomycota
    Pythiales
        Pythiaceae
            Phytophthora cambivora
            -
            Phytophthora cinnamomi
            phytophthora crown and root rot

Zygomycota: Zygomycetes
    Mucorales
        Mucoraceae
            Rhizopus stolonifer
            rhizopus soft rot

Bacterium
    Pseudomonadaceae
        Pseudomonas savastanoi pv. neri
        olive knot
        Pseudomonas savastanoi pv. savastanoi
        olive knot
       Ralstonia solanacearum
        bacterial wilt
    Rhizobiaceae
        Agrobacterium tumefaciens
        crown gall

Virus
    Arabis mosaic virus
    -
    Cherry leaf roll virus [red raspberry strain]
    -
    Cucumber mosaic virus
    -
    Strawberry latent ringspot virus [Prunus-infecting strain]
    -
## Inspection, Testing and Treatment Requirements for *Olea*

<table>
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<tr>
<th>ORGANISM TYPES</th>
<th>MAF-ACCEPTED METHODS (See notes below)</th>
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<td><strong>Insects</strong></td>
<td>Visual inspection AND approved insecticide treatments (Refer to section 2.2.1.6 of the basic conditions) [cuttings only].</td>
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<tr>
<td><strong>Mites</strong></td>
<td>Visual inspection AND approved miticide treatments (Refer to section 2.2.1.6 of the basic conditions) [cuttings only] or binocular microscope inspection in PEQ [plants in tissue culture only].</td>
</tr>
<tr>
<td><strong>Fungi</strong></td>
<td>Growing season inspection in PEQ for disease symptom expression.</td>
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<td><strong>Bacterium</strong></td>
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<tr>
<td><em>Pseudomonas syringae</em> pv. <em>garcae</em></td>
<td>Growing season inspection in PEQ for disease symptom expression.</td>
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<tr>
<td><strong>Virus</strong></td>
<td></td>
</tr>
<tr>
<td><em>Cherry leaf roll virus</em> [strains not in New Zealand]</td>
<td>ELISA or PCR AND herbaceous indicators Ca, Cq and Nb AND TEM.</td>
</tr>
<tr>
<td><em>Olive latent 1 virus</em></td>
<td>Herbaceous indicators Ca, Cq and Nb AND TEM.</td>
</tr>
<tr>
<td><em>Olive latent 2 virus</em></td>
<td>Herbaceous indicators Ca, Cq and Nb AND TEM.</td>
</tr>
<tr>
<td><em>Olive latent ringspot virus</em></td>
<td>Herbaceous indicators Ca and Cq AND TEM.</td>
</tr>
<tr>
<td><em>Olive leaf yellowing-associated virus</em></td>
<td>TEM.</td>
</tr>
<tr>
<td><em>Olive vein yellow virus</em></td>
<td>TEM.</td>
</tr>
<tr>
<td><em>Strawberry latent ringspot virus</em> [strains not in New Zealand]</td>
<td>ELISA or PCR AND herbaceous indicators Ca and Cq AND TEM.</td>
</tr>
<tr>
<td><strong>Diseases of unknown aetiology</strong></td>
<td>Growing season inspection in PEQ for disease symptom expression.</td>
</tr>
</tbody>
</table>

### Notes:
1. The unit for testing is an individual plantlet or cutting. Each single plantlet and cutting must be labelled individually and tested separately.
2. Transmission electron microscopy (TEM) – each plant must be observed under the TEM for virus particles.
3. Indicator hosts: *Chenopodium amaranticolor* (Ca), *Chenopodium quinoa* (Cq), and *Nicotiana benthamiana* (Nb). At least two plants of each indicator species must be used in mechanical inoculation tests.
4. Indicator plants must be grown under appropriate temperatures and must be shaded for 24 hrs prior to inoculation. Maintain post-inoculated indicator species under appropriate glasshouse conditions for at least 4 weeks. Inspect inoculated indicator plants at least twice per week for symptoms of virus infection.
5. Enzyme linked immunosorbent assay (ELISA); Polymerase chain reaction (PCR).
6. Testing must be carried out on *Olea* plants while they are in active growth. For bioassay and ELISA, plants shall be sampled from at least two positions including a young, fully expanded leaf at the top of the plant and an older leaf from a midway position.
7. PCR and ELISA must be validated using positive controls/reference material prior to use in quarantine testing.
8. Positive and negative controls must be used in ELISA tests.
9. Positive and negative controls (including a blank water control) must be used in PCR. Ideally positive internal controls and a negative plant control should be used. Internal controls in PCR tests are important to avoid the risk of false negatives.

10. Inspect *Olea* plants for signs of pest and disease at least twice per week during periods of active growth and once per week during dormancy.

11. With prior notification, MAF will accept other internationally recognised testing methods.

**References**


**Paeonia (herbaceous species)**

**Note:** These entry conditions only apply to species in the Plants Biosecurity Index listed under Import Specifications for Nursery Stock as “see 155.02.06 under *Paeonia* (herbaceous)”.

**GENERAL CONDITIONS:**

**Countries:** Australia, Austria, Belgium, Denmark, Finland, France, Germany, Greece, Ireland, Italy, Luxembourg, The Netherlands, Portugal, Spain, Sweden, United Kingdom, United States of America

**Quarantine Pests:** *Cronartium flaccidium; Phymatotrichopsis omnivora*

**Entry Conditions:** *Basic*; with variations and additional conditions as specified below:

For Dormant Tubers:

**PEQ:** Level 1 or Level 2 (see below)

**Minimum Period:** 3 months

**Additional Declaration(s):**

1. "The dormant tubers have been sourced from a “Pest free area” or “Pest free place of production”, free from *Cronartium flaccidium*.

2. "The dormant tubers have been sourced from a “Pest free area”, free from *Phymatotrichopsis omnivora*.

**OR**

(i) "The dormant bulbs have been sourced from a “Pest free place of production”, free from *Phymatotrichopsis omnivora*.

AND

(ii) the consignment must be treated for fungi as described in Section 2.2.1.7 “Pesticide treatments for dormant bulbs”. If satisfied that the pre-shipment activities have been undertaken, the exporting country NPPO must confirm this by recording the treatments applied in the “Disinfestation and/or Disinfection Treatment” section of the phytosanitary certificate.

AND

(iii) Post-entry quarantine: Upon arrival in New Zealand the dormant bulbs will require a period of at least 3 months in Level 2 post-entry quarantine.
Note: The entry conditions in this schedule only apply to species in the Plants Biosecurity Index listed under Import Specifications for Nursery Stock as “see 155.02.06 under Paeonia (tree species)”, and are additional to those specified in sections 1, 2 and 3 of the import health standard.

GENERAL CONDITIONS:

Countries: Australia, Austria, Belgium, Denmark, Finland, France, Germany, Greece, Ireland, Italy, Luxembourg, The Netherlands, Portugal, Spain, Sweden, United Kingdom, United States of America

Quarantine Pests: Cronartium flaccidum

Entry Conditions: Basic; with variations and additional conditions as specified below:

A. For Whole Plants:

PEQ: Level 1
Minimum Period: 3 months
Isolation: open ground - 400m from any Pinus tree

Additional Declarations:

1. "Cronartium flaccidum is not known to occur in __ (the country or state where the plants were grown) ___".

2. "The plants have been dipped in propiconazole at the rate of 0.5g a.i. per litre of water".

B. For Tissue Cultures:

As for Standard Entry Conditions for Tissue Cultures - see Section 2.2.2;
**Papaver somniferum**

**Note:** The entry conditions in this schedule only apply to species in the Plants Biosecurity Index listed under Import Specifications for Nursery Stock as “see 155.02.06 under *Papaver somniferum*”, and are additional to those specified in sections 1, 2 and 3 of the import health standard.

**GENERAL CONDITIONS:**

**Countries:** All

**Entry Conditions:** Basic; with variations and additional conditions as specified below:

**Import permit:** an import permit is required. Before applying for an import permit, the importer must obtain written approval to import from:

- Director General of Health
- Ministry of Health
- PO Box 5013
- Wellington
- Attention: Advisor, Controlled Drug Licensing

Telephone: 04 496 2438
Note: The entry conditions in this schedule only apply to species in the Plants Biosecurity Index listed under Import Specifications for Nursery Stock as “see 155.02.06 under Paulownia”, and are additional to those specified in sections 1, 2 and 3 of the import health standard.

GENERAL CONDITIONS:

Countries: Australia

Quarantine Pests: Witches broom phytoplasma

Entry Conditions: Basic; with variations and additional conditions as specified below:

A. For Whole Plants:
   PEQ: Level 2
   Minimum Period: 3 months
   Additional Declaration:
   "Witches broom phytoplasma is not known to occur in _____ (the country or state where the plants were grown) ______".

B. For Tissue Cultures:
   As for Standard Entry Conditions for Tissue Cultures - see Section 2.2.2;
   PLUS:
   Additional Declaration:
   "The cultures have been derived from parent stock tested and found free of Witches broom phytoplasma".
Persea

Note: The entry conditions in this schedule only apply to species in the Plants Biosecurity Index listed under Import Specifications for Nursery Stock as “see 155.02.06 under Persea”, and are additional to those specified in sections 1, 2 and 3 of the import health standard.

1. Type of Persea nursery stock approved for entry into New Zealand
Cuttings (dormant); Plants in tissue culture

2. Pests of Persea
Refer to the pest list.

3. Entry conditions for:
3.1 Persea cuttings and tissue culture from any country
(i) Documentation
Phytosanitary certificate: a completed phytosanitary certificate issued by the NPPO of the exporting country must accompany all Persea nursery stock exported to New Zealand.
Import permit: an import permit is required.

(ii) Phytosanitary requirements
Before a phytosanitary certificate is issued, the NPPO of the exporting country must be satisfied that the following activities required by MAF have been undertaken.

The Persea cuttings / plants in tissue culture [choose ONE option] have been:
- inspected in accordance with appropriate official procedures and found to be free of any visually detectable regulated pests.
AND
- sourced from a “Pest free area” or “Pest free place of production”, free from Avocado cryptic virus 3, Potato spindle tuber viroid and Avocado black streak disease.
AND
- treated for regulated insects and mites as described in section 2.2.1.6 within 7 days prior to shipment [cuttings only].
AND
- held in a manner to ensure that infestation/reinfestation does not occur following certification.

(iii) Additional declarations to the phytosanitary certificate
If satisfied that the pre-shipment activities have been undertaken, the exporting country NPPO must confirm this by recording the treatments applied in the “Disinfestation and/or Disinfection Treatment” section [cuttings only] and by providing the following additional declaration to the phytosanitary certificate:

"The Persea cuttings / plants in tissue culture [choose ONE option] have been:
- sourced from a “Pest free area” and/or a “Pest free place of production”, free from Avocado cryptic virus 3, Potato spindle tuber viroid and Avocado black streak disease."
(iv) Post-entry quarantine

**PEQ**: All *Persea* nursery stock must be imported under permit into post-entry quarantine in a level 3 quarantine facility accredited to MAF standard PBC-NZ-TRA-PQCON Specification for the registration of a plant quarantine or containment facility, and operator.

**Quarantine Period and Inspection, Testing and Treatment Requirements**: The nursery stock will be grown for a minimum period of 12 months in post-entry quarantine and will be inspected, treated and/or tested for regulated pests as specified in the “Inspection, Testing and Treatment Requirements for *Persea*”, at the expense of the importer. Twelve months is an indicative minimum quarantine period and this period may be extended if material is slow growing, pests are detected, or treatments/testing are required.
Pest List for *Persea*

**REGULATED PESTS (actionable)**

**Insect**

**Insecta**

**Coleoptera**

*Coleoptera*

**Chrysomelidae**

- *Monolepta apicalis*  
  monolepta beetle
- *Monolepta australis*  
  red-shouldered leaf beetle

**Curculionidae**

- *Copturus aguacatae*  
  branch boring weevil
- *Diaprepes abbreviatus*  
  citrus weevil
- *Heilipus squamosus*  
  -
- *Naupactus xanthographus*  
  fruit tree weevil

**Hemiptera**

**Coreidae**

- *Amblypelta lutescens*  
  banana spotting bug
- *Amblypelta nitida*  
  fruit-spotting bug
- *Pseudotheraptus wayi*  
  coreid bug

**Lygaeidae**

- *Nysius ericae*  
  false chinch bug

**Tingidae**

- *Pseudacysta perseae*  
  avocado lace bug

**Homoptera**

**Aleyrodidae**

- *Aleurocanthus woglumi*  
  citrus blackfly
- *Parabemisia myricae*  
  Japanese bayberry whitefly
- *Paraleurodes minei*  
  whitefly
- *Paraleurodes perseae*  
  plumeria whitefly
- *Tetraleurodes perseae*  
  whitefly
- *Trialeurodes floridensis*  
  avocado whitefly

**Coccidae**

- *Ceroplastes floridensis*  
  Florida wax scale
- *Ceroplastes rubens*  
  red wax scale
- *Ceroplastes rusci*  
  fig wax scale
- *Chloropulvinaria psidii*  
  guava scale
- *Protopulvinaria pyriformis*  
  pyriform scale
- *Pulvinaria mammeae*  
  -

**Diaspididae**

- *Aonidiella orientalis*  
  oriental yellow scale
- *Aspidiotus destructor*  
  coconut scale
- *Chrysomphalus aonidum*  
  Florida red scale
- *Chrysomphalus dictyospermi*  
  dictyospermum scale
- *Fiorinia fioriniae*  
  florinia scale
- *Pinnaspis strachani*  
  hibiscus snow scale
- *Selenaspidus articulatus*  
  West Indian red scale

**Margarodidae**

- *Icerya seychellarum*  
  Seychelles scale

**Pseudococcidae**

- *Dysmicoccus brevipes*  
  pineapple mealybug
- *Ferrisia virgata*  
  striped mealybug
- *Nipaecoccus nipaee*  
  coconut mealybug
- *Planococcus citri*  
  citrus mealybug

**Psyllidae**

- *Trioza aquacate*  
  psyllid
- *Trioza anceps*  
  psyllid
- *Trioza godoyae*  
  psyllid
<table>
<thead>
<tr>
<th>Insects</th>
<th>Scientific Name</th>
<th>Common Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>Trioza perseae</td>
<td>psyllid</td>
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</tr>
<tr>
<td>Formicidae</td>
<td>Atta cephalotes</td>
<td>leaf-cutting ant</td>
</tr>
<tr>
<td>Lepidoptera</td>
<td>Ascotis selenaria</td>
<td>mugwort looper</td>
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<td></td>
<td>Sabulodes aegrotata</td>
<td>omnivorous looper</td>
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<td>Hymenoptera</td>
<td>Pyrhogyne chalybea</td>
<td>swift moth</td>
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<tr>
<td>Hesperiidae</td>
<td>Peridroma margaritosa</td>
<td>-</td>
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<tr>
<td></td>
<td>Prodenia eridania</td>
<td>-</td>
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<tr>
<td></td>
<td>Pseudoplusia includens</td>
<td>soybean looper</td>
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<tr>
<td>Geometridae</td>
<td>Stenota catenifer</td>
<td>stenomid moth</td>
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<tr>
<td>Noctuidae</td>
<td>Cryptoblabes gnidiella</td>
<td>Christmas berry webworm</td>
</tr>
<tr>
<td></td>
<td>Siericta albifasciata</td>
<td>-</td>
</tr>
<tr>
<td>Tortricidae</td>
<td>Amorbia cuneana</td>
<td>leafroller</td>
</tr>
<tr>
<td></td>
<td>Amorbia emigratella</td>
<td>Mexican leafroller</td>
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<tr>
<td></td>
<td>Amorbia essigana</td>
<td>leafroller</td>
</tr>
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<td></td>
<td>Argyrotaenia citrana</td>
<td>orange tortrix</td>
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<td></td>
<td>Cacocinompha pronubana</td>
<td>carnation leafroller</td>
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<td>Cryptophlebia leucotreta</td>
<td>false codling moth</td>
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<td>Homona spargotis</td>
<td>avocado leafroller</td>
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<td>Isotenes miserana</td>
<td>orange fruitborer</td>
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<td>Platynota stultana</td>
<td>omnivorous leafroller</td>
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<td>Thysanoptera</td>
<td>Retithrips syriacus</td>
<td>black vine thrips</td>
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<td>Selenothrips rubrocinctus</td>
<td>red-banded thrips</td>
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<td>Mite</td>
<td>Arachnida</td>
<td>Acarina</td>
</tr>
<tr>
<td>Tetranychidae</td>
<td>Oligonychus coffeae</td>
<td>tea red spider mite</td>
</tr>
<tr>
<td></td>
<td>Oligonychus perseae</td>
<td>spider mite</td>
</tr>
<tr>
<td></td>
<td>Oligonychus punicae</td>
<td>avocado brown mite</td>
</tr>
<tr>
<td></td>
<td>Oligonychus yothersi</td>
<td>avocado red mite</td>
</tr>
<tr>
<td>Fungus</td>
<td>Ascomycota</td>
<td>Hypocreales</td>
</tr>
<tr>
<td></td>
<td>Hypocreaceae</td>
<td>Nectria pseudotrichia (anamorph Tubercularia lateritia)</td>
</tr>
<tr>
<td></td>
<td>Phyllocloraleae</td>
<td>Glomerella cingulata var. minor (anamorph Colletotrichum gloeosporioides var. minus)</td>
</tr>
<tr>
<td>Xylariales</td>
<td>Xyliaceae</td>
<td>Rosellinia bunodes</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Rosellinia pepo</td>
</tr>
</tbody>
</table>
Oomycota

Pythiales

Pythiaceae

*Phytophthora palmivora*  \(\text{black rot}\)

mitosporic fungi (Coelomycetes)

Sphaeropsidales

Sphaerioidaceae

*Phomopsis perseae*  \(\text{fruit rot}\)

mitosporic fungi (Hyphomycetes)

Hyphomycetales

Dematiaceae

*Pseudocercospora purpurea*  \(\text{cercospora spot blotch}\)

unknown Hyphomycetes

unknown Hyphomycetes

*Stilbella cinnabarina*  -

Virus

*Avocado cryptic virus 3*  -

Viroid

*Avocado sunblotch viroid [strains not in New Zealand]*  -

*Potato spindle tuber viroid*  -

Disease of unknown aetiology

*Avocado black streak*  -
**NON-REGULATED PESTS (non-actionable)**

### Insect
#### Insecta

#### Coleoptera
- Curculionidae
  - *Asynonychus cervinus*  
    Fuller's rose weevil

#### Hemiptera
- Pentatomidae
  - *Nezara viridula*  
    green vegetable bug

#### Homoptera
- Aleyrodidae
  - *Trialeurodes vaporariorum*  
    greenhouse whitefly

#### Aphididae
- *Aphis gossypii*  
  cotton aphid
- *Aphis spiraecola*  
  spirea aphid

#### Coccidae
- *Ceroplastes ceriferus*  
  Indian white wax scale
- *Ceroplastes destructor*  
  white wax scale
- *Coccus hesperidum*  
  brown soft scale
- *Parasaissetia nigra*  
  nigra scale
- *Parthenolecanium corni*  
  European fruit scale
- *Saissetia coffeae*  
  hemispherical scale
- *Saissetia oleae*  
  black scale

#### Diaspididae
- *Aonidiella aurantii*  
  California red scale
- *Aspidiotus nerii*  
  oleander scale
- *Hemiberlesia lataniae*  
  latania scale
- *Hemiberlesia rapax*  
  greedy scale

#### Pseudococcidae
- *Pseudococcus calceolariae*  
  citrophilus mealybug
- *Pseudococcus longispinus*  
  longtailed mealybug

#### Thysanoptera
#### Thripidae
- *Heliothrips haemorrhoidalis*  
  greenhouse thrips

### Mite
#### Arachnida
#### Acarina
- Phytoseiidae
  - *Amblyseius limonicus*  
    [Animals Biosecurity]
- *Tarsonemidae*
  - *Polyphagotarsonemus latus*  
    broad mite
- *Tetranychidae*
  - *Eotetranychus sexmaculatus*  
    sixspotted mite

### Fungus
#### Ascomycota
#### Dothideales
- Botryosphaeriaceae
  - *Botryosphaeria dothidea*  
    (anamorph *Fusicoccum aesculi*)  
    canker
  - *Botryosphaeria obtusa*  
    (anamorph *Sphaeropsis malorum*)  
    blight
  - *Botryosphaeria parva*  
    (anamorph *Fusicoccum parvum*)  
    canker
  - *Botryosphaeria rhodina*  
    (anamorph *Lasiodiplodia theobromae*)  
    gommosis

#### Hypocreales
#### Hypocreaceae
- *Calonectria kyotensis*  
  (anamorph *Cylindrocladium scoparium*)  
  root and stem rot

#### Xylariales
Xylariaceae  
*Rosellinia necatrix* (anamorph *Dematophora necatrix*) white root rot

Oomycota

Pythiales

Pythiaceae  
*Phytophthora cinnamomi* phytophthora crown and root rot

mitosporic fungi (Coelomycetes)

Sphaeropsidales

Sphaerioidaceae  
*Dothiorella aromatica* stem-end rot

*Fusicoccum luteum* bunch rot

*Nattrassia mangiferae* stem-end rot

unknown Coelomycetes

unknown Coelomycetes  
*Colletotrichum acutatum* anthracnose

*Pestalotiopsis versicolor* pestalotiopsis rot

*Sphaceloma perseae* scab

mitosporic fungi (Hyphomycetes)

Hyphomycetales

Dematiaceae  
*Cladosporium cladosporioides* cladosporium leaf spot

Moniliaceae  
*Verticillium dahliae* verticillium wilt

Bacterium

Pseudomonadaceae  
*Pseudomonas syringae* pv. *syringae* bacterial soft rot

Rhizobiaceae  
*Rhizobium radiobacter* crown gall

Virus  
*Tobacco mosaic virus* -

Viroid  
*Avocado sunblotch viroid* [mild strain] -

Alga

Chlorophyta

Trentepohliales

Chroolepidaceae  
*Cephaleuros virescens* algal leaf spot
## Inspection, Testing and Treatment Requirements for *Persea*

<table>
<thead>
<tr>
<th>ORGANISM TYPES</th>
<th>MAF-ACCEPTED METHODS (See notes below)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Insects</strong></td>
<td>Visual inspection AND approved insecticide treatments (Refer to section 2.2.1.5 of the basic conditions) [cuttings only].</td>
</tr>
<tr>
<td><strong>Mites</strong></td>
<td>Visual inspection AND approved miticide treatments (Refer to section 2.2.1.5 of the basic conditions) [cuttings only] or binocular microscope inspection in PEQ [plants in tissue culture only].</td>
</tr>
<tr>
<td><strong>Fungi</strong></td>
<td>Growing season inspection in PEQ for disease symptom expression.</td>
</tr>
<tr>
<td><strong>Virus</strong></td>
<td></td>
</tr>
<tr>
<td><em>Avocado cryptic virus</em> 3</td>
<td>Pest free area or Pest free place of production AND Growing season inspection in PEQ for disease symptom expression.</td>
</tr>
<tr>
<td><strong>Viroid</strong></td>
<td></td>
</tr>
<tr>
<td><em>Avocado sunblotch viroid</em> [strains not in New Zealand]</td>
<td>Hybridisation or PAGE or PCR (Schnell <em>et al</em>. 1997) (two sets).</td>
</tr>
<tr>
<td><em>Potato spindle tuber viroid</em></td>
<td>Pest free area or Pest free place of production AND Growing season inspection in PEQ for disease symptom expression.</td>
</tr>
<tr>
<td><strong>Disease of unknown aetiology</strong></td>
<td>Pest free area or Pest free place of production AND Growing season inspection in PEQ for disease symptom expression.</td>
</tr>
</tbody>
</table>

### Notes:

1. The unit for testing is an individual plantlet or cutting. Each single plantlet and cutting must be labelled individually and tested separately.
2. Testing must be carried out on *Persea* plants while they are in active growth.
3. Polymerase chain reaction (PCR), Polyacrylamide gel electrophoresis (PAGE) and hybridisation must be validated using positive controls prior to use in quarantine testing. Positive and negative controls (including a blank water control) must be used in molecular tests. Ideally positive internal controls and a negative plant control should be used.
4. Inspect *Persea* plants for signs of pest and disease at least twice per week during periods of active growth and once per week during dormancy.
5. With prior notification, MAF will accept other internationally recognised testing methods.

### References

Note: The entry conditions in this schedule only apply to species in the Plants Biosecurity Index listed under Import Specifications for Nursery Stock as “see 155.02.06 under Philodendron”, and are additional to those specified in sections 1, 2 and 3 of the import health standard.

GENERAL CONDITIONS:

Countries: All

Entry Conditions: Basic; with variations and additional conditions as specified below:

A. For Cuttings and Whole Plants:
PEQ: Level 2
Minimum Period: 3 months

B. For Plants in Tissue Culture:

As for Standard Entry Conditions for Tissue Cultures - see Section 2.2.2.
**Note:** The entry conditions in this schedule only apply to species in the Plants Biosecurity Index listed under Import Specifications for Nursery Stock as “see 155.02.06 under *Phoenix*”, and are additional to those specified in sections 1, 2 and 3 of the import health standard.

**GENERAL CONDITIONS:**

**Countries:** Australia, Hawaii, mainland USA

**Quarantine Pests:** Lethal yellowing; cadang-cadang; Fusarium wilt

**Entry Conditions:** Basic; with variations and additional conditions as specified below:

**PEQ:** Level 2

**Minimum Period:** 3 months

**Height Limit:** Plants must not exceed 1.5m in height

**Additional Declaration:**

"Cadang cadang, lethal yellowing and *Fusarium oxysporum* f.sp. *canariensis* are not known to occur in ______ (the country or state where the plants were grown) ______."
Note: The entry conditions in this schedule only apply to species in the Plants Biosecurity Index listed under Import Specifications for Nursery Stock as “see 155.02.06 under Photinia”, and are additional to those specified in sections 1, 2 and 3 of the import health standard.

GENERAL CONDITIONS:

Countries: All

Quarantine Pests: Gymnosporangium spp.

Entry Conditions: Basic; with variations and additional conditions as specified below:

A. For Whole Plants:
PEQ: Level 2
Minimum Period: 3 months

Additional Declarations:
1. "Gymnosporangium spp. are not known to occur on _____ (name of plant species) _____ in _____ (the country or state where the plants were produced) _____ ".

OR
"The plants were from a crop inspected during the growing season and no rust diseases were detected".
2. "The plants have been dipped in propiconazole at the rate of 0.5g a.i. per litre of water, prior to export".

B. For Tissue Cultures:
As for Standard Entry Conditions for Tissue cultures - see Section 2.2.2.
Planera

**Note:** The entry conditions in this schedule only apply to species in the Plants Biosecurity Index listed under Import Specifications for Nursery Stock as “see 155.02.06 under *Planera*”, and are additional to those specified in sections 1, 2 and 3 of the import health standard.

**GENERAL CONDITIONS:**

**Countries:** All

**Quarantine Pests:** Elm mosaic virus, Elm phloem necrosis

**Entry Conditions:** Basic; with variations and additional conditions as specified below:

**For Whole Plants and Tissue Cultures:**

**PEQ:** Level 3

**Minimum Period:** 3 months
Note: The entry conditions in this schedule only apply to species in the Plants Biosecurity Index listed under Import Specifications for Nursery Stock as “see 155.02.06 under Polyscias”, and are additional to those specified in sections 1, 2 and 3 of the import health standard.

GENERAL CONDITIONS:

Countries: All

Entry Conditions: Basic; with variations and additional conditions as specified below:

A. For Cuttings and Whole Plants:
PEQ: Level 2
Minimum Period: 3 months

B. For Plants in Tissue Culture:

As for Standard Entry Conditions for Tissue Cultures - see Section 2.2.2.
**Poncirus**

**Note:** The entry conditions in this schedule only apply to species in the Plants Biosecurity Index listed under Import Specifications for Nursery Stock as “see 155.02.06 under Poncirus”, and are additional to those specified in sections 1, 2 and 3 of the import health standard.

1. **Type of Poncirus nursery stock approved for entry into New Zealand**
   - Cuttings (dormant); Plants in tissue culture

2. **Pests of Poncirus**
   - Refer to the pest list.

3. **Entry conditions for:**
   3.1 **Poncirus cuttings from offshore MAF-accredited facilities (quarantine stations)**
   An offshore accredited facility is a facility that has been accredited to the MAF Standard PIT.OS.TRA.ACPQF to undertake phytosanitary activities. For Poncirus, the accredited facility operator must also have an agreement with MAF on the phytosanitary measures to be undertaken for Poncirus.
   (i) **Documentation**
   - **Import permit is required**
   - **Phytosanitary certificate:** a completed phytosanitary certificate issued by the exporting country national plant protection organisation (NPPO) must accompany all Poncirus cuttings exported to New Zealand.
   (ii) **Inspection, Testing and Treatments of the consignment**
   - The inspection, testing and treatment requirements for specified regulated pests must be undertaken at the accredited facility as specified in the agreement between MAF and the accredited facility operator. Refer to Poncirus Inspection, Testing and Treatment Requirements following the Poncirus pest list.
   (iii) **Phytosanitary requirements**
   - Before a phytosanitary certificate is to be issued, the exporting country NPPO must be satisfied that the following activities required by MAF have been undertaken.
   - The Poncirus cuttings have been:
     - inspected in accordance with appropriate official procedures and found to be free of any visually detectable regulated pests specified by MAF (refer to the pest list).
     - sourced from either mother plants that have been kept in insect proof plant houses or from open ground mother plants.
     - held and tested for/classified free from specified regulated pests at a MAF-accredited facility.
     - held in a manner to ensure that infestation/reinfestation does not occur, following testing (and certification) at the accredited facility.
   (iv) **Additional declarations to the phytosanitary certificate**
If satisfied that the pre-shipment activities have been undertaken, the exporting country NPPO must confirm this by providing the following additional declarations to the phytosanitary certificate:

"The *Poncirus* cuttings in this consignment have been:
- inspected in accordance with appropriate official procedures and found to be free of any visually detectable regulated pests specified by MAF, and to conform with New Zealand’s current phytosanitary requirements.
AND
- sourced from mother plants that have been kept in insect proof plant houses/sourced from open ground mother plants [choose one].
AND
- held and tested for/classified free from specified regulated pests at the accredited facility as required in the agreement between MAF and the accredited facility operator.
AND
- held in a manner to ensure infestation/reinfestation does not occur following testing (and certification), at the accredited facility."

(v) **Post-entry quarantine**

**PEQ:** Level 2  
**Quarantine Period:** This is the time required to complete inspections and/or indexing to detect regulated pathogens. Indicative minimum quarantine periods are: 6 months for *Poncirus* cuttings sourced from mother plants that have been kept in insect proof plant houses, or 16 months for *Poncirus* cuttings sourced directly from open ground mother plants. The quarantine period may be extended if material is slow growing, pests are detected, or treatments/testing are required.

3.2 *Poncirus* cuttings from non-accredited facilities in any country

(i) **Documentation**

**Import permit is required**

**Phytosanitary certificate:** a completed phytosanitary certificate issued by the exporting country national plant protection organisation (NPPO) must accompany all *Poncirus* cuttings exported to New Zealand.

(ii) **Phytosanitary requirements**

Before a phytosanitary certificate is to be issued, the exporting country NPPO must be satisfied that the following activities required by MAF have been undertaken.

The *Poncirus* cuttings have been:
- inspected in accordance with appropriate official procedures and found to be free of any visually detectable regulated pests specified by MAF (refer to the pest list).

(iii) **Additional declarations to the phytosanitary certificate**

If satisfied that the pre-shipment activities have been undertaken, the exporting country NPPO must confirm this by providing the following additional declarations to the phytosanitary certificate:

"The *Poncirus* cuttings in this consignment have been:
- inspected in accordance with appropriate official procedures and found to be free..."
of any visually detectable regulated pests specified by MAF, and to conform with the current phytosanitary requirements of MAF."

(iv) **Inspection, Testing and Treatments of the consignment**
Following inspection at the border, upon arrival, the *Poncirus* cuttings will be directed to a facility accredited to the MAF standard BMG-STD-TREAT: *Approval of Suppliers Providing Treatment of Imported Risk Goods and Forestry/Plant Related Material for Export*, to be sprayed/dipped in MAF-approved miticide and insecticides as described in section 2.2.1.6 of the basic conditions.

Following treatment, testing for specified regulated pests must be undertaken at a New Zealand Level 3 MAF-accredited facility. Refer to *Poncirus* Inspection, Testing and Treatment Requirements following the *Poncirus* pest list.

(v) **Post-entry quarantine**
**PEQ:** Level 3
**Quarantine Period:** This is the time required to complete inspections and/or indexing to detect regulated pathogens. 16 months is an indicative minimum quarantine period. The quarantine period may be extended if material is slow growing, pests are detected, or treatments are required.

3.3 *Poncirus* plants in tissue culture from offshore MAF-accredited facilities
An offshore accredited facility is a facility that has been accredited to the MAF Standard PIT.OS.TRA.ACPQF to undertake phytosanitary activities. For *Poncirus*, the accredited facility operator must also have an agreement with MAF on the phytosanitary measures to be undertaken for *Poncirus*.

(i) **Documentation**
**Import permit is required**
**Phytosanitary certificate:** a completed phytosanitary certificate issued by the exporting country national plant protection organisation (NPPO) must accompany all *Poncirus* tissue culture exported to New Zealand.

(ii) **Pest proof container and growing media for tissue culture**
Cultures imported in a growing media must have been grown in the vessel in which they are imported. The container must be rigid, and either clear plastic or clear glass. The tissue culture media must not contain charcoal.

(iii) **Inspection, Testing and Treatments of the consignment**
The inspection, treatment and testing requirements for specified pests must be undertaken at the accredited facility as specified in the arrangement between MAF and the accredited facility operator. Refer to *Poncirus* Inspection, Testing and Treatment Requirements following the *Poncirus* pest list.

(iv) **Phytosanitary requirements**
Before a phytosanitary certificate is to be issued, the exporting country NPPO must be satisfied that the following activities required by MAF have been undertaken.
The *Poncirus* tissue culture have been:
- inspected in accordance with appropriate official procedures and found to be free of any visually detectable regulated pests specified by MAF (refer to the pest list).

**AND**
- held and tested for/classified free from specified regulated pests at a MAF-accredited facility and,

**AND**
- held in a manner to ensure that infestation/reinfestation does not occur, following testing (and certification) at the accredited facility.

(v) *Additional declarations to the phytosanitary certificate*

If satisfied that the pre-shipment activities have been undertaken, the exporting country NPPO must confirm this by providing the following additional declarations to the phytosanitary certificate:

"The *Poncirus* tissue culture in this consignment have been:
- inspected in accordance with appropriate official procedures and found to be free of any visually detectable regulated pests specified by MAF, and to conform with New Zealand’s current phytosanitary requirements.

**AND**
- held and tested for/classified free from specified regulated pests at the accredited facility as specified in the agreement between MAF and the accredited facility operator.

**AND**
- held in a manner to ensure infestation/reinfestation does not occur following testing (and certification), at the accredited facility."

(vi) *Post-entry quarantine*

**PEQ:** Level 2

**Quarantine Period:** This is the time required to complete inspections and/or indexing to detect regulated pests. Six months is an indicative minimum quarantine period. The quarantine period may be extended if material is slow growing, pests are detected, or treatments are required.

3.4 *Poncirus* plants in tissue culture from non-accredited facilities in any country

(i) *Documentation*

**Import permit is required**

**Phytosanitary certificate:** a completed phytosanitary certificate issued by the exporting country national plant protection organisation (NPPO) must accompany all *Poncirus* nursery stock exported to New Zealand.

(ii) *Pest proof container and growing media for tissue culture*

Cultures imported in a growing media must have been grown in the vessel in which they are imported. The container must be rigid, and either clear plastic or clear glass. The tissue culture media must not contain charcoal.

(iii) *Phytosanitary requirements*

Before a phytosanitary certificate is to be issued, the exporting country NPPO must be satisfied that the following activities required by MAF have been undertaken.
The *Poncirus* tissue culture have been:
- inspected in accordance with appropriate official procedures and found to be free of any visually detectable regulated pests specified by MAF (refer to the pest list).

(iv) **Additional declarations to the phytosanitary certificate**
If satisfied that the pre-shipment activities have been undertaken, the exporting country NPPO must confirm this by providing the following additional declarations to the phytosanitary certificate:

"The *Poncirus* tissue culture in this consignment have been:
- inspected in accordance with appropriate official procedures and found to be free of any visually detectable regulated pests specified by MAF, and to conform with the current phytosanitary requirements of MAF."

(v) **Inspection, Testing and Treatments of the consignment**
Upon arrival, the inspection, treatment and testing requirements for specified pests must be undertaken at a New Zealand Level 3 MAF-accredited facility. Refer to *Poncirus* Inspection, Testing and Treatment Requirements following the *Poncirus* pest list.

(vi) **Post-entry quarantine**
**PEQ:**  Level 3

**Quarantine Period:** This is the time required to complete inspections and or indexing to detect regulated pests. 16 months is an indicative minimum quarantine period. The quarantine period may be extended if material is slow growing, pests are detected or treatments required.
## Pest List for *Poncirus*

### REGULATED PESTS (actionable)

<table>
<thead>
<tr>
<th>Insect Category</th>
<th>Pest Name</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Coleoptera</strong></td>
<td><em>Apate indistincta</em></td>
<td>shot-hole borer</td>
</tr>
<tr>
<td><strong>Coleoptera</strong></td>
<td><em>Apate terebrans</em></td>
<td>shot-hole borer</td>
</tr>
<tr>
<td><strong>Bostrichidae</strong></td>
<td><em>Agriulus alesi</em></td>
<td>flatheaded citrus borer</td>
</tr>
<tr>
<td><strong>Bostrichidae</strong></td>
<td><em>Agriulus auriventris</em></td>
<td>citrus flatheaded borer</td>
</tr>
<tr>
<td><strong>Buprestidae</strong></td>
<td><em>Anoplophora malasiaca</em></td>
<td>white-spotted longicorn beetle</td>
</tr>
<tr>
<td><strong>Buprestidae</strong></td>
<td><em>Chelidonium gibbicole</em></td>
<td></td>
</tr>
<tr>
<td><strong>Cerambycidae</strong></td>
<td><em>Dihamnus vastator</em></td>
<td>fig longhorn</td>
</tr>
<tr>
<td><strong>Cerambycidae</strong></td>
<td><em>Melanauster chinensis</em></td>
<td></td>
</tr>
<tr>
<td><strong>Cerambycidae</strong></td>
<td><em>Paradisterna plumifera</em></td>
<td>speckled longicorn</td>
</tr>
<tr>
<td><strong>Cerambycidae</strong></td>
<td><em>Promeces linearis</em></td>
<td></td>
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<tr>
<td><strong>Cerambycidae</strong></td>
<td><em>Skeletodes tetrops</em></td>
<td>longhorn beetle</td>
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<tr>
<td><strong>Cerambycidae</strong></td>
<td><em>Strongylurus thoracicus</em></td>
<td>pittosporum longicorn</td>
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<tr>
<td><strong>Cerambycidae</strong></td>
<td><em>Uracanthus cryptophagus</em></td>
<td>citrus branch borer</td>
</tr>
<tr>
<td><strong>Chrysomelidae</strong></td>
<td><em>Colasposoma fulgidum</em></td>
<td>bluegreen citrus nibbler</td>
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<tr>
<td><strong>Chrysomelidae</strong></td>
<td><em>Colasposoma scutellare</em></td>
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<td><strong>Chrysomelidae</strong></td>
<td><em>Geloptera porosa</em></td>
<td>pitted apple beetle</td>
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<td><strong>Chrysomelidae</strong></td>
<td><em>Luperomorpha funesta</em></td>
<td>mulberry flea beetle</td>
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<td><strong>Chrysomelidae</strong></td>
<td><em>Monolepta australis</em></td>
<td>red-shouldered leaf beetle</td>
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<td><strong>Chrysomelidae</strong></td>
<td><em>Sebaethe fulvipennis</em></td>
<td>flea beetle</td>
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<td><strong>Coccinellidae</strong></td>
<td><em>Cheilomenes lunata</em></td>
<td>[Animals Biosecurity]</td>
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<tr>
<td><strong>Coccinellidae</strong></td>
<td><em>Chilocorus cacti</em></td>
<td>[Animals Biosecurity]</td>
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<td><strong>Coccinellidae</strong></td>
<td><em>Chilocorus distigma</em></td>
<td>[Animals Biosecurity]</td>
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<td><strong>Coccinellidae</strong></td>
<td><em>Chilocorus nigrita</em></td>
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<td><strong>Coccinellidae</strong></td>
<td><em>Exochomus flavipes</em></td>
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<td><em>Pentilia castanea</em></td>
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<td>[Animals Biosecurity]</td>
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<td><em>Scymnus nanus</em></td>
<td>[Animals Biosecurity]</td>
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<td><strong>Coccinellidae</strong></td>
<td><em>Serangium parcesetosum</em></td>
<td>[Animals Biosecurity]</td>
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<td><em>Stethorus aethlops</em></td>
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<td><strong>Coccinellidae</strong></td>
<td><em>Stethorus hisiro</em></td>
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<td><strong>Coccinellidae</strong></td>
<td><em>Stethorus punctata picipes</em></td>
<td>[Animals Biosecurity]</td>
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<tr>
<td><strong>Curculionidae</strong></td>
<td><em>Amystax fasciatus</em></td>
<td>[Animals Biosecurity]</td>
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<td><em>Artipus sp.</em></td>
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<td><strong>Curculionidae</strong></td>
<td><em>Brachycerus citriperra</em></td>
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<tr>
<td><strong>Curculionidae</strong></td>
<td><em>Callirhopalus bifasciatus</em></td>
<td>two-banded Japanese weevil</td>
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<td><strong>Curculionidae</strong></td>
<td><em>Dereodus recticollis</em></td>
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<tr>
<td><strong>Curculionidae</strong></td>
<td><em>Diaprepes abbreviatus</em></td>
<td>citrus weevil</td>
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<td><strong>Curculionidae</strong></td>
<td><em>Diaprepes spp.</em></td>
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<td><strong>Curculionidae</strong></td>
<td><em>Eutinophaea bicristata</em></td>
<td>citrus leaf-eating weevil</td>
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<td><strong>Curculionidae</strong></td>
<td><em>Leptopus squalidus</em></td>
<td>fruit tree root weevil</td>
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<tr>
<td><strong>Curculionidae</strong></td>
<td><em>Naupactus xanthographus</em></td>
<td>fruit tree weevil</td>
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<td><em>Otiornynchus cricricollis</em></td>
<td>cribrate weevil</td>
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<td><em>Perperus lateralis</em></td>
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<td><strong>Curculionidae</strong></td>
<td><em>Prepodes spp.</em></td>
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</tbody>
</table>
Protostrophus avidus — weevil
Sciobius marshalli — citrus snout beetle
Symplezomias lewisi

Lucanidae
Prosopocoilus spencei

Scarabaeidae
Hypopholis indistincta — scarab beetle
Maladera matrida — scarab beetle

Scolytidae
Salagena sp.
Xylosandrus germanus — alnus ambrosia beetle

Diptera
Cecidomyiidae
Contarinia citri — leafcurling midge
Contarinia okadai — citrus flower gall midge
Trisopsis sp.

Chamaemyiidae
Leucopis alticeps [Animals Biosecurity]

Drosophilidae
Drosophila paulistorum
Drosophila pseudoobscura
Drosophila simulans
Drosophila willistoni

Tephritidae
Dirioxa poria — island fruit fly

Hemiptera
Anthocoridae
Onius thripoborus [Animals Biosecurity]
Thripheps thripoborus [Animals Biosecurity]

Coreidae
Acanthocoris striicornis — larger squash bug
Anoplocnemis curipes — coreid bug
Leptoglossus membranaceus — coreid bug
Micis profana — crusader bug
Paradasynus spinosus — squash bug
Veneza phyllopus — leaf-footed bug

Lygaeidae
Nysius vinitor — Rutherglen bug

Miridae
Austropeplus sp. — citrus blossom bug

Pentatomomidae
Antestia variegata — antestia bug
Antestisopsis orbitalis
Antestiopsis variegata — antestia bug
Biprulurus bifax — spined citrus bug
Glacias subpunctatus — polished green stink bug
Halyomorpha mista — brown-marmorated stink bug
Musgravea sulciventris — bronze orange bug
Plautia stali — oriental stink bug
Rhynchocoris humeralis — pentatomid bug

Unknown Hemiptera
Holopterna vulga — bug

Homoptera
Aleyrodidae
Aleurocanthus citriperdus — whitefly
Aleurocanthus spiniferus — orange spiny whitefly
Aleurocanthus spp. — whiteflies
Aleurocanthus woglumi — citrus blackfly
Aleurodicus dispersus — spiralling whitefly
Aleurolobus marlatti — Marlatt whitefly
Aleuroplatus sp. whitefly
Aleurothrixus floccosus woolly whitefly
Aleurotuberculatus aucubae aucuba whitefly
Bemisia citricola citrus whitefly
Dialeurodes citri cloudywinged whitefly
Dialeurodes citrifolii whitefly
Dialeurolonga sp. -
Parabemisia myricae Japanese bayberry whitefly
Siphoninus phillyreae phillyrea whitefly

Aphididae
Aphis fabae bean aphid
Aulacorthum magnolae Japanese elder aphid

Cicadellidae
Asymmetrasca decedens leafhopper
Circulifer opacipennis -
Circulifer tenellus beet leafhopper
Cuerna costalis leafhopper
Edwardiana flavescens leafhopper
Empoasca bodenheimeri -
Empoasca citrus green citrus leafhopper
Empoasca decipiens green leafhopper
Empoasca distinguenda -
Empoasca fabae potato leafhopper
Empoasca onukii tea green leafhopper
Homalodisca coagulata glassy-winged sharpshooter
Homalodisca lacerta -
Jacobiasca lybica cotton jassid
Neoaliturus haematoceps leafhopper
Penlthymia bella citrus leafhopper
Scaphytopius nitidus leafhopper

Cicadidae
Cryptotympana facialis black cicada
Meimuna opalifera elongate cicada

Coccidae
Ceroplastes floridensis Florida wax scale
Ceroplastes japonicus pink wax scale
Ceroplastes rubens red wax scale
Ceroplastes rusci fig wax scale
Coccus celatus -
Coccus pseudomagnolianum citricola scale
Coccus viridis green scale
Cribrolecanium andersoni white powdery scale
Gascardia brevicauda white waxy scale
Protopulvaria pyriformis pyriform scale
Pulvaria aethiopica soft green scale
Pulvaria auranti citrus cottony scale
Pulvaria cellulosa pulvaria scale
Saissetia citricola citrus string cottony scale
Saissetia somereni -

Dactylopiidae
Dactylopius filamentosis -
Dactylopius vastator -

Diaspididae
Aonidiella citrina yellow scale
Chrysomphalus aonidum Florida red scale
Chrysomphalus bifasciculatus brown scale
Chrysomphalus dictyospermi dictyospermum scale
Chrysomphalus pinnulifera false purple scale
Ischnapsis longirostris black thread scale
<table>
<thead>
<tr>
<th>Family</th>
<th>Species</th>
<th>Common Name</th>
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<tbody>
<tr>
<td>Lepidosaphes</td>
<td>beckii</td>
<td>purple scale</td>
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<tr>
<td>Lepidosaphes</td>
<td>gloverii</td>
<td>Glover scale</td>
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<tr>
<td>Parlatoria</td>
<td>ziziphi</td>
<td>black parlatoria scale</td>
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<td>Pseudaonidia</td>
<td>duplex</td>
<td>camphor scale</td>
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<td>Selenaspidus</td>
<td>articulatus</td>
<td>West Indian red scale</td>
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<tr>
<td>Unaspis</td>
<td>citri</td>
<td>citrus snow scale</td>
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<td>Unaspis</td>
<td>yanonensis</td>
<td>Japanese citrus scale</td>
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<td>Flatidae</td>
<td>Colgar peracuta</td>
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<td></td>
<td>Geisha distinctissima</td>
<td>green broad-winged planthopper</td>
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<td>Lawana conspersa</td>
<td>green flatid planthopper</td>
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<td>Metcalfa pruinosa</td>
<td>planthopper</td>
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<td>Fulgoridae</td>
<td>Anzora unicolor</td>
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<td>Margarodidae</td>
<td>Drosicha howardi</td>
<td>persimmon mealybug</td>
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<td>Icerya seychellarum</td>
<td>Seychelles scale</td>
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<tr>
<td>Orthezidae</td>
<td>Nipponorthezia ardisiae</td>
<td>ensign scale</td>
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<tr>
<td>Pseudococcidae</td>
<td>Allococcus spp.</td>
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<td></td>
<td>Ferrisia consobrina</td>
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<td></td>
<td>Ferrisia virgata</td>
<td>striped mealybug</td>
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<td>Nipaecoccus vastator</td>
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<td>Nipaecoccus viridis</td>
<td>hibiscus mealybug</td>
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<td></td>
<td>Paracoccus burnerae</td>
<td>spherical mealybug</td>
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<td>Planococcus kraunthiae</td>
<td>Japanese wisteria mealybug</td>
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<td>Planococcus illicinus</td>
<td>citrus mealybug</td>
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<td></td>
<td>Planococcus minor</td>
<td>passionvine mealybug</td>
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<td>Pseudococcus citriculus</td>
<td>smaller citrus mealybug</td>
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<td>Pseudococcus communus</td>
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<td></td>
<td>Pseudococcus filamentosus</td>
<td>mealybug</td>
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<td></td>
<td>Rastrococcus spinosus</td>
<td>mealybug</td>
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<td>Rhizoeicus kondonis</td>
<td>Kondo mealybug</td>
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<td>Psyllidae</td>
<td>Diaphorina citri</td>
<td>citrus psyllid</td>
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<tr>
<td></td>
<td>Trioza erytreae [vector]</td>
<td>citrus psyllid</td>
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<tr>
<td>Ricaniidae</td>
<td>Scolytopopa sp.</td>
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<td>Tropiduchidae</td>
<td>Tambinia sp.</td>
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<tr>
<td>Hymenoptera</td>
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<td>Aphelinidae</td>
<td>Aphytis africanus [Animals Biosecurity]</td>
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<td>Aphytis holoxanthus [Animals Biosecurity]</td>
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<td>Aphytis lepidosaphes [Animals Biosecurity]</td>
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<td>Aphytis lingnanensis [Animals Biosecurity]</td>
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<td>Aphytis melinus [Animals Biosecurity]</td>
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<td>Azotus platensis [Animals Biosecurity]</td>
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<td>Cales noacki [Animals Biosecurity]</td>
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<td>Cales orcharomblati [Animals Biosecurity]</td>
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<td>Centrodora penthimaiae [Animals Biosecurity]</td>
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<td>Coccophagus caridei [Animals Biosecurity]</td>
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<td>Coccophagus pulvinariae [Animals Biosecurity]</td>
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<td></td>
<td>Encarsia ectophaea [Animals Biosecurity]</td>
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<td></td>
<td>Encarsia lahorensis [Animals Biosecurity]</td>
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<td></td>
<td>Encarsia lounsbyri [Animals Biosecurity]</td>
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<td>Encarsia opulent [Animals Biosecurity]</td>
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<td>Encarsia smithi [Animals Biosecurity]</td>
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<tr>
<td></td>
<td>Eretmocerus serisi [Animals Biosecurity]</td>
<td></td>
</tr>
</tbody>
</table>
Marietta connecta [Animals Biosecurity] -
Marietta leopardina [Animals Biosecurity] -

**Bracidae**
- Apanteles aristotali [Animals Biosecurity]
- Biosteres longicaudatus [Animals Biosecurity]
- Pholetesor orniges [Animals Biosecurity]

**Encyrtidae**
- Anicetus beneficus [Animals Biosecurity]
- Comperiella bifasciata [Animals Biosecurity]
- Habrolepis rouxi [Animals Biosecurity]
- Leptomastix dactylopii [Animals Biosecurity] parasitic wasp
- Metaphycus helvolus [Animals Biosecurity]
- Metaphycus luteolus [Animals Biosecurity]
- Metaphycus stanleyi [Animals Biosecurity]
- Metaphycus varius [Animals Biosecurity]
- Psyllaephagus pulvinatus [Animals Biosecurity]

**Eulophidae**
- Aprostocetus ceroplastae [Animals Biosecurity]
- Elachertus fenestratus [Animals Biosecurity]
- Tamarixia radiatus [Animals Biosecurity]

**Eupelmidae**
- Anastatus biperuli [Animals Biosecurity]

**Eurytomidae**
- Bruchophagus fells citrus gall midge

**Formicidae**
- Acromyrmex octospinosus leaf-cutting ant
- Anoplolepis braunsi [Animals Biosecurity]
- Anoplolepis custodiens ant
- Anoplolepis steingroeveri black ant
- Atta cephalotes leaf-cutting ant
- Atta sexdens -
- Atta texana Texas leaf-cutting ant
- Camponotus rufoglaucus -
- Crematogaster castanea -
- Crematogaster liengmei -
- Crematogaster peringueyi [Animals Biosecurity] cocktail ant
- Lepisiota caperensis [Animals Biosecurity]
- Myrmicaria natalensis -
- Pheidole tenuinodis ant
- Polyrhachis schistaceus ant
- Solenopsis invicta [Animals Biosecurity] red imported fire ant
- Tapinoma arnoldi -
- Technomyrmex albipes foreli [Animals Biosecurity]

**Mymaridae**
- Chaetomyrmac gracile [Animals Biosecurity]
- Chaetomyrmac lepidum [Animals Biosecurity]
- Gonatocerus incomptus [Animals Biosecurity]

**Platygasteridae**
- Amitus hesperidum [Animals Biosecurity]
- Amitus spiniferus [Animals Biosecurity]
- Fidiobia citri [Animals Biosecurity]

**Scelionidae**
- Trissolcus oeneus [Animals Biosecurity]
- Trissolcus oenone [Animals Biosecurity]
- Trissolcus aegypt [Animals Biosecurity]

**Signiphoridae**
- Signiphora fax [Animals Biosecurity]
- Signiphora flavella [Animals Biosecurity]
- Signiphora perpauca [Animals Biosecurity]

**Trichogrammatidae**
Trichogramma platneri [Animals Biosecurity] -

Vespidae
Polistes spp. [Animals Biosecurity] paper wasps

Isoptera

Termitidae
Odontotermes lokanandi termite

Lepidoptera

Arctiidae
Lemyra imparilis mulberry tiger moth

Blastobasidae
Holcocera iceryaeella -

Cosmopterigidae
Pyroderces rileyi pink scavenger caterpillar

Geometridae
Anacamptodes fragilaria koa haole looper
Ascosis selenaria reciprocaria citrus looper
Gymnoscelis rufifasciata geometrid moth
Hyposidra talaca -

Gracillariidae
Phyllocnistis citrella citrus leafminer

Heptalidae
Endocitla exrescens Japanese swift moth
Endocitla sinensis -

Lycaenidae
Virachola isocrates pomegranate butterfly

Lymantriidae
Orgyla vetusta western tussock moth

Metarbelidae
Indarbela tetraonis stem borer

Noctuidae
Arcte coerula fruit-piercing moth
Eudocima fullonia fruit-piercing moth
Helicoverpa assulta cape gooseberry budworm
Helicoverpa punctigera oriental tobacco budworm
Tiracola plagia -
Xylomygys curialis noctuid moth

Nymphalidae
Charaxes jasius nymphalid butterfly

Oecophoridae
Psorosticha melanocrepida citrus leafroller
Psorosticha zizyphii citrus leafroller
Stathmopoda auriferella apple heliodinid

Papilionidae
Papilio aegeus aegeus -
Papilio anactus small citrus butterfly
Papilio creshphontes orange dog
Papilio dardanus cenea -
Papilio demodocus orange dog
Papilio demoleus demoleus -
Papilio helenus nicconicolens -
Papilio machaon asiatica -
Papilio memnon citrus swallowtail
Papilio memnon thunbergii -
Papilio nireus lyaeus -
Papilio polytes polytes -
Papilio protenor demetrius -
Papilio xuthus citrus swallowtail
Papilio zelicaon anise swallowtail

Psychidae
Eumeta hardenbergi -
Eumeta japonica
Eumeta minuscula  - tea bagworm
Eumeta moddermanni
Hyalarta huebneri  - leaf case moth

**Pyralidae**
Apomyelois ceratoniae  - date pyralid

**Tortricidae**
Adoxophyes sp.
Amorbia cuneana  - leafroller
Archips argyrospilus  - fruit tree leafroller
Archips machlopis  - leafroller
Archips occidentalis  - leafroller
Archips rosanus  - rose leafroller
Argyrotaenia citrana  - orange tortrix
Cacoecimorpha pronubana  - carnation leafroller
Cryptophlebia batrachopa
Cryptophlebia leucotreta  - false codling moth
Homona magnanima  - oriental tea tortrix
Isotenes miserana  - orange fruitborer
Platynota stultana  - omnivorous leafroller
Tortrix capensana  - tortricid moth

**Yponomeutidae**
Prays citri  - citrus flower moth
Prays parilis  - citrus flower moth

**Neuroptera**
Chrysopidae
Chrysopa oculata [Animals Biosecurity]

Coniopterygidae
Coniopteryx vicina [Animals Biosecurity]
Conwentzia barrettii [Animals Biosecurity]

**Orthoptera**
Acrididae
Zonocerus elegans  - elegant grasshopper

Gryllidae
Ornebius kanetataki  - cricket

Tettigoniidae
Caedicia sp.
Holochlora japonica  - Japanese broadwinged katydid
Microcentrum retinerve  - smaller angular-winged katydid
Scudderia furcata  - fork-tailed bush katydid

Psocoptera
Archipsocidae
Archipsocus sp.  - bark louse

Thysanoptera

**Acrothripidae**
Frankliniorthrips vespiformis [Animals Biosecurity]

**Thripidae**
Chaetanaphothrips orchidii  - banana rust thrips
Leptothrips mali  - black hunter thrips
Scirtothrips aurantii  - citrus thrips
Scirtothrips citri  - citrus thrips
Scirtothrips dorsalis  - chilli thrips
Scirtothrips mangiferae  - mango thrips
Scolothrips sexmaculatus [Animals Biosecurity]
Taeniothrips kelleyanus
Taeniothrips sp.
Thrips coloratus  - thrips
Thrips flavus  - flower thrips
Thrips palmi  - palm thrips

**Unknown Insecta**
Unknown Insecta

Cosmophyllum pallidulum

Mite

Arachnida

Acarina

Acaridae

Thyreophagus entomophagus italicus [Animals Biosecurity]

Anystidae

Anystis agilis [Animals Biosecurity]

Eriophyidae

Aculeps pelekassi
eriophyid mite
Tegolophus australis
brown citrus mite

Phytoseiidae

Amblyseius addoensis [Animals Biosecurity]
Amblyseius citri [Animals Biosecurity]
Amblyseius swirskii [Animals Biosecurity]
Euseius hibisci [Animals Biosecurity]
Euseius scutalis [Animals Biosecurity]
Euseius stipulatus [Animals Biosecurity]
Euseius tularensis [Animals Biosecurity]
Ipheius degenerans [Animals Biosecurity]
predatory mite
Typhlodromus athiasae [Animals Biosecurity]

Stigmaeidae

Agistemus africanus [Animals Biosecurity]
Agistemus tranatalensis [Animals Biosecurity]
Eryngiopus siculus [Animals Biosecurity]

Tarsonomidae

Tarsonomus cryptocephalus [Animals Biosecurity]

Tenuipalpidae

Brevipalpus chilensis
false spider mite
Brevipalpus lewisi
bunch mite
Brevipalpus obovatus
privet mite
Tenipalpus emeticae [Animals Biosecurity]
-
Tuckerella ornata
-
Ultratenipalpus goniaeensis
tenuipalpid mite

Tetranychidae

Calacarus citrifoli
clover mite
Eotetranychus kankitus
tetranychid mite
Eotetranychus lewisi
big beaked plum mite
Eotetranychus yunmensis
Yumi spider mite
Eutetranychus africanus
tetranychid mite
Eutetranychus banksi
Texas citrus mite
Eutetranychus orientalis
pear leaf blister mite
Oligonychus mangiferus
mango spider mite
Tetranychus kanzawai
kanzawa mite

Tuckerellidae

Tuckerella knorri
hawthorn spider mite

Spider

Arachnida

Araneae

Clubionidae

Cheiracanthium mildei [Animals Biosecurity]

Theridiidae

Theridion sp. [Animals Biosecurity]

Mollusc

Gastropoda

Stylommatophora
Achatinidae
  *Achatina immaculata* -
  *Lissachatina immaculata* snail

Bradybaenidae
  *Acusta despecta sieboldiana* snail

Subulinidae
  *Rumina decollata* snail

Urocyclididae
  *Urocyclus flavescens* -
  *Urocyclus kirkii* -

Fungus

Ascomycota

Diaporthales
  Valsaceae
    *Diaportha rudis* (anamorph *Phomopsis rudis*) phomopsis canker

Dothideales
  Elsinoaceae
    *Elsinoe australis* sweet orange scab

Capnodiaceae
  *Capnodium citri* sooty mould

Didymosphaeriaceae
  *Didymosphaeria* sp. --

Mycosphaerellaceae
  *Guignardia citricarpa* (anamorph *Phyllosticta citricarpa*) [black spot strain] citrus black spot
  *Mycosphaerella citri* (anamorph *Stenella citri-grisea*) rind blotch
  *Mycosphaerella horii* greasy spot

Patellariales
  Patellariaceae
    *Rhizidiomyces rufulum* --

Saccharomycetales
  Saccharomycetaceae
    *Debaryomyces hansenii* sour rot
    *Galactomyces citri-aurantii* (anamorph *Geotrichum citri-aurantii*)

Basidiomycota: Basidiomycetes

Boletales
  Coniophoraceae
    *Coniophora eremophila* brown wood rot

Basidiomycota: Telosphaeriales

Septobasidiales
  Septobasidiaceae
    *Septobasidium pseudopedicellatum* felt fungus

Mitosporic Fungi

Unknown Mitosporic Fungi

Unknown Mitosporic Fungi
  *Sphaceloma fawcettii* var. *scabiosa* --

Mitosporic Fungi (Coelomycetes)

Sphaerioidaceae
  *Macrophoma mantegazziana* -
  *Phoma erratica* var. *mikan* --
  *Phoma tracheiphila* mal secco
  *Phomopsis* sp. rot
  *Septoria* spp. -
  *Sphaerotheca tumefaciens* stem gall

Unknown Coelomycetes

Unknown Coelomycetes
  *Aschersonia placenta* [Animals Biosecurity] --
Gloeosporium foliicolum
fruit rot

Mitosporic Fungi (Hyphomycetes)

Hyphomycetales

Dematiaceae

Alternaria limicola
Alternaria pellucida
Cercospora microsora
Phaeoramularia angolensis
cercospora spot
Stemphylium rosarium
Ulocladium obvoideum
ulocladium rot

Unknown Hyphomycetes

Unknown Hyphomycetes

Aureobasidium sp.
Hirsutella thompsonii [Animals Biosecurity]
Isaria sp. [Animals Biosecurity]
Odium tingitaninum
Sporobolomyces roseus
Stenella sp.

Zygomycota: Zygomycetes

Glomales

Glomaceae

Glomus etunicatum [Animals Biosecurity]

Mucorales

Syncephalastraceae

Syncephalastrum racemosum

Bacterium

Bacterium family unknown

Liberobacter africanum
citrus greening bacterium
Liberobacter asiaticum
citrus greening bacterium
Liberobacter sp.
citrus greening bacterium
Spiroplasma citri
citrus stubborn

Pseudomonadaceae

Burkholderia cepacia
sour skin
Xanthomonas axonopodis pv. citri
citrus canker
Xanthomonas campestris pv. aurantifolii
citrus bacterial spot
Xanthomonas campestris pv. citrulmelo
Xylella fastidiosa
Pierce's disease
Xylella fastidiosa pv. citri
variegated chlorosis of citrus

Virus

Indian citrus mosaic badnavirus
- 
citrus cachexia viroid
- 
citrus chlorotic dwarf
- 
citrus infectious variegation ilarvirus
- 
citrus infectious variegation ilarvirus [crinkly leaf strain]
- 
citrus leaf rugose ilarvirus
- 
citrus leathery leaf virus
- 
citrus leprosis rhabdovirus
- 
citrus mosaic virus
- 
citrus ringspot virus
- 
citrus tatter leaf capillovirus
- 
citrus tristeza closterovirus [strains not in New Zealand]
- 
citrus variable viroid
- 
citrus viroids (groups I-IV)
- 
citrus yellow mosaic badnavirus
- 
citrus yellow mottle virus
- 
dwarfing factor viroid
- 
navel orange infectious mottling virus
- 
satsuma dwarf nepovirus
- 

Biosecurity New Zealand Standard 155.02.06: Importation of Nursery Stock 1 March 2005
satsuma dwarf nepovirus [Natsudaidai dwarf strain] -
xyloporosis viroid -
yellow vein clearing of lemon -

**Phytoplasma**

*Candidatus Phytoplasma aurantifolia* witches’ broom phytoplasma
rubbery wood -

**Disease of unknown aetiology**

Australian citrus dieback -
blind pocket -
bud union disease -
citrus blight disease -
citrus fatal yellows -
citrus impetigatura disease -
citrus sunken vein disease -
concave gum -
cristacortis -
gum pocket -
gummy bark -
kassala disease -
lemon sieve tube necrosis -
shell bark of lemons -
zonate chlorosis -
NON-REGULATED PESTS (non-actionable)

Insect
Insecta
Coleoptera

Anthribidae
Araecerus fasciculatus  coffee bean weevil

Cerambycidae
Oemona hirta  lemon tree borer

Coccinellidae
Cryptolaemus montrouzieri  mealybug destroyer
Rodolia cardinalis [Animals Biosecurity]

Curculionidae
Asynonychus cervinus  Fuller's rose weevil
Listroderes obliquus  vegetable weevil
Maleuterpes spinipes  dicky rice weevil
Phlyctinus callosus  banded fruit weevil

Scarabaeidae
Costelytra zealandica  grass grub

Diptera
Cryptochaetidae
Cryptochaetum iceryae [Animals Biosecurity]

Drosophilidae
Drosophila melanogaster  vinegar fly

Hemiptera
Pentatomidae
Nezara viridula  green vegetable bug

Homoptera
Aleyrodidae
Orchamoplatus citri  Australian citrus whitefly

Aphididae
Aphis craccivora  cowpea aphid
Aphis gossypii  cotton aphid
Aphis nerii  oleander aphid
Aphis spiraecola  spirea aphid
Macrosiphum euphorbiae  potato aphid
Myzus cerasi  black cherry aphid
Myzus persicae  green peach aphid
Toxoptera auranti  black citrus aphid
Toxoptera citricida  brown citrus aphid

Coccidae
Ceroplastes ceriferus  Indian white wax scale
Ceroplastes destructor  white wax scale
Ceroplastes sinensis  Chinese wax scale
Coccus hesperidum  brown soft scale
Coccus longulus  long brown scale
Saissetia coffeae  hemispherical scale
Saissetia oleae  black scale

Diaspididae
Aonidiella aurantii  California red scale
Aspidiotella hederae  oleander scale
Aspidiotus nerii  oleander scale
Diaspis santali  scale
Lindingaspis rossi  Ross' black scale
Lopholeucaspis japonica  pear white scale
Parlatoria pergandii  chaff scale
Pinnaspis aspidistrae  fern scale
Quadraspidiotus perniciosus  San Jose scale
### Flatidae
- *Siphanta acuta* green planthopper

### Margarodidae
- *Icerya purchasi* cottony cushion scale

### Pseudococcidae
- *Planococcus citri* citrus mealybug
- *Planococcus mali* -
- *Pseudococcus calceolariae* citrophilus mealybug
- *Pseudococcus longispinus* longtailed mealybug
- *Pseudococcus viburni* obscure mealybug

### Ricaniidae
- *Scolypopa australis* passionvine hopper

### Hymenoptera

#### Aphelinidae
- *Aphytis chrysomphali* [Animals Biosecurity] -
- *Encarsia citrina* [Animals Biosecurity] -
- *Encarsia perniciosa* [Animals Biosecurity] -

#### Encyrtidae
- *Coccidoctonus dubius* [Animals Biosecurity] -

#### Formicidae
- *Linepithema humile* [Animals Biosecurity] Argentine ant
- *Pheidole megacephala* [Animals Biosecurity] big-headed ant

### Lepidoptera

#### Geometridae
- *Pseudocoremia dejectaria* -
- *Pseudocoremia suavis* pine looper

#### Hepialidae
- *Aenetus virescens* puriri moth

#### Noctuidae
- *Helicoverpa armigera* tomato fruitworm
- *Spodoptera litura* cluster caterpillar

#### Oecophoridae
- *Stathmopoda phylegyra* [Animals Biosecurity] -

#### Tortricidae
- *Cnephasia jactatana* black lyre leafroller
- *Ctenopseustis obliquana* brownheaded leafroller
- *Epaphixorus axenana* -
- *Epiphyas postvittana* light brown apple moth
- *Planotortrix excessana* greenheaded leafroller

### Orthoptera

#### Tettigoniidae
- *Caedicia simplex* katydid

### Thysanoptera

#### Phlaeothripidae
- *Nesothis propinquus breviceps* -

#### Thripidae
- *Frankliniella occidentalis* western flower thrips
- *Heliothrips haemorrhoidalis* greenhouse thrips
- *Pezothrips kelleyanus* Kelly’s citrus thrips
- *Thrips Hawaiensis* Hawaiian flower thrips
- *Thrips obscuratus* New Zealand flower thrips
- *Thrips tabaci* onion thrips

### Mite

#### Arachnida
Acarina

Eriophyidae
- Aceria sheldoni [Animals Biosecurity] citrus bud mite
- Phyllocoptera oleivora citrus rust mite

Phytoseiidae
- Phytoseiulus persimilis [Animals Biosecurity] predatory mite
- Eriophyidae
- Eryngiopus bifidus [Animals Biosecurity] -

Tetranychidae
- Eotetranychus sexmaculatus sixspotted mite
- Panonychus citri citrus red mite
- Tetranychus cinnabarinus carmine spider mite
- Tetranychusurticae twospotted spider mite

Mollusc

Gastropoda

Stylommatophora

Helicidae
- Helix aspersa common garden snail

Limacidae
- Deroceras reticulatum grey garden slug

Fungus

Ascomycota

Diaporthales

Valsaceae
- Diaporthe citri (anamorph Phomopsis citri) melanose

Diatrypinae

Eutypa lata eutypa dieback

Dothideales

Botryosphaeriaceae
- Botryosphaeria dothidea (anamorph Fusicoccum aesculi) canker
- Botryosphaeria rhodina gummosis

Capnodiaceae
- Capnodium salicinum sooty mould

Elsinoaceae
- Elsinoe fawcettii (anamorph Sphaceloma fawcettii) verrucosis

Mycosphaerellaceae
- Guignardia citricarpa (anamorph Phyllosticta citricarpa) [non-pathogenic strain] latent skin infection
- Mycosphaerella pinodes (anamorph Ascochyta pinodes) mycosphaerella blight
- Mycosphaerella tassiana (anamorph Cladosporium herbarum) black leaf spot

Pleosporaceae
- Pleospora herbarum (anamorph Stemphylium herbarum) black mould rot

Hypocreales

Hypocreaceae
- Gibberella baccata (anamorph Fusarium lateritium) fusarium rot
- Gibberella fujikuroi (anamorph Fusarium fujikuroi) fusarium rot
- Gibberella intricans (anamorph Fusarium equiseti) root and stem dry rot
- Nectria haematococcas (anamorph Fusarium solani) fusarium fruit rot

Leotiales

Sclerotiniaceae
- Botryotinia fuckeliana (anamorph Botrytis cinerea) grey mould
- Sclerotinia sclerotiorum cottony rot
Phyllachorales
   Phyllachoraceae
      Glomerella cingulata (anamorph Colletotrichum gloeosporioides)  anthracnose

Saccharomycetales
   Dipodascaceae
      Dipodascus geotrichum (anamorph Geotrichum candidum)  sour rot

   Endomycetaceae
      Endomyces geotrichum  endomyces

Xylariales
   Xylariaceae
      Ustulina deusta  coal fungus

Basidiomycota: Basidiomycetes
   Stereales
      Hyphodermataceae
         Erythricium salmonicolor (anamorph Necator decretus)  pink disease

   Mitosporic Fungi (Coelomycetes)
      Sphaeropsidales
         Gloeosporiaceae
            Sooty Blotch

   Mitosporic Fungi (Hyphomycetes)
      Hyphomycetales
         Dematiaceae
            Alternaria alternata  black stalk rot
            Alternaria citri  alternaria rot
            Alternaria hemiesperiderarum  --
         Moniliaceae
            Aspergillus flavus  aspergillus storage rot
            Aspergillus niger  aspergillus rot
            Penicillium digitatum  green mould
            Penicillium italicum  blue mould
            Penicillium uleiense  penicillium mould
            Verticillium lecanii [Animals Biosecurity]  --

   Tuberculariales
      Tuberculariaceae
         Fusarium culmorum  dry rot
         Fusarium oxysporum  leaf spot

   Unknown Hyphomycetes
      Unknown Hyphomycetes
         Trichothecium roseum  pink rot

Oomycota
   Phytophthorales
      Pythiales
         Pythiaceae
            Phytophthora citricola  brown rot of fruit
            Phytophthora citrophthora  citrus brown rot
            Phytophthora hibernalis  citrus brown rot
            Phytophthora nicotianae var. parasitica  collar and root rot

Zygomycota: Zygomycetes
   Mucorales
      Mucoraceae
         Rhizopus stolonifer  rhizopus soft rot

Bacterium
   Pseudomonadaceae
      Pseudomonas corrugata  tomato pith necrosis
      Pseudomonas fluorescens  pink eye
*Pseudomonas syringae*  
bacterial blast

*Pseudomonas syringae* pv. *syringae*  
bacterial soft rot

**Virus**

- citrus enation - woody gall luteovirus
- citrus exocortis viroid
- citrus psorosis A
- citrus psorosis B
- citrus tristeza closterovirus [seedling yellows, decline, and stem pitting strains (except Hassaku dwarf, Capao Bonito, and Queensland and South African orange stem pitting strains)]
- hop stunt viroid
## Inspection, Testing and Treatment Requirements for *Poncirus*

<table>
<thead>
<tr>
<th>ORGANISM TYPES</th>
<th>MAF ACCEPTABLE METHODS</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Insects</strong></td>
<td>Visual inspection AND approved insecticide treatments (Refer to section 2.2.1.6 of the basic conditions).</td>
</tr>
<tr>
<td><strong>Mites</strong></td>
<td>Visual inspection AND approved miticide treatments (Refer to section 2.2.1.6 of the basic conditions).</td>
</tr>
<tr>
<td><strong>Fungus</strong></td>
<td>Country freedom OR growing season inspection for symptom expression.</td>
</tr>
<tr>
<td><strong>Bacterium</strong></td>
<td></td>
</tr>
<tr>
<td><em>Burkholderia cepacia</em></td>
<td>Growing season inspection for symptom expression.</td>
</tr>
<tr>
<td><em>Liberobacter africanum</em></td>
<td>Country freedom OR graft-inoculated sweet oranges, orange pineapple, 18 to 25°C.</td>
</tr>
<tr>
<td><em>Liberobacter asiaticum</em></td>
<td>Country freedom OR graft-inoculated sweet oranges, orange pineapple, 18 to 25°C.</td>
</tr>
<tr>
<td><em>Spiroplasma citri</em></td>
<td>Country freedom/shoot tip grafting. Graft inoculated sweet orange, 27 to 32°C. Bioassay = culture petiole new flush tissue. Collect tissue after several days at hot temperature (&gt; 30°C) and incubate cultures at 32°C.</td>
</tr>
<tr>
<td><em>Xanthomonas axonopodis</em></td>
<td>Country freedom/shoot tip grafting bioassay/detached leaf bioassay/ PCR OR suitable citrus indicator.</td>
</tr>
<tr>
<td><em>Xanthomonas campestris</em></td>
<td>Country freedom/shoot tip grafting bioassay/detached leaf bioassay/ PCR OR suitable citrus indicator.</td>
</tr>
<tr>
<td><em>Xanthomonas campestris</em></td>
<td>Country freedom/shoot tip grafting bioassay/detached leaf bioassay/ PCR OR suitable citrus indicator.</td>
</tr>
<tr>
<td><em>Xylella fastidiosa</em></td>
<td>Country freedom/shoot tip grafting bioassay/ PCR/ELISA OR suitable citrus indicator.</td>
</tr>
<tr>
<td><em>Xylella fastidiosa</em></td>
<td>Country freedom/shoot tip grafting bioassay/ PCR/ELISA OR suitable citrus indicator.</td>
</tr>
<tr>
<td><strong>Virus</strong></td>
<td></td>
</tr>
<tr>
<td><em>citrus chlorotic dwarf</em></td>
<td>Country freedom OR graft inoculated rough lemon at cool temperatures temperatures 18 to 25°C.</td>
</tr>
<tr>
<td><em>citrus infectious variegation ilarivirus</em></td>
<td>Country freedom OR graft inoculated citron, sour orange, lemon, cidro etrog. Grow indicators at cool temperatures 18 to 25°C.</td>
</tr>
<tr>
<td><em>citrus infectious variegation ilarivirus</em></td>
<td>Country freedom OR graft inoculated citron, sour orange, lemon, cidro etrog. Grow indicators at cool temperatures 18 to 25°C.</td>
</tr>
<tr>
<td><em>citrus leaf rugose ilarivirus</em></td>
<td>Country freedom OR graft inoculated Mexican lime or sour orange. Grow indicators at cool temperatures 18 to 25°C.</td>
</tr>
<tr>
<td><em>citrus leathery leaf virus</em></td>
<td>Country freedom OR Rangpur lime. Grow indicators at cool temperatures 18 to 25°C.</td>
</tr>
<tr>
<td><em>citrus leprosis rhadbovirus</em></td>
<td>Country freedom OR graft inoculated sweet orange. Grow indicators at cool temperatures 18 to 25°C.</td>
</tr>
<tr>
<td><em>citrus mosaic virus</em></td>
<td>Country freedom OR graft inoculated satsums. Grow indicators at cool temperatures 18 to 25°C.</td>
</tr>
<tr>
<td><em>citrus ringspot virus</em></td>
<td>Country freedom OR graft inoculated dweet tangor, sweet orange, mandarin (Parson’s Special). Grow indicators at cool temperatures 18 to 25°C.</td>
</tr>
<tr>
<td><em>citrus tatter leaf capillovirus</em></td>
<td>Country freedom OR graft inoculated Rusk citrange, rough lemon, <em>Citrus excelsa</em>, citrange (Troyer). Grow indicators at cool temperatures 18 to 25°C.</td>
</tr>
<tr>
<td><em>citrus tristeza closterovirus</em></td>
<td>Country freedom OR ELISA, graft inoculated Mexican lime, sour orange and <em>Citrus excelsa</em>. Grow indicators at cool temperatures 18 to 25°C.</td>
</tr>
<tr>
<td><em>citrus yellow mosaic badnavirus</em></td>
<td>Country freedom OR graft inoculated sweet orange, sour orange and citron.</td>
</tr>
<tr>
<td><em>citrus yellow mottle virus</em></td>
<td>Country freedom OR other suitable test.</td>
</tr>
<tr>
<td><em>Indian citrus mosaic badnavirus</em></td>
<td>Country freedom OR graft inoculated sweet orange at hot temperature 27 to 32°C.</td>
</tr>
<tr>
<td><em>navel orange infectious mottling virus</em></td>
<td>Country freedom OR graft inoculated Satsums. Grow indicators at cool temperatures 18 to 25°C.</td>
</tr>
<tr>
<td><em>satsuma dwarf nepovirus</em></td>
<td>Country freedom OR graft inoculated satsums. Grow indicators at cool temperatures 18 to 25°C.</td>
</tr>
</tbody>
</table>
## ORGANISM TYPES

### MAF ACCEPTABLE METHODS

<table>
<thead>
<tr>
<th>Organism Type</th>
<th>Methodology</th>
</tr>
</thead>
<tbody>
<tr>
<td>Satsuma dwarf nepovirus [Natsudaidai dwarf strain]</td>
<td>Country freedom OR graft inoculated satsums. Grow indicators at cool temperatures 18 to 25°C.</td>
</tr>
<tr>
<td>Yellow vein clearing of lemon</td>
<td>Country freedom OR graft inoculated Mexican lime or sour orange. Grow indicators at cool temperatures 18 to 25°C.</td>
</tr>
<tr>
<td><strong>Viroid</strong></td>
<td></td>
</tr>
<tr>
<td>Citrus cachexia viroid</td>
<td>Country freedom OR SPAGE and PCR on graft inoculated citron extract. Grow citron at hot temperature 27 to 32°C.</td>
</tr>
<tr>
<td>Citrus variable viroid</td>
<td>Country freedom OR SPAGE and PCR on graft inoculated citron extract. Grow citron at hot temperature 27 to 32°C.</td>
</tr>
<tr>
<td>Citrus viroids (groups I-IV)</td>
<td>Country freedom OR SPAGE and PCR on graft inoculated citron extract. Grow citron at hot temperature 27 to 32°C.</td>
</tr>
<tr>
<td>Dwarfing factor viroid</td>
<td>Country freedom OR SPAGE and PCR on graft inoculated citron extract. Grow citron at hot temperature 27 to 32°C.</td>
</tr>
<tr>
<td>Xyloporosis viroid</td>
<td>Country freedom OR SPAGE and PCR on graft inoculated citron extract or mandarin (Parson’s Special). Grow Citron at hot temperature 27 to 32°C.</td>
</tr>
<tr>
<td><strong>Disease of unknown aetiology</strong></td>
<td></td>
</tr>
<tr>
<td>Australian citrus dieback</td>
<td>Country freedom OR other suitable test.</td>
</tr>
<tr>
<td>Blind pocket</td>
<td>Country freedom OR graft inoculated dweet tangor, sweet orange or <em>Citrus excelsa</em>. Grow indicators at cool temperatures 18 to 25°C.</td>
</tr>
<tr>
<td>Bud union disease</td>
<td>Country freedom OR other suitable test.</td>
</tr>
<tr>
<td>Citrus blight disease</td>
<td>None (cuttings collected from blight free area). Inspect source tree after 2 years before releasing from quarantine.</td>
</tr>
<tr>
<td>Citrus impietratura disease</td>
<td>Country freedom OR graft inoculated <em>Citrus macrophylla</em>.</td>
</tr>
<tr>
<td>Citrus sunken vein disease</td>
<td>Country freedom OR graft inoculated dweet tangor or sweet orange. Growth indicators at cool temperatures 18 to 25°C.</td>
</tr>
<tr>
<td>Concave gum</td>
<td>Country freedom OR graft inoculated dweet tangor, sweet orange or <em>Citrus excelsa</em>. Grow indicators at cool temperatures 18 to 25°C.</td>
</tr>
<tr>
<td>Cristacortis</td>
<td>Country freedom OR graft inoculated dweet tangor, sweet orange or <em>Citrus excelsa</em>. Grow indicators at cool temperatures 18 to 25°C.</td>
</tr>
<tr>
<td>Gum pocket</td>
<td>Country freedom OR graft inoculated dweet tangor, sweet orange or <em>Citrus excelsa</em>. Grow indicators at cool temperatures 18 to 25°C.</td>
</tr>
<tr>
<td>Gummy bark</td>
<td>Country freedom OR SPAGE of graft inoculated citron extract. Grow citron at hot temperature 27 to 32°C.</td>
</tr>
<tr>
<td>Kassala disease</td>
<td>Country freedom, cuttings collected from kassala free area.</td>
</tr>
<tr>
<td>Lemon sieve tube necrosis</td>
<td>Country freedom OR other suitable test.</td>
</tr>
<tr>
<td>Shell bark of lemons</td>
<td>Country freedom OR other suitable test.</td>
</tr>
<tr>
<td>Zonate chlorosis</td>
<td>Country freedom, cuttings collected from kassala free area.</td>
</tr>
<tr>
<td><strong>Phytoplasma</strong></td>
<td></td>
</tr>
<tr>
<td><em>Candidatus</em> phytoplasma aurantifolia</td>
<td>Country freedom OR graft inoculated lime. Grow indicators at cool temperatures 18 to 25°C.</td>
</tr>
<tr>
<td>Rubbery wood</td>
<td>Country freedom OR graft inoculated sweet orange or lemon. Grow citron at hot temperature 27 to 32°C.</td>
</tr>
</tbody>
</table>

* Country freedom is accepted as equivalence to a treatment.

### Notes:

1. The unit for testing is an individual plantlet or cutting. Each single plantlet and cutting must be labelled individually and tested separately.
2. With prior notification, MAF will accept other internationally recognised testing methods.
Note: The entry conditions in this schedule only apply to species in the Plants Biosecurity Index listed under Import Specifications for Nursery Stock as “see 155.02.06 under Populus”, and are additional to those specified in sections 1, 2 and 3 of the import health standard.

GENERAL CONDITIONS:

Countries: Australia, Austria, Belgium, Denmark, Finland, France, Germany, Greece, Hungary, Ireland, Italy, Luxembourg, The Netherlands, Norway, Portugal, Spain, Sweden, Switzerland, United Kingdom, USA

Quarantine Pests: Marssonina spp.; Uredinales; Xylella fastidiosa; virus diseases

Entry Conditions: Basic; with variations and additional conditions as specified below:

A. For Whole Plants:
   PEQ: Level 3
   Minimum Period: 3 months

B. For Tissue Cultures:
   As for Standard Entry Conditions for Tissue Cultures - see Section 2.2.2, but subject to examination at a MAF-registered laboratory at the importers expense, prior to release to the importer.
Prunus

Note: The entry conditions in this schedule only apply to species in the Plants Biosecurity Index listed under Import Specifications for Nursery Stock as “see 155.02.06 under Prunus”, and are additional to those specified in sections 1, 2 and 3 of the import health standard.

1. Type of Prunus nursery stock approved for entry into New Zealand
Cuttings (dormant); Plants in tissue culture

Prunus can be imported into Level 2 post entry quarantine from MAF-accredited facilities, or into Level 3 post entry quarantine from non-accredited facilities.

2. Pests of Prunus
Refer to the pest list.

3. Entry conditions for:
3.1 Prunus cuttings and tissue culture from offshore MAF-accredited facilities in any country
An offshore accredited facility is a facility that has been accredited to the MAF Standard PIT.OS.TRA.ACPQF to undertake phytosanitary activities. The operator of the accredited facility must also have an agreement with MAF on the phytosanitary measures to be undertaken for Prunus. Refer to the “Prunus Inspection, Testing and Treatment Requirements”.

(i) Documentation
Phytosanitary certificate: a completed phytosanitary certificate issued by the NPPO of the exporting country must accompany all Prunus nursery stock exported to New Zealand.

Import permit: an import permit is required.

(ii) Phytosanitary requirements
Before a phytosanitary certificate is issued, the NPPO of the exporting country must be satisfied that the following activities required by MAF have been undertaken.

The Prunus cuttings / plants in tissue culture [choose ONE option] have been:
- inspected in accordance with appropriate official procedures and found to be free of any visually detectable regulated pests.
AND
- treated for regulated insects and mites as described in section 2.2.1.6 of the basic conditions within 7 days prior to shipment [cuttings only].
AND
- held and tested for/classified free from specified regulated pests as required in the agreement between MAF and the [name of the MAF-accredited facility].
AND
- held in a manner to ensure that infestation/reinfestation does not occur following inspection and testing at the accredited facility, and certification.
(iii) **Additional declarations to the phytosanitary certificate**

If satisfied that the pre-shipment activities have been undertaken, the exporting country NPPO must confirm this by recording the treatments applied in the “Disinfestation and/or Disinfection Treatment” section [cuttings only] and by providing the following additional declarations to the phytosanitary certificate:

"The *Prunus* cuttings have been:
- held and tested for/classified free from specified regulated pests as required in the agreement between MAF and the [name of the MAF-accredited facility].
AND
- held in a manner to ensure infestation/reinfestation does not occur following inspection and testing at the accredited facility, and certification."

(iv) **Post-entry quarantine**

PEQ: All *Prunus* nursery stock must be imported under permit into post-entry quarantine in a level 2 quarantine facility accredited to MAF standard PBC-NZ-TRA-PQCON Specification for the registration of a plant quarantine or containment facility, and operator.

**Quarantine Period and Inspection, Testing and Treatment Requirements:** Upon arrival cuttings will be dipped in 1% sodium hypochlorite for 2 minutes [cuttings only]. The nursery stock will be grown for a minimum period of 9 months in post-entry quarantine and will be inspected, treated and/or audit-tested for regulated pests, at the expense of the importer. Nine months is an indicative minimum quarantine period and this period may be extended if material is slow growing, pests are detected, or treatments/testing are required.

### 3.2 Prunus cuttings and tissue culture from from non-accredited facilities in any country

(i) **Documentation**

**Phytosanitary certificate:** a completed phytosanitary certificate issued by the NPPO of the exporting country must accompany all *Prunus* nursery stock exported to New Zealand.

**Import permit:** an import permit is required.

(ii) **Phytosanitary requirements**

Before a phytosanitary certificate is issued, the NPPO of the exporting country must be satisfied that the following activities required by MAF have been undertaken.

The *Prunus* cuttings / plants in tissue culture [choose ONE option] have been:
- inspected in accordance with appropriate official procedures and found to be free of any visually detectable regulated pests.
AND
- treated for regulated insects and mites as described in section 2.2.1.6 of the basic conditions within 7 days prior to shipment [cuttings only].
AND
- held in a manner to ensure that infestation/reinfestation does not occur following certification.
(iii) Additional declarations to the phytosanitary certificate

If satisfied that the pre-shipment activities have been undertaken, the exporting country NPPO must confirm this by recording the treatments applied in the “Disinfestation and/or Disinfection Treatment” section [cuttings only]. No additional declarations are required.

(iv) Post-entry quarantine

**PEQ:** All *Prunus* nursery stock must be imported under permit into post-entry quarantine in a level 3 quarantine facility accredited to MAF standard PBC-NZ-TRA-PQCON Specification for the registration of a plant quarantine or containment facility, and operator.

**Quarantine Period and Inspection, Testing and Treatment Requirements:** Upon arrival cuttings will be dipped in 1% sodium hypochlorite for 2 minutes [cuttings only]. The nursery stock will be grown for a minimum period of 24 months in post-entry quarantine and will be inspected, treated and/or tested for regulated pests as specified in the “Inspection, Testing and Treatment Requirements for *Prunus*”, at the expense of the importer. Twenty four months is an indicative minimum quarantine period and this period may be extended if material is slow growing, pests are detected, or treatments/testing are required.
Pest List for *Prunus*

REGULATED PESTS (actionable)

**Insect**

**Insecta**

**Coleoptera**

**Bostrichidae**
- *Apate monachus*  
  black borer

**Buprestidae**
- *Chrysobothris mali*  
  Pacific flatheaded borer
- *Sphenoptera dadkhani*  
  flatheaded borer
- *Sphenoptera lafertei*  
  flatheaded peach tree borer

**Cerambycidae**
- *Aeolesthes holosericea*  
  cherry stem borer
- *Aeolesthes sarta*  
  quetta borer

**Chrysomelidae**
- *Chaetocnema confinis*  
  sweet potato flea beetle
- *Diabrotica speciosa*  
  cucumber beetle
- *Monolepta australis*  
  red-shouldered leaf beetle
- *Prasoidea sericea*  
  leaf beetle

**Curculionidae**
- *Eremmus atratus*  
  black weevil
- *Eremmus cerealis*  
  western province grain worm
- *Eremmus setulosus*  
  grey weevil
- *Naupactus xanthographus*  
  fruit tree weevil
- *Orthorhinus cylindrirostris*  
  elephant weevil
- *Otiorynchus armadillo*  
  weevil

**Scolytidae**
- *Scolytus japonicus*  
  Japanese bark beetle
- *Scolytus mali*  
  larger shot-hole borer
- *Scolytus rugulosus*  
  shot-hole borer
- *Xyleborus dispar*  
  ambrosia beetle
- *Xyleborus pfeili*  
  bark beetle
- *Xyleborus rubricollis*  
  black twig borer
- *Xyleborus xylographus*  
  pin-hole borer
- *Xylosandrus crassiusculus*  
  bark beetle

**Diptera**

**Cecidomyiidae**
- *Resseliella oculiperda*  
  red bud borer

**Muscidae**
- *Atherigona orientalis*  
  muscid fly

**Syrphidae**
- *Melanostoma agrolas*  
  -

**Tephritidae**
- *Bactrocera cucurbitae*  
  melon fly
- *Ceratitis capitata*  
  Mediterranean fruit fly

**Hemiptera**

**Coreidae**
- *Amblypelta cocophaga*  
  coconut nut fall bug
- *Amblypelta nitida*  
  fruit-spotting bug
- *Leptoglossus occidentalis*  
  coreid bug

**Lygaeidae**
- *Macchiademus diplopterus*  
  grain chinch bug
- *Nysius vinitor*  
  Rutherglen bug
- *Oxycarenus arctatus*  
  coon bug
- *Oxycarenus exitiosus*  
  fruit tree stinkbug
Miridae
- Creontiades dilutus - green mirid
- Lygus cerasi - pale legume bug
- Lygus elisus - tarnished plant bug

Pentatomidae
- Acrosternum hilare - green stink bug
- Antestiopsis orbitalis - -
- Euschistus servus - brown stink bug
- Tessaratoma papillosa - litchi stink bug

Homoptera

Aleyrodidae
- Parabemisia myricae - Japanese bayberry whitefly

Aphididae
- Aphis spiraeola [vector] - spirea aphid
- Brachycerus amygdalevus - short tailed almond aphid
- Brachycerus cardui - thistle aphid
- Brachycerus schwartzi - -
- Brachycerus tragopogonis - -
- Dysaphis plantaginea - rosy apple aphid
- Hyalocterus amygdalevus - peach aphid
- Hyalocterus pruni - mealy plum aphid
- Hysteroneura setariae - rusty plum aphid
- Myzus varians - peach-potato aphid
- Pterochloroides persicae - giant brown bark aphid

Asteroctenidae
- Asteroctenium pustulans - oleander pit scale

Cicadellidae
- Edwardsiana rosae - rose leafhopper

Coccidae
- Ceroa floridensis - Florida wax scale
- Ceroa japonicaus - pink wax scale
- Ceroa rubens - red wax scale
- Eulecanium pruinose - frosted scale
- Parthenococcus persicae - European peach scale
- Pulvinaria innumerabilis - cottony maple scale
- Sphaerolecanium prunastri - globose scale

Diaspididae
- Aonidiella citrina - yellow scale
- Aonidiella orientalis - oriental yellow scale
- Aspidiotus destructor - coconut scale
- Chrysochus aonidus - Florida red scale
- Chrysochus dictylespermi - dictyosperum scale
- Diaspidiotus africanus - grey scale
- Diaspidiotus ancylus - Putnam scale
- Eriophyes lepieri - Italian pear scale
- Parlatoria oleae - olive scale
- Pseudaulacaspis pentagona - white peach scale

Flatidae
- Metcalfa pruinosa - planthopper

Margarodidae
- Icerya seychellarum - Seychelles scale

Membracidae
- Ceresa alta - -
- Ceresa bubalus - buffalo tree hopper
- Stictocephala inermis - -

Pseudococcidae
- Macanellucoccus hirsutus - pink hibiscus mealybug
- Pseudococcus maritimus - grape mealybug
Hymenoptera

Bethylidae
- Goniozus sp.

Eulophidae
- Colpoclypeus florus

Ichneumonidae
- Phytodietus celcissimus

Trichogrammatidae
- Trichogrammatomyia tortricis

Isoptera

Kalotermitidae
- Biliditermes beesoni

Rhinotermitidae
- Coptotermes heimi
- Heterotermes indicola

Termiitidae
- Microtermes unicolor
termite
- Odontotermes lokanandi
termite

Lepidoptera

Arctiidae
- Hyphantria cunea
  fall webworm
- Choreutis pariana
  apple leaf skeletonizer

Cossidae
- Cossus cossus
  goat moth

Gelechiidae
- Anarsia lineatella
  peach twig borer
- Recurvaria nanella
  lesser bud moth
- Recurvaria syncis
  bud moth

Geometridae
- Alsophila pometaria
  fall cankerworm
- Operophtera brumata
  winter moth

Gracillariidae
- Phyllonorycter cerasicolella
  leafminer

Lasiocampidae
- Malacosoma californicum fragile
  tent caterpillar
- Malacosoma disstria
  forest tent caterpillar

Limacodidae
- Doratifera vulnerans
  mottled cup moth
- Latia latistriga
  plum slug

Lymantriidae
- Orgyia antiqua
  rusty tussock moth
- Orgyia gonostigma
  vapourer moth

Metarbelidae
- Indarbela quadridotata
  wood-borer moth

Noctuidae
- Alabama argillacea
  cotton leafworm
- Mamestra brassicae
  cabbage moth
- Peridroma saucia
  variegated cutworm
- Schizura concinna
  redhumped caterpillar
- Spodoptera frugiperda
  fall armyworm
- Xestia c-nigrum
  spotted cutworm

Notodontidae
- Datana ministra
  yellow-necked caterpillar

Oecophoridae
- Cryptophasa melanostigma
  fruit tree borer
- Maroga melanostigma
  fruit tree borer

Papilionidae
- Papilio rutulus
-
<table>
<thead>
<tr>
<th>Family</th>
<th>Species</th>
<th>Common Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>Saturniidae</td>
<td>Conogethes punctiferalis</td>
<td>yellow peach moth</td>
</tr>
<tr>
<td></td>
<td>Euzophera bigella</td>
<td>quince moth</td>
</tr>
<tr>
<td></td>
<td>Euzophera semifuneralis</td>
<td>American plum borer</td>
</tr>
<tr>
<td></td>
<td>Ostrinia nubilalis</td>
<td>European corn borer</td>
</tr>
<tr>
<td></td>
<td>Antheraea polyphemus</td>
<td>emperor moth</td>
</tr>
<tr>
<td>Sesidiidae</td>
<td>Synanthedon exitosa</td>
<td>peach tree borer</td>
</tr>
<tr>
<td></td>
<td>Synanthedon pictipes</td>
<td>lesser peach tree borer</td>
</tr>
<tr>
<td>Sphingidae</td>
<td>Sphinx drupiferarum</td>
<td>plum sphinx</td>
</tr>
<tr>
<td>Tortricidae</td>
<td>Accleris minuta</td>
<td>yellow headed fireworm</td>
</tr>
<tr>
<td></td>
<td>Adoxophyes orana</td>
<td>reticulated tortrix</td>
</tr>
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<td>Archips argyrospilus</td>
<td>fruit tree leafroller</td>
</tr>
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<td>Archips oporanus</td>
<td>fruit tree tortrix</td>
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<td></td>
<td>Archips podanus</td>
<td>fruit tree tortrix</td>
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<td></td>
<td>Archips purpuranus</td>
<td>-</td>
</tr>
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<td></td>
<td>Archips rosanus</td>
<td>rose leafroller</td>
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<tr>
<td></td>
<td>Argyrotaenia citrana</td>
<td>orange tortrix</td>
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<td></td>
<td>Argyrotaenia ljungiana</td>
<td>grey red-barred tortrix</td>
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<tr>
<td></td>
<td>Argyrotaenia velutinana</td>
<td>red-banded leafroller</td>
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<tr>
<td></td>
<td>Choristoneura albaniana</td>
<td>leafroller</td>
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<tr>
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<td>Choristoneura rosaceana</td>
<td>oblique-banded leafroller</td>
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<td>Cryptoptila immersana</td>
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<tr>
<td></td>
<td>Cydia caryana</td>
<td>hickory shuckworm</td>
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<tr>
<td></td>
<td>Cydia packardi</td>
<td>cherry fruitworm</td>
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<td></td>
<td>Cydia prunivora</td>
<td>lesser appleworm</td>
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<td></td>
<td>Epichoristodes acerbellae</td>
<td>South African carnation worm</td>
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<tr>
<td></td>
<td>Hedya dimidioalba</td>
<td>green budworm</td>
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<tr>
<td></td>
<td>Pandemis cerasana</td>
<td>barred fruit tree tortrix</td>
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<td>Pandemis heparana</td>
<td>dark fruit tree tortrix</td>
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<tr>
<td></td>
<td>Platynota flavedana</td>
<td>apple bud moth</td>
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<td></td>
<td>Platynota idaeusalis</td>
<td>tufted apple bud moth</td>
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<td></td>
<td>Proeulia auraria</td>
<td>grapevine leafroller</td>
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<td></td>
<td>Proeulia chrysoperis</td>
<td>grapevine leaf-rolling tortricid</td>
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<td>Sparganothis reticulatana</td>
<td>leafroller</td>
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<td>Spilonota ocellana</td>
<td>eyespotted bud moth</td>
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<td>Tortrix capensana</td>
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<td>Orthoptera</td>
<td>Acanthacris ruficornis</td>
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<td>Phymateus leprosus</td>
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<td>Thysanoptera</td>
<td>Acrithosiphum cephalodes</td>
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<td>Trichidae</td>
<td>Frankliniella tritici</td>
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<td>Taeniothrips meridionalis</td>
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<td>Thrips angusticeps</td>
<td>cabbage thrips</td>
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<td>Thrips flavus</td>
<td>flower thrips</td>
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<tr>
<td>Mite</td>
<td>Arachnida</td>
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<td>Acarina</td>
<td>Acarida</td>
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<td>Caloglyphus haripuriensis</td>
<td>acarid mite</td>
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<td>Eriophyidae</td>
<td>Aculus phloecoptes</td>
<td>plum bud gall mite</td>
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<tr>
<td></td>
<td>Aceria chinensis</td>
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<tr>
<td></td>
<td>Aculus fockeui [vector]</td>
<td>eriophyid mite</td>
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</tbody>
</table>
Cenopalpus lanceolatisetae - flat scarlet mite
Cenopalpus pulcher - pear leaf blister mite
Epitrimerus pyri - pear leaf blister mite
Eriophyes armeniacus - eriophyid mite
Eriophyes catarcardiae - eriophyid mite
Eriophyes emarginatae - eriophyid mite
Eriophyes inaequalis - eriophyid mite
Eriophyes padi - eriophyid mite
Eriophyes similis - eriophyid mite
Phytoptus insidiosus - pineapple fruit mite

Tarsenemidae
Tarsenemus pruni - tarsenemid mite
Tarsenemus randsi - tarsenemid mite
Tarsenemus smithi - tarsenemid mite

Tenuipalpidae
Rhinotergum schestovici - mite
Tenuipalpus persicae - false spider mite
Tenuipalpus taonicus - false spider mite

Tetranychidae
Aplonobia citri - Japanese citrus rust mite
Bryobia rubrioculus f. sp. prunicola - brown mite
Eotetranychus boreus - apricot spider mite
Eotetranychus carpinii - tetranychid mite
Eotetranychus carpinii borealis - yellow spider mite
Eotetranychus pruni - hickory scorch mite
Eotetranychus uncatus - Lewis spider mite
Eutetranychus africanus - African red spider mite
Eutetranychus enodes - tetranychid mite
Eutetranychus orientalis - pear leaf blister mite
Oligonychus gossypii - tetranychid mite
Oligonychus mangiferus - mango spider mite
Tetranychus canadensis - fourspotted spider mite
Tetranychus kanzawai - kanzawa mite
Tetranychus neocaledonicus - Mexican spider mite
Tetranychus pacificus - Pacific spider mite
Tetranychus viennensis - twospotted mite

Nematode
Secernentea
Tylenchida
Pratylenchidae
Pratylenchus brachyurus - root lesion nematode

Fungus
Ascomycota
Calosphaeriales
Calosphaeriaceae
Calosphaeria pulchella --

Diaporthales
Valsaceae
Apionomonia erythrostoma --
Diaporthe decorticans -
Diaporthe pennsylvanica -
Diaporthe pruni -
Leucostoma cincta (anamorph Cytospora cincta) - canker

Dothideales
Botryosphaeriaceae
Auerswaldiella puccinioides -
Mycosphaerellaceae
Mycosphaerella cerasella (anamorph Cercospora) - leaf spot
Mycosphaerella nigerristigma - Mycosphaerella pruni-persicae (anamorph Miuraea persica) frosty mildew

Schizothyriaceae
   Schizothyrium pomi (anamorph Zygophiala jamaicensis) fly speck

Zopfiaceae
   Caryospora putaminum --
   unknown Dothideales
      Apiospora morbosa black knot

Erysiphales
   Erysipheceae
      Sphaerotheca armeniaca --

Leotiales
   Dermataceae
      Blumeriella jaapii (anamorph Phloeospora padi) shot-hole
      Derma ce rasi (anamorph Foveostroma drupacearum) --

   Sclerotinaceae
      Grovesinia pyramidalis (anamorph Cristularia moricola) target spot
      Lamberella jasmini rot
      Lamberella pruni fruit rot
      Monilinia fructigena (anamorph Monilia fructigena) European brown rot
      Monilinia kusanoii leaf blight
      Monilinia seaverii twig blight

Phyllachorales
   Phyllachoraceae
      Polystigma rubrum --
      Polystigma ussuriensis --

Taphriniales
   Taphrinaceae
      Taphrina armeniaca witches’ broom
      Taphrina communis bladder fruit
      Taphrina confusa --
      Taphrina flectans --
      Taphrina pruni-subcordatae --

Xylariales
   Xylariaceae
      Xylaria longiana --
      Xylaria mali black root rot

unknown Ascomycota
   Hyponecctriaceae
      Physalospora perseae peach blister canker

Basidiomycota: Basidiomycetes

Agaricales
   Strophariaceae
      Pholiota squarrosa wood decay

Tricholomataceae
   Armillaria bulbosa armillaria root rot
   Armillaria heimii --
   Armillaria luteobubalina armillaria root rot
   Armillaria mellea (anamorph Rhizomorpha subcorticalis) armillaria root rot
   Armillaria ostoyae armillaria root rot
   Armillaria tabescens armillaria root rot

Ganodermatales
   Ganodermataceae
      Ganoderma brownii wood decay
      Ganoderma lobatum white soft decay
      Ganoderma lucidum (anamorph Polyporus lucidus) wood rot
      Ganoderma zonatum butt and stem rot

Hericiales
   Gloeocystidiellaceae
Gloeocystidiellum porosum
Laxitextum bicolor
--
white rot

Hymenochaetales

Hymenochaetaceae
Phellinus igniarius
Phellinus pomaceus
Phellinus prunicola
white heart rot

Poriales

Coriaceae
Coriolopsis gallica
white rot
Fomes fomentarius
wood decay
Fomitopsis cajanderi
wood decay
Fomitopsis meliae
wood decay
Fomitopsis pinicola
brown cubical rot
Fomitopsis rosea
brown pocket rot
Fomitopsis spraguei
butt rot
Gloeophyllum sepiarium
brown rot
Gloeophyllum trabeum
brown rot
Heterobasidion annosum (anamorph Spiniger meineckellum)
wood rot
Laetiporus sulphureus (anamorph Sporotrichum versisporum)
brown cubical rot
Oxyporus latermarginatus
wood rot
Trametes velutina
dieback
Trichaptum biforme
white rot
Tyromyces chioneus
white rot
Tyromyces tephroleucus
-

Polyporaceae
Polyopus squamosus
wood rot

Stereales

Corticiaceae
Phanerochaete arizonica
white rot
Phanerochaete crassa
white rot

Cyphellaceae
Maireina marginata
wood decay

Hypodermataceae
Phanerochaete arizonica
white rot

Sistotremales
Phymatotrichopsis omnivora
Texas root rot

Steccrerinaceae
Irrex lacteus
wood rot

Stereaceae
Stereum strigoso-zonatum
silver leaf

Thelephorales

Thelephoraceae
Corticium koleroga
web blight

Basidiomycota: Teliomycetes

Uredinales
Uropyxidaceae
Tranzschella prun-spinosa
leaf rust

Mucorales
Gilbertellaceae
Gilbertella persicaria
fruit rot

Zygomyccota: Zygomycetes

Mucorales
Rhizopus circinans
--

mitosporic fungi
unknown mitosporic fungi
unknown mitosporic fungi
Catenophora pruni
--
mitosporic fungi (Coelomycetes)

Sphaeropsis

Sphaeroidales

Coniothyrium amygdali

Coniothyrium prunicolum -- coniothyrium disease

Cytospora persicae --

Diplodia pruni --

Diplodia vulgaris --

Diplodina persicae --

Nattrasia mangiferae -- stem-end rot

Phoma persicae -- leaf spot

Phomopsis cinerascens -- fig canker

Phomopsis perseae -- fruit rot

Phyllosticta congesta -- phyllosticta rot

Phyllosticta laurocerasi -- leaf spot

Phyllosticta persicae -- target leaf spot

Phyllosticta serotina --

Phyllosticta virginiana --

Septoria pruni --

unknown Coelomycetes

unknown Coelomycetes

Asteromella mali --

Cylindrosporium nuttallii --

Gloeosporium laeticolor -- anthracnose

Melanconium cerasinum --

Pestalotia laurocerasi -- leaf spot

Rhodosticta quercina -- peach canker

mitosporic fungi (Hyphomycetes)

Hyphomycetales

Dematiaceae

Alternaria mali -- alternaria blotch

Cercospora effusa --

Cercospora rubrolincta -- leaf spot

Clasterosporium degenerans --

Mycocentrospora cladosporioides -- fruit spot

Phialophora parasitica -- stem dieback

Moniliaceae

Monilia angustior -- rot

Monilia implicata -- rot

unknown Hyphomycetes

unknown Hyphomycetes

Aureobasidium prunicola -- fruit rot

Candida inconspicua -- sour pit

unknown fungi

unknown fungi

unknown fungi

unknown fungi

Morrisographium persicae --

Bacterium

Bacillaceae

Bacillus mesentericus vulgatus --

Pseudomonadaceae

Pseudomonas amygdali --

Pseudomonas syringae pv. cerasioca -- bacterial gall

Pseudomonas syringae pv. morsprunorum -- bacterial canker

Spiroplasmataceae

Spiroplasma citri -- citrus stubborn

Xanthomonadaceae

Xylella fastidiosa -- Pierce's disease
Virus

American plum line pattern virus
Apple stem grooving virus [Prunus-infecting strain]
Apricot deformation mosaic virus
Apricot latent virus
Carnation Italian ringspot virus
Cherry Hungarian rasp leaf virus
Cherry leaf roll virus [strains not in New Zealand]
Cherry line pattern and leaf curl virus
Little cherry virus 1
Little cherry virus 2
Little cherry virus 3
Cherry mottle leaf virus
Cherry rasp leaf virus [strains not in New Zealand]
Cherry rosette disease associated virus
Cherry rough fruit virus
Cherry rusty mottle virus
Cherry twisted leaf virus
Cherry virus A
Epirus cherry virus
Myrobalan latent ringspot virus
Peach enation virus
Peach mosaic virus
Peach rosette mosaic virus
Peach violet mosaic virus
Peach yellow leaf virus
Petunia asteroid mosaic virus
Plum bark necrosis stem pitting-associated virus
Plum pox virus
Prunus virus S
Raspberry ringspot virus
Sowbane mosaic virus
Stocky prune virus
Tomato black ring virus
Tomato bushy stunt virus
Tomato ringspot virus [strains not in New Zealand]

Viroid

Hop stunt viroid
Peach latent mosaic viroid

Phytoplasma

Apricot chlorotic leafroll phytoplasma
Apricot decline phytoplasma
Apricot witches broom phytoplasma
Cherry albino phytoplasma
Cherry blossom anomaly
Cherry lethal yellows
Cherry Moliere disease phytoplasma
Cherry western X anomaly
European stone fruit yellows phytoplasma
Peach decline phytoplasma
Peach red suture phytoplasma
Peach rosette phytoplasma
Peach vein clearing phytoplasma
Peach X-disease phytoplasma
Peach yellow leafroll phytoplasma
Peach yellows phytoplasma
Plum chlorotic leaf roll phytoplasma

**Disease of unknown aetiology**

- Amasya cherry disease agent
- Apricot fruit blotch
- Apricot necrotic leaf roll
- Apricot pucker leaf agent
- Apricot vein necrosis agent
- Apricot yellow line pattern
- Apricot yellow mosaic
- Asteroid spot
- Cherry (sweet) mora
- Cherry Lambert mottle
- Cherry black canker agent
- Cherry chlorotic rusty spot agent
- Cherry decline agent
- Cherry freckle fruit agent
- Cherry fruit necrosis
- Cherry midleaf necrosis
- Cherry mottling agent
- Cherry necrotic crook agent
- Cherry necrotic mottle leaf agent
- Cherry pseudo leafroll
- Cherry rough bark agent
- Cherry short stem agent
- Cherry sickle leaf
- Cherry spur cherry agent
- Cherry stem pitting agent
- Cherry stunt
- Cherry vein-clearing rosette
- Cherry white spot
- Cherry xylem aberration agent
- Peach Mexican spot agent
- Peach asteroid mosaic
- Peach bark and wood grooving agent
- Peach blotch agent
- Peach chlorosis agent
- Peach gummosis agent
- Peach leaf necrosis agent
- Peach leaf roll
- Peach mottle agent
- Peach oil blotch agent
- Peach pseudo stunt agent
- Peach purple mosaic agent
- Peach red marbling agent
- Peach seedling necrosis
- Peach sooty ringspot agent
- Peach star mosaic agent
- Peach stubby twig agent
- Peach wart agent
- Peach weak peach
- Peach willow leaf rosette
- Peach yellow mosaic agent
- Plum chlorosis and wilt
- Plum diamond canker
- Plum enation mottle
- Plum leaf roll
- Plum ochre mosaic agent
- Plum ringspot and shot hole
- Plum white spot
<table>
<thead>
<tr>
<th>Plant Disease Name</th>
<th>Status</th>
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<tbody>
<tr>
<td>Prune diamond canker agent</td>
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<tr>
<td>Shirofugen stunt agent</td>
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<td>Sour cherry (Montmorency) bark splitting agent</td>
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<tr>
<td>Sour cherry pink fruit agent</td>
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<tr>
<td>Sour cherry rusty splitting agent</td>
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<td>Sour cherry vein yellow spot</td>
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<td>Utah dixie rusty mottle</td>
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### NON-REGULATED PESTS (non-actionable)

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<tr>
<th>Insect</th>
<th>Order</th>
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<tbody>
<tr>
<td>Coleoptera</td>
<td>Insecta</td>
<td>Cerambycidae</td>
<td>Oemona hirta: lemon tree borer</td>
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<td>Chrysolinae</td>
<td>Eucolaspis brunnea: bronze beetle</td>
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<td>Curculionidae</td>
<td>Asynonychus cervinus: Fuller's rose weevil</td>
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<td></td>
<td>Irenimus parilis: weevil</td>
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<td></td>
<td>Nitidulidae</td>
<td>Phlyctinus callosus: banded fruit weevil</td>
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<td></td>
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<td>Cerambycidae</td>
<td>Oemona hirta: lemon tree borer</td>
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<td></td>
<td></td>
<td>Scarabaeidae</td>
<td>Carpophilus davidsoni: dried fruit beetle</td>
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<td>Carpophilus hemipterus: dried fruit beetle</td>
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<td>Carpophilus mutilatus: dried fruit beetle</td>
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<tr>
<td>Dermaptera</td>
<td>Forficulidae</td>
<td>Forficula auricularia: European earwig</td>
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<td>Homoptera</td>
<td>Pentatomidae</td>
<td>Nezara viridula: green vegetable bug</td>
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<td>Aphididae</td>
<td>Aphididae</td>
<td>Aphis gossypii: cotton aphid</td>
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<td></td>
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<td>Aphis pomi: apple aphid</td>
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<td>Aphis spiraecola: spirea aphid</td>
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<td>Brachycoccus helichrysi: leafcurl plum aphid</td>
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<td>Brachycoccus persicae: black peach aphid</td>
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<td>Eriosoma lanigerum: wooly apple aphid</td>
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<td>Macrosiphum euphorbiae: potato aphid</td>
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<td></td>
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<td>Myzus cerasi: black cherry aphid</td>
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<td>Myzus persicae: green peach aphid</td>
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<td>Rhopalosiphum nymphaeae: waterlily aphid</td>
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<td>Rhopalosiphum padi: bird cherry-oat aphid</td>
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<tr>
<td>Coccidae</td>
<td>Coccidae</td>
<td>Ceroahoplastes destructor: white wax scale</td>
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<td>Coccus hesperisum: brown soft scale</td>
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<td>Parthenolecanium corni: European fruit scale</td>
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<td>Saissetia coffeae: hemispherical scale</td>
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<td>Saissetia oleae: black scale</td>
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<tr>
<td>Diaspididae</td>
<td>Diaspididae</td>
<td>Aonidiella auranti: California red scale</td>
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<tr>
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<td>Aspidiotus nerii: oleander scale</td>
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<td>Diaspidiotus perniciosus: San Jose scale</td>
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<td>Lepidosaphes novozelandica: scale</td>
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<td>Lepidosaphes ulmi: oystershell scale</td>
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<td>Lindingaspis rossi: Ross' black scale</td>
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<td>Lopholeucaspis japonica: pear white scale</td>
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<td>Parlatoria pergandii: chaff scale</td>
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<tr>
<td>Eriococcidae</td>
<td>Eriococcidae</td>
<td>Eriococcus coriaceus: gum tree scale</td>
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<tr>
<td>Margarodidae</td>
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</table>
Biosecurity New Zealand Standard 155.02.06: Importation of Nursery Stock

Icerya purchasi
Pseudococcidae
Pseudococcus calceolariae
cottony cushion scale
Pseudococcus longispinus
citrophilus mealybug
Pseudococcus viburni
longtailed mealybug

Ricaniidae
Scolypopa australis
obscure mealybug

Hymenoptera

Tenthredinidae
Caliroa cerasi

Lepidoptera

Gracillariidae
Phyllonorycter messaniella

Hepialidae
Anenetus virescens
puriri moth

Noctuidae
Agrotis ipsilon
greasy cutworm
Helicoverpa armigera
tomato fruitworm
Helicoverpa armigera conferta
tomato fruitworm

Saturniidae
Antheraea eucalypti
gum emperor moth

Tortricidae
Ctenopseustis obliquana
brownheaded leafroller
Cydia molesta
oriental fruit moth
Cydia pomonella
coding moth
Epiphyas postvittana
light brown apple moth
Harmologa oblongana
leafroller
Planotortrix excessana
greenheaded leafroller
Tortrix flavescens

Orthoptera

Tettigoniidae
Caedicia simplex
katydid

Thysanoptera

Thripidae
Frankliniella intensa
eastern flower thrips
Frankliniella occidentalis
western flower thrips
Heliothrips haemorrhoidalis
greenhouse thrips
Thrips obscuratus
New Zealand flower thrips

Mite

Arachnida
Acarina

Acaridae
Tyrophagus putrescentiae
mould mite

Diptilomiopidae
Diptacus gigantorhynchus
big-beaked plum mite

Eriophyidae
Aculus cornutus
peach silver mite
Aculus fockeui
eriophyid mite
Eriophyes pyri
pear leaf blister mite
Phyllococpes abaenus
apricot-russeting mite

Tarsonomiidae
Tarsonomus waitei
peach bud mite

Tenuipalpidae
Brevipalpus californicus
bunch mite
Brevipalpus obovatus
privet mite
Brevipalpus phoenicis
passionvine mite

Tetranychidae
Bryobia rubrioculus
bryobia mite
Bryobia rubrioculus redikorzevi
brown fruit mite
<p>| | |</p>
<table>
<thead>
<tr>
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<tbody>
<tr>
<td><strong>Eotetranychus sexmaculatus</strong></td>
<td>sixspotted mite</td>
</tr>
<tr>
<td><strong>Panonychus citri</strong></td>
<td>citrus red mite</td>
</tr>
<tr>
<td><strong>Panonychus ulmi</strong></td>
<td>European red mite</td>
</tr>
<tr>
<td><strong>Tetranychus cinnabarinus</strong></td>
<td>carmine spider mite</td>
</tr>
<tr>
<td><strong>Tetranychus lambi</strong></td>
<td>strawberry spider mite</td>
</tr>
<tr>
<td><strong>Tetranychus turkestani</strong></td>
<td>strawberry spider mite</td>
</tr>
<tr>
<td><strong>Tetranychus urticae</strong></td>
<td>twospotted spider mite</td>
</tr>
</tbody>
</table>

**Nematode**

**Adenophorea**

**Dorylaimida**

**Trichodorididae**

- Paratrichodorus porosus

**Secernentea**

**Tylenchida**

**Pratylenchididae**

- Pratylenchus penetrans: root lesion nematode

**Fungus**

**Ascomycota**

**Diaporthales**

**Valsaceae**

- Diaportha eres (anamorph Phomopsis oblonga): canker
- Diaportha perniciosa (anamorph Phomopsis mail): canker
- Leucostoma persoonii (anamorph Cytospora leucostoma): valsa dieback
- Valsaambiens (anamorph Cytospora leucosperma): twig dieback
- Valsa ceratophora (anamorph Cytospora sacculus): valsa canker

**Diatrypales**

**Diatrypaceae**

- Diatrype stigma: leaf spot
- Eutypa lata: eutypa dieback

**Dothideales**

**Botryosphaeriaceae**

- Botryosphaeria dothidea (anamorph Fusicoccum aesculi): canker
- Botryosphaeria obtusa (anamorph Sphaeropsis malorum): blight
- Botryosphaeria rhodina (anamorph Lasiodiplodia theobromae): gummosis
- Botryosphaeria stevensii (anamorph Diplodia mutila): botryosphaeria canker

**Leptosphaeriaceae**

- Leptosphaeria coniothyrium (anamorph Coniothyrium fuckelii): common canker

**Mycosphaerellaceae**

- Mycosphaerella tassiana (anamorph Cladosporium herbarum): black leaf spot

**Venturaceae**

- Venturia carpophila (anamorph Cladosporium carpophilum): scab
- Venturia cerasi: scab

**Erysiphales**

**Erysiphaceae**

- Phyllactinia guttata: powdery mildew
- Podosphaera clandestina: powdery mildew
- Podosphaera leucotricha: powdery mildew
- Podosphaera tridactyla (anamorph Oidium passerinii): powdery mildew
- Sphaerotheca pannosa (anamorph Oidium leucoconium): powdery mildew

**Hypocreales**

**Hypocreaceae**

- Bionectria ochroleuca (anamorph Glomus roseum): fusarium rot
- Calonectria kyotosis (anamorph Cylindrocladium scoparium): root and stem rot
- Gibberella avenacea (anamorph Fusarium avenaceum): fusarium stem canker
- Gibberella baccata (anamorph Fusarium lateritium): fusarium rot
- Gibberella pulicaris (anamorph Fusarium sambucinum): Fusarium rot
- Gibberella zeae (anamorph Fusarium graminearum): headblight of maize
- Hypocrea ceramica (anamorph Trichoderma koningii): trichoderma rot
Nectria cinnabarina (anamorph Tubercularia vulgaris) coral spot
Nectria galligena (anamorph Cylindrocarpon mali) European canker
Nectria haematococca (anamorph Fusarium solani) fusarium fruit rot
Nectria radicicola (anamorph Cylindrocarpon destructans) rot

Leotiales
Dermateaceae
Diplocarpon mespili (anamorph Entomosporium mespilii) black spot

Sclerotiniaceae
Botryotinia fuckeliana (anamorph Botrytis cinerea) grey mould
Monilinia fructicola American brown rot
Monilinia laxa (anamorph Monilia laxa) European brown rot
Sclerotinia sclerotiorum cottony rot

Microascales
unknown Microascales canker

Phyllachorales
Phyllachoraceae
Glomerella cingulata (anamorph Colletotrichum gloeosporioides) anthracnose

Saccharomycetales
Dipodascaceae
Dipodascus geotrichum (anamorph Geotrichum candidum) sour rot

Taphriniales
Taphrinaceae
Taphrina deformans leaf curl
Taphrina mume --
Taphrina pruni leaf blister
Taphrina wiesneri leaf blister

Xylariales
Xylariaceae
Rosellinia necatrix (anamorph Dematophora necatrix) white root rot

Basidiomycota: Basidiomycetes
Agaricales
Agaricaceae
Collybia druceae mushroom rot

Aphyllophorales
unknown Aphyllophorales --

Cantharellales
Hydnaceae
Steccherinum ochraceum sapwood rot

Ceratobasidiaceae
Thanatephorus cucumeris (anamorph Rhizoctonia solani) rhizoctonia rot

Ganodermatales
Ganodermataceae
Ganoderma applanatum white rot
Ganoderma australe white heart rot

Hymenochaetales
Hymenochaetaceae
Phellinus giganteus wood rot
Phellinus robustus black measles

Poriales
Coriolaceae
Antrodia albida wood decay
Pycnoporus coccineus branch canker
Trametes hirsuta wood decay
Trametes versicolor white rot

Schizophylloaceae
Schizophyllaceae
Schizophyllum commune

taglic stem rot

Stereales

Atheliaceae

Athelia rolfsii (anamorph Sclerotium rolfsii) Rolf's disease

Corticiaceae

Corticium utriculicum root rot

Meruliaceae

Chondrostereum purpureum silver leaf

Stereaceae

Amylostereum sacratum sirex fungus
Stereum hirsutum black measles

Basidiomycota: Teliomycetes

Uredinales

Uropyxiaceae

Tranzschelia discolor rust

Basidiomycota: Ustomycetes

Platygloaeales

Platygloaceae

Helicobasidium purpureum (anamorph Rhizoctonia crocorum) violet root rot

Oomycota

Pythiales

Phytophthora cactorum phytophthora crown and root rot
Phytophthora cambivora -
Phytophthora cinnamomi phytophthora crown and root rot
Phytophthora citricola brown rot of fruit
Phytophthora citrophthora citrus brown rot
Phytophthora cryptogea pink rot
Phytophthora drechsleri -
Phytophthora megasperma pink rot
Phytophthora nicotianae buckeye rot
Phytophthora syringae ravel end brown rot
Pythium irregulare pythium root and stem rot
Pythium ultimum leak

Zygomycota: Zygomycetes

Mucorales

Mucoraceae

Mucor piniformis mucor fruit rot
Rhizopus oryzae wet rot
Rhizopus stolonifer rhizopus soft rot

mitosporic fungi (Coelomycetes)

Sphaeropsidales

Leptostromataceae

Gloeodes pomigena sooty blotch

Sphaerioidaceae

Botryosphaeria ribis (anamorph Dothiorella ribis) canker
Fuscoscum amygdali constriction canker
Macrophomina phaseolina ashy stem blight
Phoma fimbriata -
Phoma pomorum phoma fruit and leaf spot
Phyllosticta circumscissa leaf spot

unknown Coelomycetes

unknown Coelomycetes

Colletotrichum acutatum anthracnose
Pestalotopsis adusta leaf spot
Pestalotopsis versicolor pestalotiosis rot

mitosporic fungi (Hyphomycetes)

Hyphomycetales

Dematiaceae

Alternaria alternata black stalk rot
Alternaria citri
Alternaria panax
Alternaria tenuissima
Cladosporium cladosporioides

Alternaria rot
Alternaria mould
Cladosporium leaf spot

Moniliaceae
Aspergillus flavus
Aspergillus niger
Penicillium expansum
Penicillium funiculosum
Penicillium italicum
Verticillium albo-astrum
Verticillium dahliae
Verticillium nigrescens

Aspergillus storage rot
Aspergillus rot
Fruitlet core rot
Blue mould
Verticillium wilt
Verticillium wilt
Verticillium wilt

Tuberculariaceae
Fusarium oxysporum
Stigmina carpophila
Trichothecium roseum

Leaf spot
Shot-hole
Pink rot

Tuberculariales

Pseudomonadaceae
Pseudomonas cichorii
Pseudomonas fluorescens
Pseudomonas marginalis pv. marginalis
Pseudomonas syringae pv. persicae
Pseudomonas syringae pv. syringae
Pseudomonas vindflava
Xanthomonas arboricola pv. pruni
Xanthomonas campestris pv. pruni

Bacterial leaf spot
Pink eye
Leaf spot
Bacterial canker
Leaf blight
Bacterial soft rot
Bacterial spot

Rhizobiaceae
Rhizobium radiobacter

Crown gall

Virus
Apple chlorotic leaf spot virus
Apple mosaic virus
Cherry (sour) green ring mottle virus
Cherry leaf roll virus [red raspberry strain]
Cherry necrotic rusty mottle virus
Cherry rasp leaf virus [American strain]
Cucumber mosaic virus
Prune dwarf virus
Prunus necrotic ringspot virus
Strawberry latent ringspot virus
Tobacco mosaic virus
Tobacco necrosis virus
Tobacco ringspot virus
Tomato ringspot virus [Grape yellow vein strain]

Disease of unknown aetiology
Apricot chlorotic leaf mottle agent
Apricot moorpark mottle agent
Apricot stone pitting agent
Cherry rusty spot agent
Peach calico agent
Peach chlorotic spot agent
<table>
<thead>
<tr>
<th>Plant Disease</th>
<th>Code</th>
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<tbody>
<tr>
<td>Peach seedling chlorosis agent</td>
<td>-</td>
</tr>
<tr>
<td>Peach yellow mottle agent</td>
<td>-</td>
</tr>
<tr>
<td>Plum fruit crinkle agent</td>
<td>-</td>
</tr>
<tr>
<td>Plum mosaic</td>
<td>-</td>
</tr>
<tr>
<td>Plum mottle leaf agent</td>
<td>-</td>
</tr>
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## Inspection, Testing and Treatment Requirements for *Prunus*

<table>
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<tr>
<th>ORGANISM TYPES</th>
<th>MAF-ACCEPTED METHODS (See notes below)</th>
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<td><strong>Insects</strong></td>
<td>Visual inspection AND one of the approved insecticide treatments (Refer to “Approved Treatments for Prunus”)</td>
</tr>
<tr>
<td><strong>Mite</strong></td>
<td>Visual inspection AND one of the approved miticide treatments (Refer to “Approved Treatments for Prunus”)</td>
</tr>
<tr>
<td><strong>Fungi</strong></td>
<td>Growing season inspection in PEQ for disease symptom expression AND plating on potato dextrose agar.</td>
</tr>
<tr>
<td><strong>Bacterium</strong></td>
<td></td>
</tr>
<tr>
<td><em>Bacillus mesentericus vulgatus</em></td>
<td>Growing season inspection in PEQ for disease symptom expression.</td>
</tr>
<tr>
<td><em>Pseudomonas amygdali</em></td>
<td>Growing season inspection in PEQ for disease symptom expression.</td>
</tr>
<tr>
<td><em>Pseudomonas syringae pv. erasicola</em></td>
<td>Growing season inspection in PEQ for disease symptom expression AND plating on King’s B medium.</td>
</tr>
<tr>
<td><em>Pseudomonas syringae pv. morsprunorum</em></td>
<td>Growing season inspection in PEQ for disease symptom expression AND plating on King’s B medium.</td>
</tr>
<tr>
<td><em>Spiroplasma citri</em></td>
<td>Growing season inspection in PEQ for disease symptom expression.</td>
</tr>
<tr>
<td><em>Xylella fastidiosa</em></td>
<td>Growing season inspection in PEQ for disease symptom expression AND PCR (Minsavage et al., 1994).</td>
</tr>
<tr>
<td><strong>Virus</strong></td>
<td></td>
</tr>
<tr>
<td><em>American plum line pattern virus</em></td>
<td>ELISA or PCR AND herbaceous indicators Chenopodium quinoa, Cucumis sativus and Nicotiana occidentalis AND TEM.</td>
</tr>
<tr>
<td><em>Apple stem grooving virus [Prunus-infecting strain]</em></td>
<td>ELISA or PCR AND herbaceous indicator Chenopodium quinoa AND TEM.</td>
</tr>
<tr>
<td><em>Apricot deformation mosaic virus</em></td>
<td>Woody indicators AND TEM.</td>
</tr>
<tr>
<td><em>Apricot latent virus</em></td>
<td>TEM.</td>
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<tr>
<td><em>Carnation Italian ringspot virus</em></td>
<td>TEM.</td>
</tr>
<tr>
<td><em>Cherry Hungarian rasp leaf virus</em></td>
<td>TEM.</td>
</tr>
<tr>
<td><em>Cherry leaf roll virus [strains not in New Zealand]</em></td>
<td>Woody indicators AND ELISA or PCR AND herbaceous indicators Chenopodium quinoa, Cucumis sativus and Nicotiana benthamiana AND TEM.</td>
</tr>
<tr>
<td><em>Cherry line pattern and leaf curl virus</em></td>
<td>Woody indicators AND TEM.</td>
</tr>
<tr>
<td><em>Cherry mottle leaf virus</em></td>
<td>Woody indicators AND ELISA or PCR AND herbaceous indicator Chenopodium quinoa AND TEM.</td>
</tr>
<tr>
<td><em>Cherry rapeseed leaf virus [strains not in New Zealand]</em></td>
<td>Woody indicators AND herbaceous indicators Chenopodium quinoa, Cucumis sativus and Nicotiana benthamiana AND TEM.</td>
</tr>
<tr>
<td><em>Cherry rosette disease associated virus</em></td>
<td>Woody indicators AND TEM.</td>
</tr>
<tr>
<td><em>Cherry rough fruit virus</em></td>
<td>TEM.</td>
</tr>
<tr>
<td><em>Cherry rusty mottle virus</em></td>
<td>Woody indicators AND TEM.</td>
</tr>
<tr>
<td><em>Cherry twisted leaf virus</em></td>
<td>Woody indicators AND herbaceous indicator Nicotiana occidentalis AND TEM.</td>
</tr>
<tr>
<td><em>Cherry virus A</em></td>
<td>TEM.</td>
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<tr>
<td><em>Epirus cherry virus</em></td>
<td>Woody indicators AND herbaceous indicators Chenopodium</td>
</tr>
<tr>
<td>Virus/Pathogen</td>
<td>Testing Methodology</td>
</tr>
<tr>
<td>-------------------------------------------------------------------------------</td>
<td>-----------------------------------------------------------------------------------------------------------------------------------------------------</td>
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<tr>
<td>Little cherry virus 1</td>
<td>Woody indicators AND TEM.</td>
</tr>
<tr>
<td>Little cherry virus 2</td>
<td>Woody indicators AND TEM.</td>
</tr>
<tr>
<td>Little cherry virus 3</td>
<td>Woody indicators AND TEM.</td>
</tr>
<tr>
<td>Myrobalan latent ringspot virus</td>
<td>Woody indicators AND herbaceous indicators <em>Chenopodium quinoa, Cucumis sativus</em> AND <em>Nicotiana benthamiana</em> AND TEM.</td>
</tr>
<tr>
<td>Peach enation virus</td>
<td>Woody indicators AND herbaceous indicator <em>Chenopodium quinoa</em> AND TEM.</td>
</tr>
<tr>
<td>Peach mosaic virus</td>
<td>Woody indicators AND herbaceous indicator <em>Chenopodium quinoa</em> AND TEM.</td>
</tr>
<tr>
<td>Peach rosette mosaic virus</td>
<td>Woody indicators AND ELISA or PCR AND herbaceous indicators <em>Chenopodium quinoa, Cucumis sativus</em> AND <em>Nicotiana benthamiana</em> AND TEM.</td>
</tr>
<tr>
<td>Peach violet mosaic virus</td>
<td>TEM.</td>
</tr>
<tr>
<td>Peach yellow leaf virus</td>
<td>TEM.</td>
</tr>
<tr>
<td>Petunia asteroid mosaic virus</td>
<td>Woody indicators AND TEM.</td>
</tr>
<tr>
<td>Plum bark necrosis stem pitting-associated virus</td>
<td>Woody indicators AND TEM.</td>
</tr>
<tr>
<td>Plum pox virus</td>
<td>Woody indicators AND ELISA or PCR (two sets) AND herbaceous indicator <em>Nicotiana benthamiana</em> AND TEM.</td>
</tr>
<tr>
<td>Prunus virus S</td>
<td>TEM.</td>
</tr>
<tr>
<td>Raspberry ringspot virus</td>
<td>Woody indicators AND herbaceous indicators <em>Chenopodium quinoa, Cucumis sativus</em> AND <em>Nicotiana benthamiana</em> AND TEM.</td>
</tr>
<tr>
<td>Sowbane mosaic virus</td>
<td>Herbaceous indicator <em>Chenopodium quinoa</em> AND TEM.</td>
</tr>
<tr>
<td>Stocky prune virus</td>
<td>TEM.</td>
</tr>
<tr>
<td>Tomato black ring virus</td>
<td>ELISA or PCR AND herbaceous indicators <em>Chenopodium quinoa</em> and <em>Cucumis sativus</em> AND TEM.</td>
</tr>
<tr>
<td>Tomato bushy stunt virus</td>
<td>ELISA or PCR AND herbaceous indicators <em>Chenopodium quinoa, Cucumis sativus</em> AND <em>Nicotiana benthamiana</em> AND TEM.</td>
</tr>
<tr>
<td>Tomato ringspot virus [strains not in New Zealand]</td>
<td>Woody indicators AND ELISA or PCR AND herbaceous indicators <em>Chenopodium quinoa, Cucumis sativus</em> AND <em>Nicotiana benthamiana</em> AND TEM.</td>
</tr>
<tr>
<td>Viroid</td>
<td></td>
</tr>
<tr>
<td>Hop stunt viroid</td>
<td>Hybridization or PAGE or PCR.</td>
</tr>
<tr>
<td>Peach latent mosaic viroid</td>
<td>Woody indicators AND Hybridization or PAGE or PCR.</td>
</tr>
<tr>
<td>Phytoplasmas</td>
<td>Nested PCR using the universal phytoplasma fU5/rU3 (Lorenz et al. 1995) and R16F2n/R16R2 primers (Gundersen et al. 1996).</td>
</tr>
<tr>
<td>Diseases of unknown aetiology</td>
<td>Woody indicators AND growing season inspection in PEQ for disease symptom expression.</td>
</tr>
</tbody>
</table>

**Notes:**
1. The unit for testing is an individual plantlet or cutting. Each single plantlet and cutting must be labelled individually and tested separately.
2. Transmission electron microscopy (TEM); in the spring, leaves from grafted cuttings must be observed under the electron microscope for virus particles.
3. Herbaceous indexing: At least two plants of each herbaceous indicator species must be used in each test. Tests are to be carried out using the new season’s growth from grafted cuttings in the spring. Plants shall be sampled from at least two positions on every plant.
including a young, fully expanded leaf at the top of each plant and an older leaf from a midway position. Herbaceous indicator plants must be grown under appropriate temperatures and must be shaded for 24 hrs prior to inoculation. Maintain post-inoculated indicator species under appropriate glasshouse conditions for at least 4 weeks. Inspect inoculated indicator plants at least twice per week for symptoms of virus infection.

4. Woody indexing:

<table>
<thead>
<tr>
<th>Woody indicator</th>
<th>Prunus armeniaca</th>
<th>Prunus avium &amp; Prunus cerasus</th>
<th>Prunus domestica &amp; Prunus salicina</th>
<th>Prunus dulcis</th>
<th>All other Prunus spp.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Prunus armeniaca cv. Moorpark</td>
<td>x3</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Prunus armeniaca cv. Tilton</td>
<td>x3</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Prunus avium cv. Bing</td>
<td>x3</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Prunus avium cv. Sam</td>
<td>x3</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Prunus domestica cv. Shiropum</td>
<td>x3</td>
<td>x3</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Prunus persica cv. Elberta or GF305</td>
<td>x4</td>
<td>x4</td>
<td>x4</td>
<td>x4</td>
<td>x4</td>
</tr>
<tr>
<td>Total indicators</td>
<td>10</td>
<td>13</td>
<td>7</td>
<td>4</td>
<td>13</td>
</tr>
</tbody>
</table>

At least three plants (four plants for Prunus persica cv. Elberta or GF305) of each woody indicator must be used in each test. All woody indicators are to be inoculated by double budding. Inoculations are to be carried out using the dormant, imported cuttings during winter. The inoculated woody indicator plants must be inspected for symptoms of pathogen infection for at least 9 months.

5. Molecular tests for viroids. Tests are to be carried out on dormant, grafted cuttings during the winter after importation.

6. Polymerase chain reaction (PCR) tests for phytoplasmas. Tests are to be carried out on two occasions, firstly using the imported dormant cuttings during winter and secondly using the new season’s growth from grafted cuttings during the following summer.

7. Enzyme linked immunosorbent assay (ELISA) and PCR tests for viruses. Tests are to be carried out using the new season’s growth from grafted cuttings in the spring. Plants shall be sampled from at least two positions on every plant including a young, fully expanded leaflet at the top of each stem and an older leaflet from a midway position.

8. All PCR, ELISA and hybridization tests must be validated using positive controls prior to use in quarantine testing. Positive and negative controls (including a blank water control for PCR) must be used in all tests. Ideally positive internal controls and a negative plant control should also be used in PCR tests.

9. Inspect Prunus plants for signs of pest and disease at least twice per week during periods of active growth and once per week during dormancy.

10. With prior notification, MAF will accept other internationally recognised testing methods.
References


Pseudotsuga

Note: The entry conditions in this schedule only apply to species in the Plants Biosecurity Index listed under Import Specifications for Nursery Stock as “see 155.02.06 under Pseudotsuga”, and are additional to those specified in sections 1, 2 and 3 of the import health standard.

GENERAL CONDITIONS:

Countries: All

Quarantine Pests: Bursaphelenchus spp.; Lophodermium spp.; Uredinales; Xylella fastidiosa

Entry Conditions: Basic; with variations and additional conditions as specified below:

A. For Whole Plants:
PEQ: Level 3
Minimum Period: 6 months

B. For Tissue Cultures:
As for Standard Entry Conditions for Tissue Cultures - see Section 2.2.2, but subject to examination at a MAF-registered laboratory at the importers expense, prior to release to the importer.
<table>
<thead>
<tr>
<th>Scientific name</th>
<th>Commodity Sub-class</th>
<th>Date Issued</th>
</tr>
</thead>
<tbody>
<tr>
<td><em>Pyrus communis</em></td>
<td>Cuttings (dormant)</td>
<td>12 June 1998</td>
</tr>
</tbody>
</table>
Note: The entry conditions in this schedule only apply to species in the Plants Biosecurity Index listed under Import Specifications for Nursery Stock as “see 155.02.06 under Quercus”, and are additional to those specified in sections 1, 2 and 3 of the import health standard.

GENERAL CONDITIONS:

Countries: Australia, Austria, Belgium, Denmark, Finland, France, Germany, Greece, Hungary, Ireland, Italy, Luxembourg, The Netherlands, Norway, Portugal, Spain, Sweden, Switzerland, United Kingdom, USA.

Quarantine Pests: Ceratocystis fagacearum; Cryphonectria parasitica; Cronatium quercuum; Phytophthora ramorum; Xylella fastidiosa

Entry Conditions: Basic; with variations and additional conditions as specified below:

A. For Whole Plants:
PEQ: Level 3
Minimum Period: 3 months

B. For Tissue Cultures:
As for Standard Entry Conditions for Tissue Cultures - see Section 2.2.2, but subject to examination at a MAF-registered laboratory at the importers expense, prior to release to the importer.
Ranunculus

Note: The entry conditions in this schedule only apply to species in the Plants Biosecurity Index listed under Import Specifications for Nursery Stock as “see 155.02.06 under Ranunculus”, and are additional to those specified in sections 1, 2 and 3 of the import health standard. These conditions do not apply to Ranunculus arvensis, Ranunculus repens and Ranunculus sardous, for which there is currently no import health standard.

GENERAL CONDITIONS:

Countries: All

Quarantine Pests: Phymatotrichopsis omnivora; Virus diseases

Entry Conditions: Basic; with variations and additional conditions as specified below:

A. For Whole Plants:
PEQ: Level 2
Minimum Period: 6 months

B. For Dormant Bulbs from Australia, Austria, Belgium, Canada, Denmark, Finland, France, Germany, Greece, Ireland, Israel, Italy, Luxembourg, The Netherlands, Portugal, South Africa, Spain, Sweden, United Kingdom:
OPTION 1:
No import permit is required.
PEQ: None
Additional Declaration(s):
“In addition to inspection of dormant bulbs prior to shipment, the crop from which the bulbs were derived was inspected during the growing season according to appropriate procedures, and considered free of quarantine pests, and practically free from other injurious pests.”
OPTION 2:
PEQ: Level 1
Minimum Period: 3 months

C. For Dormant Bulbs from the USA:
No import permit is required unless the bulbs require post-entry quarantine.
PEQ: None or Level 2 (see below)
Additional Declaration(s):
1. "In addition to inspection of dormant bulbs prior to shipment, the crop from which the bulbs were derived was inspected during the growing season according to appropriate procedures, and considered free of quarantine pests, and practically free from other injurious pests".
2. "The dormant tubers have been sourced from a “Pest free area”, free from Phymatotrichopsis omnivora".
OR
(i) "The dormant bulbs have been sourced from a “Pest free place of production”, free from Phymatotrichopsis omnivora".
AND
(ii) the consignment must be treated for fungi as described in Section 2.2.1.7 “Pesticide treatments for dormant bulbs”. If satisfied that the pre-shipment activities have been undertaken, the exporting country NPPO must confirm this by recording the treatments applied in the “Disinfestation and/or Disinfection Treatment” section of the phytosanitary certificate.

AND
(iii) Post-entry quarantine: Upon arrival in New Zealand the dormant bulbs will require a period of at least 3 months in Level 2 post-entry quarantine.

D. For Dormant Bulbs from Countries other than Australia, Austria, Belgium, Canada, Denmark, Finland, France, Germany, Greece, Ireland, Israel, Italy, Luxembourg, The Netherlands, Portugal, South Africa, Spain, Sweden, United Kingdom, USA:
PEQ: Level 1 or Level 2 (see below)
Minimum Period: 3 months
Additional Declaration(s):
1. "The dormant bulbs in this consignment have been:
   - derived from a crop which was inspected during the growing season according to appropriate procedures and found to be free of regulated pests.
   AND
   - treated for regulated insects as described in section 2.2.1.7 of the basic conditions within 7 days prior to freezing, cold-storage or shipment."
2. "The dormant tubers have been sourced from a “Pest free area”, free from Phymatotrichopsis omnivora”.
    OR
(i) "The dormant bulbs have been sourced from a “Pest free place of production”, free from Phymatotrichopsis omnivora”.
    AND
(ii) the consignment must be treated for fungi as described in Section 2.2.1.7 “Pesticide treatments for dormant bulbs”. If satisfied that the pre-shipment activities have been undertaken, the exporting country NPPO must confirm this by recording the treatments applied in the “Disinfestation and/or Disinfection Treatment” section of the phytosanitary certificate.
    AND
(iii) Post-entry quarantine: Upon arrival in New Zealand the dormant bulbs will require a period of at least 3 months in Level 2 post-entry quarantine.

E. For Tissue Cultures:
As for Standard Entry Conditions for Tissue Cultures - see Section 2.2.2.
PLUS:
Additional Declaration:
"The cultures have been derived from parent stock tested and found free of virus diseases."
**Rhododendron**

**Note:** The entry conditions in this schedule only apply to species in the Plants Biosecurity Index listed under Import Specifications for Nursery Stock as “see 155.02.06 under *Rhododendron*”, and are additional to those specified in sections 1, 2 and 3 of the import health standard.

**GENERAL CONDITIONS:**

**Countries:** All

**Quarantine Pests:** *Microsphaera* spp.; *Ovulinia azaleae*; *Phytophthora ramorum*; *Uredinales*

**Entry Conditions:** Basic; with variations and additional conditions as specified below:

**A. For Cuttings and Whole Plants from Australia, Canada, Israel and South Africa (these commodities may only be imported from these countries):**

- **PEQ:** Level 2
- **Minimum Period:** 3 months
- **Additional Declaration:**
  1. "The plants have been sourced from a “Pest free area”, free from *Phytophthora ramorum*".
  2. "*Microsphaera* spp., and the following rust diseases are not known to occur on *Rhododendron* spp. in ______ (the country or state where the plants were grown) ______".

  - *Aecidium rhododendri*; *Aecidium sinorhododendri*; *Chrysomyxa ledi*; *Chrysomyxa ledicola*; *Chrysomyxa dieteli*; *Chrysomyxa expansa*; *Chrysomyxa himalensis*; *Chrysomyxa komarovii*; *Chrysomyxa piperiana*; *Chrysomyxa roanensis*; *Chrysomyxa succinea*; *Chrysomyxa taghishae*;

  - *Puccinia rhododendri*; *Pucciniastrum vaccinii*

  **OR**

  a) All visible flower buds are to be removed prior to export; and

  b) On arrival in New Zealand the plant material is to be treated, under the supervision of an Inspector, at a MAF-registered transitional facility by dipping in Benomyl, Carbendazim or Thiophanate methyl [choose one] at a rate of 250mg a.i. per litre.

**B. For Tissue Cultures:**

As for **Standard Entry Conditions for Tissue Cultures** - see Section 2.2.2.
<table>
<thead>
<tr>
<th>Scientific name</th>
<th>Commodity Sub-class</th>
<th>Date Issued</th>
</tr>
</thead>
<tbody>
<tr>
<td><em>Ribes nigrum</em></td>
<td>Whole Plants</td>
<td>19 June 1998</td>
</tr>
<tr>
<td><em>Ribes uva-crispa</em></td>
<td>Whole Plants</td>
<td>19 June 1998</td>
</tr>
</tbody>
</table>
Rosa

**Note:** The entry conditions in this schedule only apply to species in the Plants Biosecurity Index listed under Import Specifications for Nursery Stock as “see 155.02.06 under Rosa”, and are additional to those specified in sections 1, 2 and 3 of the import health standard. These conditions do not apply to Rosa gymnocarpa, for which there is currently no import health standard.

**GENERAL CONDITIONS:**

**Countries:** Australia, Austria, Belgium, Denmark, Finland, France, Germany, Greece, Hungary, Ireland, Italy, Japan, Luxembourg, The Netherlands, Norway, Portugal, Spain, Sweden, Switzerland, United Kingdom.

**Quarantine Pests:** Uredinales; Xylella fastidiosa

**Entry Conditions:** Basic; with variations and additional conditions as specified below:

A. **For Whole Plants:**
   - **PEQ:** Level 2
   - **Minimum Period:** 6 months
   - **Additional Declaration(s):**
     1. "The plants have been dipped in propiconazole at the rate of 5g a.i. per 10 litres of water".
     2. "The plants have been sourced from a “Pest free area”, free from Xylella fastidiosa".

B. **For Cuttings (dormant):**
   - **PEQ:** Level 1
   - **Minimum Period:** 6 months
   - **Additional Declaration(s):**
     "The plants have been sourced from a “Pest free area”, free from Xylella fastidiosa".

C. **For Tissue Cultures:**
   As for Standard Entry Conditions for Tissue Cultures - see Section 2.2.2.
<table>
<thead>
<tr>
<th>Scientific name</th>
<th>Commodity Sub-class</th>
<th>Date Issued</th>
</tr>
</thead>
<tbody>
<tr>
<td><em>Rubus x loganobaccus</em></td>
<td>Rooted Cuttings /Whole Plants</td>
<td>19 June 1998</td>
</tr>
</tbody>
</table>
**Salix**

**Note:** The entry conditions in this schedule only apply to species in the Plants Biosecurity Index listed under Import Specifications for Nursery Stock as “see 155.02.06 under Salix”, and are additional to those specified in sections 1, 2 and 3 of the import health standard.

**GENERAL CONDITIONS:**

**Countries:** All

**Quarantine Pests:** *Erwinia salicis, Melampsora spp., Phytophthora ramorum; Xylella fastidiosa*

**Entry Conditions:** Basic; with variations and additional conditions as specified below:

**A. For Whole Plants:**
**PEQ:** Level 3
**Minimum Period:** 3 months

**B. For Tissue Cultures:**
As for **Standard Entry Conditions for Tissue Cultures** - see Section 2.2.2, but subject to examination at a MAF-registered laboratory at the importers expense, prior to release to the importer.
Sandersonia

Note: The entry conditions in this schedule only apply to species in the Plants Biosecurity Index listed under Import Specifications for Nursery Stock as “see 155.02.06 under Sandersonia”, and are additional to those specified in sections 1, 2 and 3 of the import health standard.

1. Type of Sandersonia nursery stock approved for entry into New Zealand
   Dormant bulbs
   Plants in tissue culture

2. Pests of Sandersonia
   Refer to the pest list.

3. Entry conditions for:
   3.1 Sandersonia dormant bulbs from any country
      (i) Documentation
         Phytosanitary certificate: a completed phytosanitary certificate, issued by the national plant protection organisation (NPPO) of the exporting country, is required.
         Import permit: no import permit is required.

         (ii) Phytosanitary requirements
         Before a phytosanitary certificate is issued, the exporting country NPPO must be satisfied that the following activities required by the New Zealand Ministry of Agriculture and Forestry (MAF) have been undertaken.
         The Sandersonia dormant bulbs have been:
         - inspected in accordance with appropriate official procedures and found to be free of any visually detectable regulated pests.
         AND
         - held in a manner to ensure that infestation/reinfestation does not occur, following certification.

         (iii) Additional declarations to the phytosanitary certificate
         No additional declarations are required.

   3.2 Sandersonia plants in tissue culture from any country
      (i) Documentation
         Phytosanitary certificate: a completed phytosanitary certificate, issued by the national plant protection organisation (NPPO) of the exporting country, is required.
         Import permit: no import permit is required.

         (ii) Special tissue culture media requirements
         The tissue culture media must not contain charcoal.

         (iii) Phytosanitary requirements
         Before a phytosanitary certificate is issued, the exporting country NPPO must be satisfied that the following activities required by the New Zealand Ministry of Agriculture and Forestry (MAF) have been undertaken.
         The Sandersonia plants in tissue culture have been:
- inspected in accordance with appropriate official procedures and found to be free of any visually detectable regulated pests.

(iv) Additional declarations to the phytosanitary certificate
No additional declarations are required.
Pest List for *Sandersonia*

**REGULATED PESTS** (actionable)
There are no regulated pests known to be associated with the commodity

**NON-REGULATED PESTS** (non-actionable)

**Mite**

**Arachnida**

**Acarina**

**Histiomidae**

*Histioptoma feroniarum* damp mite

**Fungus**

**Ascomycota**

**Hypocreales**

*Gibberella acuminata* (anamorph *Fusarium acuminatum*) fusarium storage rot

*Gibberella avenacea* (anamorph *Fusarium avenaceum*) fusarium stem canker

*Gibberella zeae* (anamorph *Fusarium graminearum*) headblight of maize

*Nectria haematococca* (anamorph *Fusarium solani*) fusarium fruit rot

*Nectria radicola* (anamorph *Cylindrocarpon destructans*) rot

**Leotiales**

**Sclerotiniaceae**

*Botrytis fuckeliana* (anamorph *Botrytis cinerea*) grey mould

**Saccharomycetales**

**Dipodascaceae**

*Dipodascus geotrichum* (anamorph *Geotrichum candidum*) sour rot

**Basidiomycota: Basidiomycetes**

**Ceratobasidiales**

**Ceratobasidiaceae**

*Thanatephorus cucumeris* (anamorph *Rhizoctonia solani*) rhizoctonia rot

**Stereales**

**Atheliaceae**

*Athelia rolfsii* (anamorph *Sclerotium rolfsii*) Rolf's disease

**mitosporic fungi (Coelomycetes)**

**Sphaeropsidales**

**Sphaerioidaceae**

*Phoma exigua* phoma rot

*Pyrenochaeta terrestris* pink root rot

**mitosporic fungi (Hyphomycetes)**

**Tuberculariales**

**Tuberculariaceae**

*Fusarium culmorum* dry rot

*Fusarium oxysporum* leaf spot

*Fusarium sacchari* decline

**Bacterium**

**Enterobacteriaceae**

*Pectobacterium carotovorum* bacterial soft rot

**Virus**

*Cucumber mosaic virus* -
**Solanum tuberosum**

**Note:** The entry conditions in this schedule only apply to species in the Plants Biosecurity Index listed under Import Specifications for Nursery Stock as “see 155.02.06 under *Solanum tuberosum*”, and are additional to those specified in sections 1, 2 and 3 of the import health standard.

1. **Type of **Solanum tuberosum** nursery stock approved for entry into New Zealand**

   Plants in tissue culture

   *Solanum tuberosum* can be imported into New Zealand as plants in tissue culture from any country.

2. **Pests of **Solanum tuberosum**

   Refer to the pest list.

3. **Entry conditions for:**

   3.1 **Solanum tuberosum** plants in tissue culture from any country

   (i) **Documentation**

   **Import permit is required**

   **Declaration for genetically modified organisms is required:** Refer to section 5 for details.

   **Phytosanitary certificate:** a completed phytosanitary certificate issued by the exporting country national plant protection organisation (NPPO) must accompany all *Solanum tuberosum* plants in tissue culture exported to New Zealand.

   (ii) **Special tissue culture media requirements**

   The tissue culture media must not contain charcoal.

   (iii) **Phytosanitary requirements**

   The exporting country NPPO must be satisfied that the requirements of the model phytosanitary certificate have been met before the phytosanitary certificate is issued.

   (iv) **Additional declarations to the phytosanitary certificate**

   There are no additional declarations to the phytosanitary certificate.

   (v) **Inspection, testing and treatments of the consignment**

   Upon arrival, the inspection, treatment and testing requirements for specified pests must be undertaken at a New Zealand Level 3 MAF-accredited facility. Refer to *Solanum tuberosum* Inspection and Testing Requirements following the *Solanum tuberosum* pest list.

   (vi) **Post-entry quarantine**

   **PEQ:** Level 3

   **Quarantine Period:** This is the time required to complete inspections and/or indexing to detect regulated pests. 6 months is an indicative minimum quarantine period. The quarantine period may be extended if material is slow growing, pests are detected or additional treatments/testing are required.
4. **Validation of test results and audit of treatments at MAF-accredited laboratories or facilities**

For all imported *Solanum tuberosum* plants in tissue culture, MAF reserves the right to validate all testing and audit all treatment processes that are undertaken by a facility accredited by MAF for testing/treatment purposes. This applies to MAF-accredited facilities offshore and within New Zealand. Audits will be conducted on a regular basis and at the expense of the importer.

5. **Declaration for genetically modified organisms**

All import permit applications must include a signed declaration that the *Solanum tuberosum* plants in tissue culture are not genetically modified organisms, as defined by the New Zealand Hazardous Substances and New Organisms Act 1996 (HSNO Act, 1996). For a copy of the declaration form refer to the end of this schedule.
Pest List for *Solanum tuberosum*

**REGULATED PESTS (actionable)**

**Mite**
- *Arachnida*
- *Acarina*
  - *Tetranychidae*
    - *Tetranychus evansi*  
      tetranychid mite

**Fungi**
- *Chytridiomycota*
- *Chytridiales*
  - *Synchytriaceae*
    - *Synchytrium endobioticum* [official control]  
      potato wart

**Mitosporic Fungi (Coelomycetes)**
- *Sphaeropsidales*
  - *Sphaerioidaceae*
    - *Phoma andigena var. andina*  
      phoma leaf spot

**Unknown Mitosporic Fungi**

**Oomycota**
- *Pythiales*
  - *Pythiaceae*
    - *Phytophthora infestans* [A2 mating strain]  
      late blight

**Bacteria**
- *Corynebacteriaceae*
  - *Clavibacter michiganensis* subsp. *sepedonicus*  
    potato ring rot

**Enterobacteriaceae**
- *Erwinia carotovora* subsp. *betavasculorum*  
  bacterial sudden yellows death
- *Erwinia chrysanthemi* pv. *chrysanthemi*  
  bacterial soft rot
- *Erwinia chrysanthemi* pv. *paradisiaca* -
- *Erwinia chrysanthemi* pv. *parthenii* -

**Viroids**
- *Columnnea latent viroid* -
- *Potato spindle tuber viroid* [transient] -
- *Tomato chlorotic dwarf viroid* -
- *Tomato planta macho viroid* -

**Viruses**
- *Abutilon mosaic begomovirus* -
- *Arracacha A nepovirus* -
- *Arracacha B nepovirus* -
- *Asparagus 3 potexvirus* -
- *Beet curly top curtovirus* -
- *Cassava green mottle nepovirus* -
- *Cassia mild mosaic carlavirus* -
- *Eggplant mosaic tymovirus* -
- *Eggplant mottled dwarf nucleorhabdovirus* -
- *Henbane mosaic potyvirus* -
- *Melilotus mosaic potyvirus* -
- *Pelargonium line pattern carmovirus* -
- *Pepino mosaic potexvirus* -
- *Pepper veinal mottle potyvirus* -
<table>
<thead>
<tr>
<th>Disease</th>
<th>Status</th>
</tr>
</thead>
<tbody>
<tr>
<td>Potato 14R tobamovirus</td>
<td>-</td>
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<tr>
<td>Potato Andean latent tymovirus</td>
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<tr>
<td>Potato Andean mottle comovirus</td>
<td>-</td>
</tr>
<tr>
<td>Potato black ringspot nepovirus</td>
<td>-</td>
</tr>
<tr>
<td>Potato deforming mosaic begomovirus</td>
<td>-</td>
</tr>
<tr>
<td>Potato latent carlavirus</td>
<td>-</td>
</tr>
<tr>
<td>Potato mop-top furovirus</td>
<td>-</td>
</tr>
<tr>
<td>Potato P carlavirus</td>
<td>-</td>
</tr>
<tr>
<td>Potato rough dwarf carlavirus</td>
<td>-</td>
</tr>
<tr>
<td>Potato T trichovirus</td>
<td>-</td>
</tr>
<tr>
<td>Potato U nepovirus</td>
<td>-</td>
</tr>
<tr>
<td>Potato V potyivirus</td>
<td>-</td>
</tr>
<tr>
<td>Potato Y potyirus [strains not in New Zealand]</td>
<td>-</td>
</tr>
<tr>
<td>Potato yellow dwarf nucleorhabdovirus</td>
<td>-</td>
</tr>
<tr>
<td>Potato yellow mosaic begomovirus</td>
<td>-</td>
</tr>
<tr>
<td>Potato yellow vein crinivirus</td>
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<tr>
<td>Potato yellowing alfamovirus</td>
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<td>Solanum apical leaf curling begomovirus</td>
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<td>Solanum yellows luteovirus</td>
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<tr>
<td>Southern potato latent carlavirus</td>
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<tr>
<td>Sowbane mosaic sobemovirus</td>
<td>-</td>
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<tr>
<td>Tobacco etch potyivirus*</td>
<td>-</td>
</tr>
<tr>
<td>Tobacco necrosis necrovirus [strains not in New Zealand]</td>
<td>-</td>
</tr>
<tr>
<td>Tobacco necrotic dwarf luteovirus*</td>
<td>-</td>
</tr>
<tr>
<td>Tobacco rattle tobravirus [strains not in New Zealand]</td>
<td>-</td>
</tr>
<tr>
<td>Tobacco streak ilarivirus [strains not in New Zealand]</td>
<td>-</td>
</tr>
<tr>
<td>Tobacco stunt varicosavirus*</td>
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<tr>
<td>Tomato black ring nepovirus</td>
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</tr>
<tr>
<td>Tomato bushy stunt tombusvirus*</td>
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<tr>
<td>Tomato infectious chlorosis crinivirus</td>
<td>-</td>
</tr>
<tr>
<td>Tomato leaf curl begomovirus - Australia*</td>
<td>-</td>
</tr>
<tr>
<td>Tomato leaf curl begomovirus - New Delhi</td>
<td>-</td>
</tr>
<tr>
<td>Tomato top necrosis nepovirus*</td>
<td>-</td>
</tr>
<tr>
<td>Tomato yellow leaf curl begomovirus</td>
<td>-</td>
</tr>
<tr>
<td>Tomato yellow mosaic begomovirus</td>
<td>-</td>
</tr>
<tr>
<td>Tomato yellow vein streak begomovirus*</td>
<td>-</td>
</tr>
<tr>
<td>Tomato yellow mosaic begomovirus*</td>
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<tr>
<td>Wild potato mosaic potyvirus</td>
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<tr>
<td>Phytoplasmas</td>
<td></td>
</tr>
<tr>
<td>Eggplant little leaf phytoplasma</td>
<td>-</td>
</tr>
<tr>
<td>Peanut witches' broom*</td>
<td>-</td>
</tr>
<tr>
<td>Potato marginal flavescence</td>
<td>-</td>
</tr>
<tr>
<td>Potato phylody phytoplasma</td>
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<tr>
<td>Potato purple-top roll phytoplasma</td>
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<tr>
<td>Potato purple-top wilt phytoplasma</td>
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<tr>
<td>Potato round leaf phytoplasma</td>
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<tr>
<td>Potato stolbur phytoplasma</td>
<td>-</td>
</tr>
<tr>
<td>Potato witches' broom phytoplasma</td>
<td>-</td>
</tr>
<tr>
<td>Saq'O disease</td>
<td>-</td>
</tr>
</tbody>
</table>

**Note:** * Pathogens that infect *Solanum tuberosum* experimentally (i.e. not yet found to infect potato naturally under field conditions).
NON-REGULATED PESTS (non-actionable)

**Fungi**

**Ascomycota**

**Erysiphales**

Erysiphaceae

Erysiphe cichoracearum (anamorph Oidium asteris-punicei) 
powdery mildew

**Ascomycota**

**Hypocreales**

Hypocreaceae

Gibberella avenacea (anamorph Fusarium avenaceum) 
Fusarium stem canker

**Basidiomycota: Basidiomycetes**

**Stereales**

Atheliaceae

Athelia rolfsii (anamorph Sclerotium rolfsii) 
Rolf's disease

**Mitosporic Fungi (Coelomycetes)**

**Sphaeropsidales**

Sphaerioidaceae

Phoma destructiva 
bulb rot
Phoma exigua var. exigua 
gangrene
Phoma foveata 
gangrene
Septoria lycopersici 
leaf spot

**Unknown Coelomycetes**

**Unknown Coelomycetes**

Colletotrichum coccodes 
Anthracnose

**Mitosporic Fungi (Hyphomycetes)**

**Hyphomycetales**

Dematiaceae

Alternaria alternata 
black stalk rot
Alternaria solani 
leaf spot
Ulocladium atrum 
foliage spot

**Moniliaceae**

Verticillium albo-atrum 
verticillium wilt
Verticillium dahliae 
verticillium wilt
Verticillium nigrescens 
verticillium wilt
Verticillium tricorpus 
verticillium wilt

**Tuberculariales**

**Tuberculariaceae**

Fusarium oxysporum 
leaf spot
Fusarium solani f. sp. eumartii -

**Oomycota**

**Pythiales**

Pythiaceae

Phytophthora infestans [A1 mating strain] 
late blight

**Bacteria**

**Corynebacteriaceae**

Clavibacter michiganensis subsp. michiganensis 
bacterial canker

**Enterobacteriaceae**

Erwinia carotovora subsp. atroseptica 
bacterial soft rot
Erwinia carotovora subsp. carotovora 
bacterial soft rot
Erwinia chrysanthemi pv. dieffenbachii -

**Pseudomonadaceae**

Pseudomonas syringae pv. syringae 
bacterial soft rot
Ralstonia solanacearum (Race 1) 
bacterial wilt
Ralstonia solanacearum (Race 3) 
bacterial wilt
Xanthomonas vesicatoria 
bacterial spot

**Rhizobiaceae**
Agrobacterium rhizogenes  
ahairy root
Agrobacterium tumefaciens  
crown gall

**Viruses**

*Alfalfa mosaic alfamovirus* -
*Cucumber mosaic cucumovirus* -
*Potato A potyvirus* -
*Potato M carlavirus* -
*Potato S carlavirus* -
*Potato X potexvirus* -
*Potato Y potyvirus [C, N and O strains]* -
*Potato aucuba mosaic potexvirus* -
*Potato leafroll luteovirus* -
*Tobacco mosaic tobamovirus* -
*Tobacco necrosis necrovirus [A strain]* -
*Tobacco rattle tobravirus [Paeonia and Narcissus infecting strains]* -
*Tobacco ringspot nepovirus* -
*Tobacco streak ilarvirus [Black raspberry latent strain]* -
*Tomato mosaic tobamovirus* -
*Tomato spotted wilt tospovirus* -
### Inspection and Testing Requirements for MAF-accredited facilities, for *Solanum tuberosum*

<table>
<thead>
<tr>
<th>ORGANISM TYPES</th>
<th>ACCEPTABLE METHODS</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mites</td>
<td>Binocular microscope inspection.</td>
<td></td>
</tr>
<tr>
<td><strong>Fungi</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td><em>Aecidium cantensis</em></td>
<td>Growing season inspection in PEQ for symptom expression.</td>
<td>S. <em>endobioticum</em> cannot be cultured. It is identified by microscopic examination of affected plants. This organism belongs to the Myxomycetes in the Kingdom Protozoa.</td>
</tr>
<tr>
<td><em>Phoma andigena var. andina</em></td>
<td>Growing season inspection in PEQ for symptom expression.</td>
<td></td>
</tr>
<tr>
<td><em>Phytophthora infestans</em> (A2 mating strain)</td>
<td>Growing season inspection in PEQ for symptom expression.</td>
<td></td>
</tr>
<tr>
<td><em>Synchytrium endobioticum</em> [official control]</td>
<td>Growing season inspection in PEQ for symptom expression.</td>
<td></td>
</tr>
<tr>
<td><strong>Bacteria</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td><em>Clavibacter michiganensis</em> subsp. <em>sepedonicus</em></td>
<td>Growing season inspection in PEQ for symptom expression AND Immunofluorescence (monoclonal antibody, clone 9A1, Agdia) OR ELISA AND grow plantlets on Murashige and Skoog medium (see note 18) OR PCR (Pastrik 2000) AND grow plantlets on Murashige and Skoog medium (see note 18).</td>
<td>These testing methods will only detect to the species level. Further identification required for subspecies.</td>
</tr>
<tr>
<td><em>Erwinia carotovora</em> subsp. <em>betavascularorum</em></td>
<td>Growing season inspection in PEQ for symptom expression AND plating on selective pectate media e.g. crystal violet pectate medium.</td>
<td>Possible synonym <em>Pectobacterium betavascularorum</em> (Gardan et al., 2003). The taxonomy is in dispute. These testing methods will only detect to the species level. Further identification required for subspecies.</td>
</tr>
<tr>
<td><em>Erwinia chrysanthemi</em> pv. <em>chrysanthemi</em></td>
<td>Growing season inspection in PEQ for symptom expression AND plating on selective pectate media.</td>
<td>These testing methods will only detect to the species level. Further identification required for subspecies.</td>
</tr>
<tr>
<td><em>Erwinia chrysanthemi</em> pv. <em>paradisiaca</em></td>
<td>Growing season inspection in PEQ for symptom expression AND plating on selective pectate media.</td>
<td>These testing methods will only detect to the species level. Further identification required for subspecies.</td>
</tr>
<tr>
<td><em>Erwinia chrysanthemi</em> pv. <em>parthenii</em></td>
<td>Growing season inspection in PEQ for symptom expression AND plating on selective pectate media.</td>
<td>These testing methods will only detect to the species level. Further identification required for subspecies.</td>
</tr>
</tbody>
</table>
### Viroid

<table>
<thead>
<tr>
<th>Viroid</th>
<th>Detection Method</th>
<th>Additional Information</th>
</tr>
</thead>
<tbody>
<tr>
<td>Potato spindle tuber viroid [transient]</td>
<td>PCR using two sets of primers (e.g. Shamloul et al. 1997 and Nakahara et al. 1999) OR Return PAGE (with silver staining) OR Hybridisation (P32 or digoxigenin labelled RNA probes).</td>
<td></td>
</tr>
</tbody>
</table>

### Viruses

<table>
<thead>
<tr>
<th>Virus</th>
<th>Detection Method</th>
<th>Additional Information</th>
</tr>
</thead>
<tbody>
<tr>
<td>Arracacha B nepovirus</td>
<td>ELISA AND herbaceous indicators Ca (4 plants) AND TEM.</td>
<td>Sap transmitted with difficulty. ELISA must detect the oca strain</td>
</tr>
<tr>
<td>Beet curly top curtovirus</td>
<td>PCR using primers of Rojas et al. 1993 AND TEM.</td>
<td>Cannot be transmitted by sap inoculation</td>
</tr>
<tr>
<td>Eggplant mottled dwarf nucleorhabdovirus</td>
<td>Herbaceous indicators Nb, Nc, Nd AND TEM.</td>
<td></td>
</tr>
<tr>
<td>Potato Andean latent tymovirus</td>
<td>ELISA AND herbaceous indicators Nb, No AND TEM.</td>
<td></td>
</tr>
<tr>
<td>Potato Andean mottle comovirus</td>
<td>ELISA AND herbaceous indicators Nc, Nd AND TEM.</td>
<td></td>
</tr>
<tr>
<td>Potato black ringspot nepovirus</td>
<td>ELISA AND herbaceous indicators Cq, No AND TEM.</td>
<td></td>
</tr>
<tr>
<td>Potato deforming mosaic begomovirus</td>
<td>PCR using universal primers of Rojas et al. (1993) or Wyatt and Brown (1996) OR the universal ELISA for begomoviruses (Agdia) AND TEM.</td>
<td>Virus not transmitted by sap inoculation.</td>
</tr>
<tr>
<td>Potato latent carlavirus</td>
<td>PCR using universal primers for carlavirus (Badge et al. 1996) AND TEM.</td>
<td>The use of indicator plants is unreliable.</td>
</tr>
<tr>
<td>Potato mop-top furovirus</td>
<td>ELISA AND herbaceous indicators Ca, Cq, Nd AND TEM.</td>
<td>ELISA can be used to detect the virus in indicator plants but may not be reliable for potato in which virus is usually in low concentration or erratically distributed.</td>
</tr>
<tr>
<td>Potato P carlavirus</td>
<td>PCR using universal primers for carlavirus (Badge et al. 1996) AND TEM.</td>
<td>Infected indicator plants do not produce symptoms.</td>
</tr>
<tr>
<td>Potato rough dwarf carlavirus</td>
<td>PCR using universal primers for carlavirus (Badge et al. 1996) AND TEM.</td>
<td>Sap inoculation of indicator plants is unreliable.</td>
</tr>
<tr>
<td>Potato T trichovirus</td>
<td>Herbaceous indicators Ca, Cq AND ELISA AND TEM.</td>
<td></td>
</tr>
<tr>
<td>Potato U nepovirus</td>
<td>Herbaceous indicators Ca, Cq AND TEM.</td>
<td>Transmitted by sap with difficulty.</td>
</tr>
<tr>
<td>Potato V potyvirus</td>
<td>General potyvirus ELISA or PCR using universal potyvirus primers (Langeveld et al. 1991 or Pappu et al. 1993 or Gibbs &amp; Mackenzie 1997) AND TEM.</td>
<td></td>
</tr>
<tr>
<td>Virus (Virus Family)</td>
<td>Detection Method</td>
<td>Indicators</td>
</tr>
<tr>
<td>---------------------</td>
<td>------------------</td>
<td>------------</td>
</tr>
<tr>
<td>Potato Y potyvirus [strains not in NZ]</td>
<td>General potyvirus ELISA or PCR using universal potyvirus primers (Langeveld et al. 1991 or Pappu et al. 1993 or Gibbs &amp; Mackenzie 1997) AND herbaceous indicators Nb, No AND TEM.</td>
<td></td>
</tr>
<tr>
<td>Potato yellow dwarf nucleorhabdovirus</td>
<td>Herbaceous indicators Nc (4 plants) AND TEM.</td>
<td></td>
</tr>
<tr>
<td>Potato yellow mosaic begomovirus</td>
<td>Herbaceous indicators Nb, Nt AND TEM.</td>
<td></td>
</tr>
<tr>
<td>Potato yellow vein crinivirus</td>
<td>PCR or hybridisation according to Salazar et al. 2000 AND TEM.</td>
<td>Crinivirus cannot be transmitted by sap inoculation.</td>
</tr>
<tr>
<td>Potato yellowing alfamovirus</td>
<td>ELISA AND TEM.</td>
<td>Transmission may be unreliable by sap inoculation.</td>
</tr>
<tr>
<td>Solanum apical leaf curling begomovirus</td>
<td>Growing season inspection in PEQ for symptom expression.</td>
<td>Cannot be transmitted by sap inoculation. Tentative species in begomovirus genus</td>
</tr>
<tr>
<td>Solanum yellows luteovirus</td>
<td>Growing season inspection in PEQ for symptom expression.</td>
<td></td>
</tr>
<tr>
<td>Southern potato latent ?carlavirus</td>
<td>Growing season inspection in PEQ for symptom expression.</td>
<td>Tentative member of carlavirus family.</td>
</tr>
<tr>
<td>Sowbane mosaic sobemovirus</td>
<td>Herbaceous indicators Cq, Ca AND TEM.</td>
<td></td>
</tr>
<tr>
<td>Tobacco necrosis necrovirus [strains not in New Zealand]</td>
<td>Herbaceous indicators Ca, Cq, Nc AND TEM.</td>
<td>Tobacco necrosis virus A Tobacco necrosis virus B</td>
</tr>
<tr>
<td>Tobacco rattle tobravirus [strains not in New Zealand]</td>
<td>PCR AND herbaceous indicators Ca, Nc AND TEM.</td>
<td>Serological detection is unreliable because of diversity in the particle proteins of different isolates.</td>
</tr>
<tr>
<td>Tobacco streak ilarvirus [strains not in New Zealand]</td>
<td>Herbaceous indicators Nt (4 plants) AND TEM.</td>
<td>Potato strain SB10 infects potato naturally.</td>
</tr>
<tr>
<td>Tomato black ring nepovirus</td>
<td>ELISA AND herbaceous indicators Ca, Cq, Nc AND TEM.</td>
<td>Considerable antigenic variation therefore use mixture of antibodies to the two main serotypes – potato bouquet and pseudo aucuba strains and the beet ringspot strain.</td>
</tr>
<tr>
<td>Tomato infectious chlorosis crinivirus</td>
<td>PCR using method of Li et al. (1998) AND TEM.</td>
<td>Cannot be transmitted by sap inoculation.</td>
</tr>
<tr>
<td>Tomato leaf curl begomovirus –New Delhi</td>
<td>Herbaceous indicators Nb (4 plants) AND TEM.</td>
<td>Potato leaf curl is a new disease in northern India caused by a strain of Tomato leaf curl new Delhi virus. A rare example of a sap-transmissible begomovirus</td>
</tr>
<tr>
<td>Tomato yellow leaf curl begomovirus</td>
<td>PCR using universal primers of Rojas et al. (1993) or Wyatt and Brown (1996) OR the universal ELISA for begomoviruses (Agdia) AND TEM.</td>
<td>Transmitted poorly by sap inoculation.</td>
</tr>
<tr>
<td>Tomato yellow mosaic begomovirus</td>
<td>PCR using universal primers of Rojas et al. (1993) or Wyatt and Brown (1996) OR the universal ELISA for begomoviruses (Agdia) AND herbaceous indicators Nb, Nt AND TEM.</td>
<td></td>
</tr>
<tr>
<td>Wild potato mosaic potyvirus</td>
<td>Herbaceous indicators Nc, No AND TEM.</td>
<td></td>
</tr>
</tbody>
</table>
### Phytoplasmas

<table>
<thead>
<tr>
<th>Phytoplasma Type</th>
<th>PCR Using the Universal Phytoplasma Primers fU5/rU3 AND R16F2n/R16R2 (Lorenz et al. 1995) AND R16F2n/R16R2 (Gundersen et al. 1996).</th>
</tr>
</thead>
<tbody>
<tr>
<td>Eggplant little leaf phytoplasma</td>
<td></td>
</tr>
<tr>
<td>Potato marginal flavescence</td>
<td></td>
</tr>
<tr>
<td>Potato phyllody phytoplasma</td>
<td></td>
</tr>
<tr>
<td>Potato purple-top roll phytoplasma</td>
<td></td>
</tr>
<tr>
<td>Potato purple-top wilt phytoplasma</td>
<td></td>
</tr>
<tr>
<td>Potato round leaf phytoplasma</td>
<td></td>
</tr>
<tr>
<td>Potato stolbur phytoplasma</td>
<td></td>
</tr>
<tr>
<td>Potato witches' broom phytoplasma</td>
<td></td>
</tr>
<tr>
<td>Saq'O disease</td>
<td>Growing season inspection in PEQ for symptom expression.</td>
</tr>
</tbody>
</table>

### Viroids, viruses and phytoplasmas infecting potato experimentally

Note: * Pathogens that are currently only known to infect *Solanum tuberosum* experimentally. Tests that would detect these pathogens are already being conducted elsewhere in this schedule.

<table>
<thead>
<tr>
<th>Viroid / Virus</th>
<th>Tests that Would Detect These Pathogens Are Already Being Conducted Elsewhere in This Schedule</th>
</tr>
</thead>
<tbody>
<tr>
<td>Columnnea latent viroid*</td>
<td>No evidence that this viroid infects potato naturally.</td>
</tr>
<tr>
<td>Tomato chlorotic dwarf viroid*</td>
<td>Tests that would detect this viroid are already being conducted elsewhere in this schedule e.g. the herbaceous indicator Nd.</td>
</tr>
<tr>
<td>Tomato planta macho viroid*</td>
<td>No evidence that this viroid infects potato naturally (Galindo et al. 1982).</td>
</tr>
<tr>
<td>Virus Name</td>
<td>Description</td>
</tr>
<tr>
<td>------------------------------------</td>
<td>-----------------------------------------------------------------------------</td>
</tr>
<tr>
<td>Abutilon mosaic begomovirus*</td>
<td>Tests that would detect this virus are already being conducted elsewhere in this schedule e.g. the universal PCR or ELISA tests for begomoviruses.</td>
</tr>
<tr>
<td>Arracacha A nepovirus*</td>
<td>Tests that would detect this virus are already being conducted elsewhere in this schedule, e.g. the herbaceous indicators Cq and Nc.</td>
</tr>
<tr>
<td>Asparagus 3 potexvirus*</td>
<td>Tests that would detect this virus are already being conducted elsewhere in this schedule, e.g. the indicator Cq and Nc.</td>
</tr>
<tr>
<td>Cassava green mottle nepovirus*</td>
<td>Tests that would detect this virus are already being conducted elsewhere in this schedule, e.g. the herbaceous indicators Cq and Nc.</td>
</tr>
<tr>
<td>Cassia mild mosaic carlavirus*</td>
<td>Tests that would detect this virus are already being conducted elsewhere in this schedule, e.g. the universal PCR for carlavirus.</td>
</tr>
<tr>
<td>Eggplant mosaic tymovirus*</td>
<td>Tests that would detect this virus are already being conducted elsewhere in this schedule, e.g. the indicators Cq and Nc.</td>
</tr>
<tr>
<td>Henbane mosaic potyvirus*</td>
<td>Tests that would detect this virus are already being conducted elsewhere in this schedule, e.g. the general potyvirus ELISA or PCR using universal potyvirus primers (Langeveld et al. 1991 or Pappu et al. 1993 or Gibbs &amp; Mackenzie 1997).</td>
</tr>
<tr>
<td>Melilotus mosaic potyvirus*</td>
<td>Tests that would detect this virus are already being conducted elsewhere in this schedule, e.g. the indicator Cq.</td>
</tr>
<tr>
<td>Pelargonium line pattern carmovirus*</td>
<td>Tests that would detect this virus are already being conducted elsewhere in this schedule, e.g. the indicators Cq and Ca.</td>
</tr>
<tr>
<td>Pepino mosaic potexvirus*</td>
<td>Tests that would detect this virus are already being conducted elsewhere in this schedule, e.g. the indicator Nc.</td>
</tr>
<tr>
<td>Pepper veinal mottle potyvirus*</td>
<td>Tests that would detect this virus are already being conducted elsewhere in this schedule, e.g. the indicators Nc and Ca and the general potyvirus PCR/ELISA.</td>
</tr>
<tr>
<td>Tobacco etch potyvirus*</td>
<td>Tests that would detect this virus are already being conducted elsewhere in this schedule, e.g. the indicators Cq and Ca.</td>
</tr>
<tr>
<td>Tobacco necrotic dwarf luteovirus*</td>
<td>No appropriate test available.</td>
</tr>
<tr>
<td>Tobacco stunt varicosavirus*</td>
<td>Tests that would detect this virus are already being conducted elsewhere in this schedule, e.g. the indicator Ca.</td>
</tr>
<tr>
<td>Tomato bushy stunt tombusvirus*</td>
<td>Tests that would detect this virus are already being conducted elsewhere in this schedule, e.g. the indicators Cq and Nc.</td>
</tr>
<tr>
<td>Virus Name</td>
<td>Tests that would detect this virus are already being conducted elsewhere in this schedule, e.g. the universal PCR or ELISA for begomovirus.</td>
</tr>
<tr>
<td>------------------------------------------------</td>
<td>-----------------------------------------------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>Tomato leaf curl begomovirus - Australia*</td>
<td>Tests that would detect this virus are already being conducted elsewhere in this schedule, e.g. the universal PCR or ELISA for begomovirus.</td>
</tr>
<tr>
<td>Tomato top necrosis nepovirus*</td>
<td>Tests that would detect this virus are already being conducted elsewhere in this schedule, e.g. the indicator Cq.</td>
</tr>
<tr>
<td>Tomato yellow vein streak begomovirus*</td>
<td>Tests that would detect this virus are already being conducted elsewhere in this schedule, e.g. the universal PCR or ELISA for begomovirus.</td>
</tr>
<tr>
<td>Peanut witches' broom*</td>
<td>Tests that would detect this phytoplasma are already being conducted elsewhere in this schedule, e.g. the universal PCR for phytoplasma.</td>
</tr>
</tbody>
</table>
Notes:
1. Transmission electron microscopy (TEM) – each plant must be observed under the TEM for virus particles.
2. Indicator hosts: *Chenopodium amaranticolour* (Ca), *C. quinoa* (Cq), *Nicotiana benthamiana* (Nb), *N. clevelandii* (Nc), *N. debneyii* (Nd), *N. occidentalis* P1 (No) and *N. tabacum* (cv White Burley) (Nt).
3. Enzyme linked immunosorbent assay (ELISA).
4. Polymerase chain reaction (PCR).
5. Polyacrylamide gel electrophoresis (PAGE).
6. With prior notification, MAF will accept other internationally recognised testing methods.
7. For bioassay and ELISA, plants must be sampled from at least two positions on every stem including a young, fully expanded leaflet at the top of each stem and an older leaflet from a midway position (Jeffries, 1998).
8. For the PSTVd PCR young actively growing leaf tissue must be used.
9. Indicator plants must be grown at an appropriate temperature prior to inoculation.
10. Indicator plants must be shaded for 12-24 hrs prior to inoculation.
11. Maintain post-inoculated indicator species under appropriate glasshouse conditions for at least 4 weeks.
12. Inspect potato plants at least once per week for signs of pest and disease.
13. Inspect inoculated herbaceous indicator plants at least twice per week for symptoms of virus infection.
14. The unit for testing is an individual plantlet. Each single plantlet must be labelled individually and tested separately. Progeny derived from these units after arrival can be treated as equivalent.
15. PCR, hybridisation tests and ELISA need to be validated using positive controls/reference material prior to use in quarantine testing.
16. At least two plants of each indicator species stated must be used in mechanical inoculation tests, unless otherwise stated.
17. Plantlets in growth media must be de-flasked and grown in quarantine for virus disease testing.
18. *Clavibacter michiganensis* subsp. *sepedonicus* grows well in microplants on Murashige and Skoog media. However there are usually no symptoms in this phase even though there could be high populations of bacteria, after potting up symptoms develop quickly (Dr D. Stead, Central Science Laboratory (York, UK), pers. comm. 2002).
19. After plantlets are deflasked they must be grown in sterile potting mix.
20. Testing must be carried out on plants while they are still in active growth and before tubers form.
21. For the general potyvirus ELISA, it is important to check that the potyvirus to be tested for is detected by the antisera being used. Agdia state that their general potyvirus ELISA will detect all aphid-transmitted potyviruses.
22. *Erwinia carotovora* ssp. *carotovora*, *E. carotovora* ssp. *atroseptica* and *E. chrysanthemi* have recently been classified in the genus *Pectobacterium* as *P. ssp. carotovorum*, *P. carotovorum* ssp. *atrosepticum* and *P. chrysanthemi* (Hauben et al., 1998; cited in Perombelon 2002).
23. Only plants grown in tissue culture will be released from quarantine.
24. Positive and negative controls must be used in ELISA.
25. Positive and negative controls (including a blank water control) must be used in PCR. Ideally internal positive controls and a negative plant control must also be used.
References


### Appendix 1. Quarantine Tests for Potato Viruses and Viroid

(★ = accepted test, sp = specific ELISA, u = universal primers or ELISA)

Grey background = not easily mechanically transmissible.

<table>
<thead>
<tr>
<th>Virus</th>
<th>PCR</th>
<th>ELISA</th>
<th>TEM</th>
<th>Ca</th>
<th>Cq</th>
<th>Nb</th>
<th>Nc</th>
<th>Nd</th>
<th>No</th>
<th>Nt</th>
</tr>
</thead>
<tbody>
<tr>
<td>Arracacha B nepovirus</td>
<td>★ sp</td>
<td>★</td>
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<td></td>
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<tr>
<td>Beet curly top curtovirus</td>
<td>★ u</td>
<td>★</td>
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<tr>
<td>Eggplant mottled dwarf nucleorhabdovirus</td>
<td>★</td>
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<tr>
<td>Potato Andean latent tymovirus</td>
<td>★ sp</td>
<td>★</td>
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<tr>
<td>Potato Andean mottle comovirus</td>
<td>★ sp</td>
<td>★</td>
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<td></td>
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<tr>
<td>Potato black ringspot nepovirus</td>
<td>★ sp</td>
<td>★</td>
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<tr>
<td>Potato deforming mosaic begomovirus</td>
<td>★ u</td>
<td>★ u</td>
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<tr>
<td>Potato latent carlavirus</td>
<td>★ u</td>
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<tr>
<td>Potato mop top furovirus</td>
<td>★ sp</td>
<td>★</td>
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<td>★</td>
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<tr>
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<td>★ u</td>
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<tr>
<td>Potato rough dwarf carlavirus</td>
<td>★ u</td>
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<tr>
<td>Potato spindle tuber viroid [transient]</td>
<td>★ sp or PAGE or hybridisation</td>
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<tr>
<td>Potato T trichovirus</td>
<td>★ sp</td>
<td>★</td>
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<tr>
<td>Potato U nepovirus</td>
<td>★</td>
<td>★</td>
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<tr>
<td>Potato Y potyvirus</td>
<td>★ u</td>
<td>★ u</td>
<td>★</td>
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<tr>
<td>Potato yellow dwarf [strains not in New Zealand]</td>
<td>★ u</td>
<td>★ u</td>
<td>★</td>
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<tr>
<td>Potato yellow dwarf nucleorhabdovirus</td>
<td>★</td>
<td>★</td>
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<tr>
<td>Potato yellow mosaic begomovirus</td>
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<tr>
<td>Potato yellow vein crinivirus</td>
<td>★ sp or hybridisation</td>
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<tr>
<td>Potato yellowing alfamovirus</td>
<td>★ sp</td>
<td>★</td>
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</tr>
<tr>
<td>Sowbane mosaic sobemovirus</td>
<td>★</td>
<td>★</td>
<td>★</td>
<td>★</td>
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<td></td>
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<td></td>
</tr>
<tr>
<td>Tobacco necrosis necrovirus [strains not in New Zealand]</td>
<td>★</td>
<td>★</td>
<td>★</td>
<td>★</td>
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</tr>
<tr>
<td>Tobacco rattle tobavirus [strains not in New Zealand]</td>
<td>★ sp</td>
<td>★</td>
<td>★</td>
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<td>Tobacco streak ilarvirus [strains not in New Zealand]</td>
<td>★</td>
<td>★</td>
<td>★</td>
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<tr>
<td>Tomato black ring nepovirus</td>
<td>★ sp</td>
<td>★</td>
<td>★</td>
<td>★</td>
<td>★</td>
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<tr>
<td>Tomato infectious chlorosis crinivirus</td>
<td>★ sp</td>
<td>★</td>
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<tr>
<td>Tomato leaf curl begomovirus -New Delhi</td>
<td>★</td>
<td>★</td>
<td>★</td>
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<tr>
<td>Tomato yellow leaf curl begomovirus</td>
<td>★ u</td>
<td>★ u</td>
<td>★</td>
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<tr>
<td>Tomato yellow mosaic begomovirus</td>
<td>★ u</td>
<td>★ u</td>
<td>★</td>
<td>★</td>
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<tr>
<td>Wild potato mosaic potyvirus</td>
<td>★</td>
<td>★</td>
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</table>
DECLARATION FOR GENETICALLY MODIFIED ORGANISMS

I………………………………………………………. declare, pursuant to Section 123 of the New Zealand Hazardous Substances and New Organisms Act 1996, that the Solanum tuberosum plants in tissue culture being imported are not genetically modified organisms.

**genetically modified organism means, unless expressly provided otherwise by regulations, any organism in which any of the genes or any other genetic material have been modified by in vitro techniques or are inherited or otherwise derived, through any number of replications, from any genes or other genetic material which has been modified by in vitro techniques** (as defined by the New Zealand HSNO Act 1996).

Signed by (print name):

Company Name and Details (if appropriate):

Signature:

Date:

**Warning**: Any person knowingly importing a genetically modified organism without proper authorisation may, on conviction, be sentenced to a term of imprisonment and/or a fine not exceeding $500,000.00. The making of this declaration does not provide an exemption from any provisions of the Hazardous Substances and New Organisms Act 1996.
**Solidago**

**Note:** The entry conditions in this schedule only apply to species in the Plants Biosecurity Index listed under Import Specifications for Nursery Stock as “see 155.02.06 under Solidago”, and are additional to those specified in sections 1, 2 and 3 of the import health standard.

**GENERAL CONDITIONS:**

**Countries:** Australia, Austria, Belgium, Canada, Denmark, Finland, France, Germany, Greece, Hungary, Ireland, Italy, Luxembourg, The Netherlands, Norway, Portugal, Spain, Sweden, Switzerland, United Kingdom.

**Quarantine Pests:** Aster yellows phytoplasma, Uredinales; *Xylella fastidiosa*

**Entry Conditions:** Basic; with variations and additional conditions as specified below:

A. **For Whole Plants:**
   - **PEQ:** Level 2
   - **Minimum Period:** 3 months
   - **Additional Declarations:**
     1. "Aster yellows phytoplasma is not known to occur in ___ (the country or state where the plants were grown) ___."
     2. "The plants have been sourced from a “Pest free area”, free from *Xylella fastidiosa*".

B. **For Tissue Cultures:**
   As for **Standard Entry Conditions for Tissue Cultures** - see Section 2.2.2.
   - **PLUS:**
     - **Additional Declaration:** "The cultures have been derived from parent stock tested or inspected and found free of Aster yellows phytoplasma".
**Syringa**

**Note:** The entry conditions in this schedule only apply to species in the Plants Biosecurity Index listed under Import Specifications for Nursery Stock as “see 155.02.06 under *Syringa*”, and are additional to those specified in sections 1, 2 and 3 of the import health standard.

**GENERAL CONDITIONS:**

**Countries:** All

**Quarantine Pests:** Virus & virus-like diseases

**Entry Conditions:** Basic; with variations and additional conditions as specified below:

**A. For Whole Plants:**

- **PEQ:** Level 2
- **Minimum Period:** 3 months

**Additional Declaration:**

“The plants were inspected during the growing season and no symptoms of viruses or virus-like diseases were detected”.

**B. For Tissue Cultures:**

As for **Standard Entry Conditions for Tissue Cultures** - see Section 2.2.2;

**PLUS**

**Additional Declaration:**

“The cultures have been derived from parent stock tested and found free of viruses or virus-like diseases”.
Tillandsia

Note: The entry conditions in this schedule only apply to species in the Plants Biosecurity Index listed under Import Specifications for Nursery Stock as “see 155.02.06 under Tillandsia”, and are additional to those specified in sections 1, 2 and 3 of the import health standard.

GENERAL CONDITIONS:

Countries: All

Entry Conditions: Basic; with variations and additional conditions as specified below:

A. For Cuttings and Whole Plants:
   PEQ: Level 2
   Minimum Period: 3 months

B. For Plants in Tissue Culture:

   As for Standard Entry Conditions for Tissue Cultures - see Section 2.2.2.
Tricyrtis

Note: The entry conditions in this schedule only apply to species in the Plants Biosecurity Index listed under Import Specifications for Nursery Stock as “see 155.02.06 under Tricyrtis”, and are additional to those specified in sections 1, 2 and 3 of the import health standard.

GENERAL CONDITIONS:

Countries: All

Quarantine Pests: Tetranychus kanzawai

Entry Conditions: Basic; with variations and additional conditions as specified below:

A. For Whole Plants:
   PEQ: Level 2
   Minimum Period: 3 months
   Additional Declaration:
   "The plants have been dipped prior to export in dicofol at the rate of 0.7g a.i. per litre of water".

B. For Tissue Cultures:
   As for Standard Entry Conditions for Tissue Cultures - see Section 2.2.2
Tritonia

Note: The entry conditions in this schedule only apply to species in the Plants Biosecurity Index listed under Import Specifications for Nursery Stock as “see 155.02.06 under Tritonia”, and are additional to those specified in sections 1, 2 and 3 of the import health standard.

GENERAL CONDITIONS:

Countries: All

Quarantine Pests: Puccinia gladioli

Entry Conditions: Basic; with variations and additional conditions as specified below:

A. For Whole Plants:
PEQ: Level 2
Minimum Period: 6 months
Additional Declarations:
"Puccinia gladioli is not known to occur in _____ (the country or state where the plants were grown) ______".
OR
"The plants were inspected during the growing season and Puccinia gladioli was not detected".

B. For Dormant Bulbs (Corms) from Australia, Austria, Belgium, Canada, Denmark, Finland, France, Germany, Greece, Ireland, Israel, Italy, Luxembourg, The Netherlands, Portugal, South Africa, Spain, Sweden, United Kingdom, USA:

OPTION 1:
No import permit is required.
PEQ: None
Cleanliness: Bulbs (corms) must be free of leafy coverings.
Additional Declaration(s):
“In addition to inspection of dormant bulbs prior to shipment, the crop from which the bulbs were derived was inspected during the growing season according to appropriate procedures, and considered free of quarantine pests, and practically free from other injurious pests.” An import permit is required.

OPTION 2:
PEQ: Level 1
Minimum Period: 3 months
Cleanliness: Bulbs (corms) must be free of leafy coverings.
C. For Dormant Bulbs from Countries other than Australia, Austria, Belgium, Canada, Denmark, Finland, France, Germany, Greece, Ireland, Israel, Italy, Luxembourg, The Netherlands, Portugal, South Africa, Spain, Sweden, United Kingdom, USA:

OPTION 1:
PEQ: Level 1
Minimum Period: 3 months
Cleanliness: Bulbs (corms) must be free of leafy coverings.
Additional Declaration(s):
"The dormant bulbs in this consignment have been:
- derived from a crop which was inspected during the growing season according to appropriate procedures and found to be free of regulated pests.
AND
- treated for regulated insects as described in section 2.2.1.7 of the basic conditions within 7 days prior to freezing, cold-storage or shipment."

OPTION 2:
PEQ: Level 2
Minimum Period: 3 months
Cleanliness: Bulbs (corms) must be free of leafy coverings.

D. For Tissue Cultures:
As for Standard Entry Conditions for Tissue Cultures - see Section 2.2.2.
Tulipa

Note: The entry conditions in this schedule only apply to species in the Plants Biosecurity Index listed under Import Specifications for Nursery Stock as “see 155.02.06 under Tulipa”, and are additional to those specified in sections 1, 2 and 3 of the import health standard.

1. Type of Tulipa nursery stock approved for entry into New Zealand
   Dormant bulbs
   Plants in tissue culture

2. Pests of Tulipa
   Refer to the pest list.

3. Entry conditions for:
   3.1 Tulipa dormant bulbs from any country
      (i) Documentation
      Phytosanitary certificate: a completed phytosanitary certificate, issued by the national plant protection organisation (NPPO) of the exporting country, is required.
      Import permit: an import permit is required.

      (ii) Phytosanitary requirements
      Before a phytosanitary certificate is issued, the exporting country NPPO must be satisfied that the following activities required by the New Zealand Ministry of Agriculture and Forestry (MAF) have been undertaken.

      The Tulipa dormant bulbs have been:
      - inspected in accordance with appropriate official procedures and found to be free of any visually detectable regulated pests including Fusarium oxysporum f. sp. tulipae OR treated for regulated fungi as described in section 2.2.1.7 of the basic conditions within 7 days prior to freezing, cold-storage or shipment.
      AND
      - sourced from a “Pest free area”, “Pest free place of production” or “Pest free production site”, free from regulated nematodes and fungi (except Fusarium oxysporum f. sp. tulipae) OR treated for regulated nematodes and fungi as described in section 2.2.1.7 of the basic conditions within 7 days prior to freezing, cold-storage or shipment.
      AND
      - sourced from a “Pest free area”, “Pest free place of production” or “Pest free production site”, free from regulated bacteria and viruses.
      AND
      - treated for regulated insects and mites as described in section 2.2.1.7 of the basic conditions within 7 days prior to freezing, cold-storage or shipment.
      AND
      - held in a manner to ensure that infestation/reinfestation does not occur following certification.

      (iii) Additional declarations to the phytosanitary certificate
      If satisfied that the pre-shipment activities have been undertaken, the exporting country NPPO must confirm this by recording the treatments applied in the “Disinfestation and/or
Disinfection Treatment” section, and by providing the following additional declaration to the phytosanitary certificate:

"The Tulipa dormant bulbs in this consignment have been:
- inspected in accordance with appropriate official procedures and found to be free of any visually detectable regulated pests including Fusarium oxysporum f. sp. tulipae.
AND
- sourced from a “Pest free area”, “Pest free place of production” or “Pest free production site”, free from regulated nematodes and fungi [if applicable].
AND
- sourced from a “Pest free area”, “Pest free place of production” or “Pest free production site”, free from regulated bacteria and viruses."

(iv) Post-entry quarantine

PEQ: Level 1
Quarantine Period: This is the time required to complete inspections and/or testing to detect regulated pests. Three months is an indicative minimum quarantine period. The quarantine period may be extended if material is slow growing, pests are detected, or treatments/testing are required. Cut flowers may receive biosecurity clearance while the imported plants remain in post-entry quarantine following inspection of the parent plants and with prior approval from a MAF Inspector.

3.2 Tulipa dormant bulbs from the Netherlands

(i) Documentation
Phytosanitary certificate: a completed phytosanitary certificate, issued by the national plant protection organisation (NPPO) of the exporting country, is required.
Import permit: no import permit is required.

(ii) Phytosanitary requirements
Before a phytosanitary certificate is issued, the exporting country NPPO must be satisfied that the following activities required by the New Zealand Ministry of Agriculture and Forestry (MAF) have been undertaken.

The Tulipa dormant bulbs have been:
- produced in accordance with the requirements of the Bloembollenkeuringsdienst (BKD) Class 1 bulb certification scheme.
AND
- inspected in accordance with appropriate official procedures and found to be free of any visually detectable regulated pests.
AND
- sourced from a “Pest free area”, “Pest free place of production” or “Pest free production site”, free from regulated nematodes and fungi OR treated for regulated nematodes and fungi as described in section 2.2.1.7 of the basic conditions within 7 days prior to freezing, cold-storage or shipment.
AND
- sourced from a “Pest free area”, “Pest free place of production” or “Pest free production site”, free from regulated bacteria and viruses.
AND
- treated for regulated insects and mites as described in section 2.2.1.7 of the basic conditions within 7 days prior to freezing, cold-storage or shipment.
AND
- held in a manner to ensure that infestation/reinfestation does not occur following certification.

(iii) *Additional declarations to the phytosanitary certificate*
If satisfied that the pre-shipment activities have been undertaken, the exporting country NPPO must confirm this by recording the treatments applied in the “Disinfestation and/or Disinfection Treatment” section, and by providing the following additional declaration to the phytosanitary certificate:

"The *Tulipa* dormant bulbs in this consignment have been:
- produced in accordance with the requirements of the BKD Class 1 bulb certification scheme.
AND
- sourced from a “Pest free area”, “Pest free place of production” or “Pest free production site”, free from regulated nematodes and fungi [if applicable].
AND
- sourced from a “Pest free area”, “Pest free place of production” or “Pest free production site”, free from regulated bacteria and viruses."

(iv) *Post-entry quarantine*
Post-entry quarantine is not required provided that the above measures have been completed.

3.3 *Tulipa* plants in tissue culture from any country

(i) *Documentation*

**Phytosanitary certificate:** a completed phytosanitary certificate, issued by the national plant protection organisation (NPPO) of the exporting country, is required.

**Import permit:** no import permit is required.

(ii) *Special tissue culture media requirements*
The tissue culture media must not contain charcoal.

(iii) *Phytosanitary requirements*
Before a phytosanitary certificate is issued, the exporting country NPPO must be satisfied that the following activities required by the New Zealand Ministry of Agriculture and Forestry (MAF) have been undertaken.
The *Tulipa* plants in tissue culture have been:
- inspected in accordance with appropriate official procedures and found to be free of any visually detectable regulated pests.
AND
- derived from parent stock inspected in accordance with appropriate official procedures and found to be free of any visually detectable regulated pests.
AND
- derived from parent stock tested using molecular/serological methods [choose ONE option] and found free of *Tobacco rattle virus*, *Tomato black ring virus* and *Tomato bushy stunt virus*.

(iv) *Additional declarations to the phytosanitary certificate*
If satisfied that the pre-shipment activities have been undertaken, the exporting country NPPO must confirm this by providing the following additional declaration to the phytosanitary certificate:

"The *Tulipa* plants in tissue culture have been derived from parent stock:
- inspected in accordance with appropriate official procedures and found to be free of any visually detectable regulated pests
AND
- tested using molecular/serological methods [choose ONE option] and found free of *Tobacco rattle virus, Tomato black ring virus* and *Tomato bushy stunt virus.*"

(iv) *Post-entry quarantine*
Post-entry quarantine is not required provided that the above measures have been completed overseas. Alternatively the inspection and testing may be completed in post-entry quarantine upon arrival in New Zealand according to the following conditions:

**Phytosanitary certificate:** a completed phytosanitary certificate, issued by the national plant protection organisation (NPPO) of the exporting country, is required.

**Import permit:** an import permit is required.

**PEQ:** Level 3

**Quarantine Period:** This is the time required to complete inspections and/or testing to detect regulated pests. Three months is an indicative minimum quarantine period. The quarantine period may be extended if material is slow growing, pests are detected, or treatments/testing are required.
Pest List for *Tulipa*

REGULATED PESTS (actionable)

**Insect**
**Insecta**
**Diptera**
*Anthomyiidae*
  *Delia antiqua* 
  onion maggot

**Homoptera**
*Aphididae*
  *Rhopalosiphoninus staphyleae tulipaellus* 
  tulip leaf aphid

**Orthoptera**
*Gryllotalpidae*
  *Gryllotalpa gryllotalpa* 
  mole cricket

**Thysanoptera**
*Thripidae*
  *Taeniothrips eucharii* 
  oriental thrips

**Mite**
**Arachnida**
**Acarina**
*Eriophyidae*
  *Aceria tulipae* [vector] 
  wheat curl mite

**Nematode**
**Adenophorea**
**Dorylaimida**
*Longidoridae*
  *Xiphinema coxi* 
  dagger nematode

**Trichodorididae**
  *Paratrichodorus pachydermus* [vector] 
  stubby root nematode

  *Paratrichodorus teres* 
  stubby root nematode

  *Trichodorus similis* 
  stubby root nematode

**Secernentea**
**Tylenchida**
*Tylenchidae*
  *Ditylenchus dipsaci* [strains not in New Zealand] 
  stem and bulb nematode

**Fungus**
**Ascomycota**
**Leotiales**
*Sclerotiniaceae*
  *Sclerotinia bulborum* 
  black slime

  *Sclerotinia galanthina* 
  bulb rot

**Basidiomycota: Ustomycetes**
**Ustilaginales**
*Ustilaginaceae*
  *Ustilago tulipae* 
  smut

**mitosporic fungi (Agonomycetes)**
**Agonomycetales**
*unknown Agonomycetales*
  *Rhizoctonia tuliparum* 
  basal rot

  *Sclerotium pirciosum* 
  smouldering

  *Sclerotium wakkeri* 
  blackleg
mitosporic fungi (Hyphomycetes)
  Tuberculariales
  Tuberculariaceae
    Fusarium oxysporum f. sp. tulipae  fusarium bulb rot

Bacterium
  Corynebacteriaceae
    Curtobacterium flaccumfaciens pv. oortii  yellow pock

Virus
    Cymbidium ringspot virus  -
    Tobacco rattle virus [strains not in New Zealand]  -
    Tomato black ring virus  -
    Tomato bushy stunt virus  -
    Tomato ringspot virus [strains not in New Zealand]  -
    Tulip grey virus (syn. Tulip severe mosaic virus)  -
    Tulip halo necrosis virus  -
    Tulip mild mosaic virus  -
    Tulip mild mottle mosaic virus  -
    Tulip virus X  -
    Wa tulip virus  -
NON-REGULATED PESTS (non-actionable)

Insect
Insecta
  Diptera
    Syrphidae
      *Merodon equestris* narcissus bulb fly
  Homoptera
    Aphididae
      *[Aulacorthum circumflexum* mottled arum aphid
      *Dysaphis tulipae* tulip aphid
      *Rhopalosiphoninus latysiphon* bulb and potato aphid
      *Rhopalosiphoninus staphyleae* hop aphid

Mite
Arachnida
  Acaridae
    *Rhizoglyphus echinopus* bulb mite
    *Rhizoglyphus robini* bulb mite
  Eriophyidae
    *Aceria tulipae* wheat curl mite

Nematode
Adenophorea
  Dorylaimida
    Longidoridae
      *Longidorus elongatus* needle nematode
      *Xiphinema americanum* American dagger nematode
    Trichodoridae
      *Paratrichodorus pachydermus* stubby root nematode
  Secernentea
    Tylenchida
      Aphelenchoideidae
        *Aphelenchoides subtenuis* narcissus bulb and leaf nematode
      Dolichodoridae
        *Tylenchorynchus dubius* -
      Tylenchidae
        *Ditylenchus destructor* potato rot nematode
        *Ditylenchus dipsaci* stem and bulb nematode

Fungus
Ascomycota
  Hypocreales
    Gibberella avenacea (anamorph *Fusarium avenaceum*) fusarium stem canker

Leotiales
  Sclerotiniaceae
    *Botryotinia fuckeliana* (anamorph *Botrytis cinerea*) grey mould
    *Mucor circinelloides* dry rot
    *Sclerotinia minor* sclerotinia rot
    *Sclerotinia sclerotiorum* cottony rot

Phyllachorales
  Phyllachoraceae
    *Glomerella cingulata* (anamorph *Colletotrichum gloeosporioides*) anthracnose
Basidiomycota: Basidiomycetes
Ceratobasidiales
  Ceratobasidiaceae
  Thanatephorus cucumeris (anamorph Rhizoctonia solani) rhizoctonia rot

Stereales
  Atheliaceae
    Athelia rolfsii (anamorph Sclerotium rolfsii) Rolf's disease

Oomycota
Pythiales
  Pythiaceae
    Phytophthora cactorum phytophthora crown and root rot
    Phytophthora cryptogea pink rot
    Phytophthora erythroseptica pink rot
    Pythium ultimum leak

Oomycota
Pythiales
  Pythiaceae
    Phytophthora cactorum phytophthora crown and root rot
    Phytophthora cryptogea pink rot
    Phytophthora erythroseptica pink rot
    Pythium ultimum leak

Oomycota
Stereales
  Atheliaceae
    Athelia rolfsii (anamorph Sclerotium rolfsii) Rolf's disease

Oomycota
Pythiales
  Pythiaceae
    Phytophthora cactorum phytophthora crown and root rot
    Phytophthora cryptogea pink rot
    Phytophthora erythroseptica pink rot
    Pythium ultimum leak

Oomycota
Pythiales
  Pythiaceae
    Phytophthora cactorum phytophthora crown and root rot
    Phytophthora cryptogea pink rot
    Phytophthora erythroseptica pink rot
    Pythium ultimum leak

Bacterium
  Enterobacteriaceae
    Erwinia carotovora subsp. carotovora bacterial soft rot
  Pseudomonadaceae
    Burkholderia andropogonis leaf spot
    Burkholderia gladioli pv. allicola bacterial soft rot

Virus
  Arabis mosaic virus -
  Bean yellow mosaic virus -
  Cucumber mosaic virus -
  Lily symptomless virus -
  Strawberry latent ringspot virus -
  Tobacco mosaic virus -
  Tobacco necrosis virus -
  Tobacco rattle virus [Paeonia and Narcissus infecting strains] -
  Tobacco ringspot virus -
  Tomato ringspot virus [Grape yellow vein strain] -
  Tulip breaking virus (syn. Tulip mosaic virus) -
  Turnip mosaic virus -
Note: The entry conditions in this schedule only apply to species in the Plants Biosecurity Index listed under Import Specifications for Nursery Stock as “see 155.02.06 under Ulmus”, and are additional to those specified in sections 1, 2 and 3 of the import health standard.

**GENERAL CONDITIONS:**

**Countries:** All

**Quarantine Pests:** Elm mosaic virus, Elm phloem necrosis; *Xylella fastidiosa*

**Entry Conditions:** Basic; with variations and additional conditions as specified below:

**For Whole Plants and Tissue Cultures:**

- **PEQ:** Level 3
- **Minimum Period:** 3 months
**Vaccinium**

**Note:** The entry conditions in this schedule only apply to species in the Plants Biosecurity Index listed under Import Specifications for Nursery Stock as “see 155.02.06 under *Vaccinium*”, and are additional to those specified in sections 1, 2 and 3 of the import health standard.

These conditions do not apply to *Vaccinium macrocarpon*.

1. **Type of Vaccinium [excluding Vaccinium macrocarpon] nursery stock approved for entry into New Zealand**
   Cuttings (dormant); Plants in tissue culture

2. **Pests of Vaccinium**
   Refer to the pest list.

3. **Entry conditions for:**

   3.1 **Vaccinium cuttings and tissue culture from offshore MAF-accredited facilities in any country**
   An offshore accredited facility is a facility that has been accredited to the MAF Standard PIT.OS.TRA.ACPQF to undertake phytosanitary activities. The operator of the accredited facility must also have an agreement with MAF on the phytosanitary measures to be undertaken for *Vaccinium*. Refer to the “*Vaccinium* Inspection, Testing and Treatment Requirements”.

   (i) **Documentation**
   - **Phytosanitary certificate:** a completed phytosanitary certificate issued by the NPPO of the exporting country must accompany all *Vaccinium* nursery stock exported to New Zealand.
   - **Import permit:** an import permit is required.

   (ii) **Phytosanitary requirements**
   Before a phytosanitary certificate is issued, the NPPO of the exporting country must be satisfied that the following activities required by MAF have been undertaken.

   The *Vaccinium* cuttings / plants in tissue culture [choose ONE option] have been:
   - inspected in accordance with appropriate official procedures and found to be free of any visually detectable regulated pests.
   AND
   - treated for regulated insects and mites as described in in section 2.2.1.6 of the basic conditions within 7 days prior to shipment [cuttings only].
   AND
   - held and tested for/classified free from specified regulated pests as required in the agreement between MAF and the [name of the MAF-accredited facility].
   AND
   - held in a manner to ensure that infestation/reinfestation does not occur following inspection and testing at the accredited facility, and certification.
(iii) **Additional declarations to the phytosanitary certificate**
If satisfied that the pre-shipment activities have been undertaken, the exporting country NPPO must confirm this by recording the treatments applied in the “Disinfestation and/or Disinfection Treatment” section and by providing the following additional declarations to the phytosanitary certificate:

"The *Vaccinium* cuttings / plants in tissue culture [choose ONE option] have been:
- held and tested for/classified free from specified regulated pests as required in the agreement between MAF and the [name of the MAF-accredited facility].
AND
- held in a manner to ensure infestation/reinfestation does not occur following inspection and testing at the accredited facility, and certification."

(iv) **Special tissue culture media requirements**
The tissue culture media must not contain charcoal.

(v) **Post-entry quarantine**
PEQ: All *Vaccinium* nursery stock must be imported under permit into post-entry quarantine in a level 2 quarantine facility accredited to MAF standard PBC-NZ-TRA-PQCON Specification for the registration of a plant quarantine or containment facility, and operator.

Quarantine Period and Inspection, Testing and Treatment Requirements: The nursery stock will be grown for a minimum period of 6 months in post-entry quarantine and will be inspected, treated and/or audit-tested for regulated pests, at the expense of the importer. Six months is an indicative minimum quarantine period and this period may be extended if material is slow growing, pests are detected, or treatments/testing are required.

3.2 *Vaccinium* cuttings and tissue culture from non-accredited facilities in any country

(i) **Documentation**

Phytosanitary certificate: a completed phytosanitary certificate issued by the NPPO of the exporting country must accompany all *Vaccinium* nursery stock exported to New Zealand.

Import permit: an import permit is required.

(ii) **Phytosanitary requirements**
Before a phytosanitary certificate is issued, the NPPO of the exporting country must be satisfied that the following activities required by MAF have been undertaken.

The *Vaccinium* cuttings / plants in tissue culture [choose ONE option] have been:
- inspected in accordance with appropriate official procedures and found to be free of any visually detectable regulated pests.
AND
- treated for regulated insects and mites as described in in section 2.2.1.6 of the basic conditions within 7 days prior to shipment [cuttings only].
AND
- held in a manner to ensure that infestation/reinfestation does not occur following certification.
(iii) **Additional declarations to the phytosanitary certificate**
If satisfied that the preshipment activities have been undertaken, the exporting country NPPO must confirm this by recording the treatments applied in the “Disinfestation and/or Disinfection Treatment” section. No additional declarations are required.

(iv) **Post-entry quarantine**
**PEQ:** All *Vaccinium* nursery stock must be imported under permit into post-entry quarantine in a level 3 quarantine facility accredited to MAF standard PBC-NZ-TRA-PQCON *Specification for the registration of a plant quarantine or containment facility, and operator.*

**Quarantine Period and Inspection, Testing and Treatment Requirements:** The nursery stock will be grown for a minimum period of either 9 (tissue culture) or 16 months (cuttings) in post-entry quarantine. During this time it will be inspected, treated and/or tested for regulated pests as specified in the “Inspection, Testing and Treatment Requirements for *Vaccinium*”, at the expense of the importer. These times are indicative minimum quarantine periods and may be extended if material is slow growing, pests are detected, or treatments/testing are required.
Pest List for Vaccinium

REGULATED PESTS (actionable)

Insect
Insecta
Coleoptera
Cerambycidae
Oberea myops azalea stem borer
Chrysomelidae
Altica sylvia blueberry flea beetle
Rhabdothrips piscipes cranberry rootworm
Curculionidae
Anthonomus musculus cranberry weevil
Conotrachelus nenuphar plum curculio
Pseudanthonomus validus currant fruit weevil
Scarabaeidae
Popilia japonica Japanese beetle
Diptera
Cecidomyiidae
Contarinia vaccinii blueberry tip midge
Tephritidae
Rhagoletis mendax blueberry maggot
Hemiptera
Coreidae
Veneza phyllopus leaf-footed bug
Homoptera
Aphididae
Illinoia azaleae azalea aphid
Illinoia borealis aphid
Illinoia pepperi blueberry aphid
Cicadellidae
Euscelis striatulus Blunt-nosed leafhopper
Scaphytopius magdalensis sharpnosed leafhopper
Hymenoptera
Tenthredinidae
Caliroa annulipes sawfly
Neopareophora itura gooseberry sawfly
Pristiphora idiota willow redgall sawfly
Pristiphora mollis
Lepidoptera
Arctiidae
Hyphantria cunea fall webworm
Geometridae
Itame ribearia currant spanworm
Noctuidae
Acronicta tritona acronicta caterpillar
Acteia fennica black army cutworm
Notodontidae
Datana major azalea caterpillar
Pyralidae
Acrobasis vaccinii cranberry fruitworm
Sphingidae
Paonias astylus huckleberry sphinx
Tortricidae
Archips rosanus rose leafroller
Argyrotaenia velutinana red-banded leafroller
Aroga trialbamaculella leafier
Cheimophila salicella European carnation tortrix
Choristoneura hebenstreitella tortricid
**Choristoneura rosaceana**  
oblique-banded leafroller

**Cydia packardi**  
cherry fruitworm

**Dichomeris vacciniella**  
leaffier

**Hendecaneura shawiana**  
blueberry tip borer

**Spilonota ocellana**  
eyespotted bud moth

**Thysanoptera**

**Thripidae**

*Catinathrips similis*  
thrips

*Catinathrips vaccinicolus*  
thrips

*Frankliniella bispinosa*  
flower thrips

*Frankliniella tritici*  
eastern flower thrips

*Frankliniella vaccinii*  
blueberry thrips

*Scirtothrips ruthveni*  
-

*Taeniothrips vaccinophilus*  
thrips

**Mite**

**Arachnida**

**Acarina**

**Eriophyidae**

*Acalitus vaccinii*  
blueberry bud mite

**Fungus**

**Ascomycota**

**Diaporthales**

**Valsaceae**

*Diaporthe vaccinii* (anamorph *Phomopsis vaccinii*)  
twig blight

**Dothideales**

**Botryosphaeriaceae**

*Botryosphaeria corticis*  
cane blight

*Botryosphaeria vaccinii* (anamorph *Phyllosticta elongata*)  
-

**Polystomellaceae**

*Dothidella vaccinicolus*  
twig canker

**Erysiphales**

**Erysiphaceae**

*Microsphaera penicillata*  
powdery mildew

*Microsphaera vaccinii*  
powdery mildew

**Hypocreales**

**Hypocreaceae**

*Calonectria ilicicola* (anamorph *Cylindrocladium crotalariae*)  
root and stem rot

**Leotiales**

**Leotiaceae**

*Godronia cassandrae* (anamorph *Fusicoccum putrefaciens*)  
foliage spot

*Godronia cassandrae f. sp. vaccinii*  
cane canker

**Sclerotiniaceae**

*Monilinia baccarum*  
mummy berry

*Monilinia fructigena* (anamorph *Monilia fructigena*)  
European brown rot

*Monilinia ledi*  
twig blight

*Monilinia megalospora*  
-

*Monilinia oxyccii*  
-

*Monilinia umula*  
brown rot

*Monilinia vaccini-corymbosi*  
brown rot

**Phyllachorales**

**Phyllachoraceae**

*Ophiodothella vaccinii*  
fly speck leaf spot

**Meliolales**

**Meliolaceae**

*Asteridiella exilis*  
black mildew

**Rhytismatales**

**Rhytismataceae**

*Lophodermium hypophyllum*  
-

*Lophodermium maculare*  
leaf spot

*Rhytisma vaccinii*  
tar leaf spot
Basidiomycota: Basidiomycetes
Agaricales
Tricholomataceae
Armillaria mellea (anamorph Rhizomorpha subcorticalis) armillaria root rot
Armillaria ostoyae armillaria root rot

Basidiomycota: Teliomycetes
Uredinales
Pucciniastriaceae
Pucciniastrium goeppertianum rust
Pucciniastrium vaccinii rust

Oomycota
Pythiales
Phytophthora ramorum sudden oak death disease

mitosporic fungi (Coelomycetes)
Sphaeropsidales
Sphaerioidaceae
Dothichiza caroliniana double leaf spot
Coniothyrium vaccincola brand canker
Phoma vaccinii stem blight
Piggotia vaccinii leaf spot
Septoria albopunctata septoria spot
Septoria vaccinii septoria spot
unknown Coelomycetes
unknown Coelomycetes
Gloeosporium minus leaf spot and stem canker
Leptothyrium conspicuum fly speck

mitosporic fungi (Hyphomycetes)
Hyphomycetales
Dematiaceae
Curvula inaequalis leaf mould
Moniliaceae
Gloeocercospora inconspicua leaf spot
Ramularia vaccinii leaf spot
unknown Hyphomycetes
unknown Hyphomycetes
Aureobasidium vaccinii twig and leaf blight

Bacterium
Rhizobiaceae
Agrobacterium rubi cane gall

Virus
Blueberry leaf mottle virus -
Blueberry red ringspot virus (syn. Cranberry ringspot virus) -
Blueberry scorch virus -
Blueberry shock virus -
Blueberry shoestring virus -
Peach rosette mosaic virus -
Tobacco streak virus [strains not in New Zealand] -
Tomato ringspot virus [strains not in New Zealand] -

Phytoplasma
Blueberry stunt phytoplasma -
Cranberry false blossom phytoplasma -
Vaccinium witches' broom phytoplasma -

Disease of unknown aetiology
Blueberry mosaic disease -

NON-REGULATED PESTS (non-actionable)

Insect
Insecta
Coleoptera

Chrysomelidae
- Eucolaspis brunnea

Curculionidae
- Asynonychus cervinus
- Ireninus compressus
- Listeroderes difficilis
- Oiotorhynchus sulcatus
- Phylctinus callosus

Scarabaeidae
- Costelytra zealandica
- Odontria xanthosticta

Diptera

Anthomyiidae
- Delia platura

Homoptera

Aphididae
- Aulacorthum circumflexum
- Aulacorthum solani
- Myzus ornatus

Cercopidae
- Philaenus spumarius

Coccidae
- Coccus hesperidum
- Coccus longulus

Diaspididae
- Aspidiotus nerii
- Hemiberlesia rapax

Hemiptera

Lepidoptera

Geometridae
- Declana floccosa

Psychidae
- Liothula omnivora

Tortricidae
- Ctenopseustis obliquana
- Epiphyas postvittana

Thysanoptera

Lepidoptera

Mite

Arachnida
Acarina
Eriophyidae
- Tarsenemus pallidus

Fungus

Ascomycota

Dothideales

Botryosphaeriaceae
- Botryosphaeria dothidea (anamorph Fusicoccum aesculi)
- Botryosphaeria obtusa (anamorph Sphaeropsis malorum)

Leptosphaeriaceae
- Leptosphaeria coniothyrium (anamorph Coniothyrium fuckelii)

Hypocreales

Hypocreaceae
- Calonectria kyotensis (anamorph Cylindrocladium scoparium)

Leotiales

Leotiaae
- Dischohainea oenothera (anamorph Hainesia lythri)
- Sclerotiniaceae
- Botryotinia fuckeliana (anamorph Botrytis cinerea)
Sclerotinia minor  
sclerotinia rot  
Sclerotinia sclerotiorum  
cottony rot  

**Phylloclorales**

**Phyllocloraceae**

*Glomerella cingulata* (anamorph *Colletotrichum gloeosporioides*)  
anthracnose  

**Basidiomycota: Ustomycetes**

**Exobasidiales**

*Exobasidium vaccinii*  
red leaf gall  

**Oomycota**

**Pythiales**

*Phytophthora cinnamomi*  
phytophthora crown and root rot  
*Pythium irregularare*  
pythium root and stem rot  

**Zygomycota: Zygomycetes**

**Mucorales**

*Rhizopus stolonifer*  
rhizopus soft rot  

**mitosporic fungi (Coelomycetes)**

**Sphaeropsidiales**

*Phoma huancayensis*  
phoma rot  

**unknown Coelomycetes**

**unknown Coelomycetes**

*Colletotrichum acutatum*  
anthracnose  
*Pestalottia vaccinii*  
leaf spot  
*Seimatosporium vaccinii*  
leaf spot  

**mitosporic fungi (Hyphomycetes)**

**Hyphomycetales**

**Dematiaceae**

*Alternaria alternata*  
black stalk rot  
*Alternaria tenuissima*  
alternaria mould  
*Curvularia trifolii*  
leaf spot  
*Thielaviopsis basicola*  
black root rot  

**Bacterium**

**Pseudomonadaceae**

*Burkholderia andropogonis*  
leaf spot  
*Pseudomonas viridiflava*  
leaf blight  

**Rhizobiaceae**

*Agrobacterium tumefaciens*  
crown gall  

**Virus**

*Tobacco ringspot virus*  
-  
*Tobacco streak virus [Black raspberry latent strain]*  
-  
*Tomato ringspot virus [Grape yellow vein strain]*  
-
Inspection, Testing and Treatment Requirements for *Vaccinium*

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<td><em>Blueberry stunt phytoplasma</em></td>
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<td><em>Vaccinium witches’ broom phytoplasma</em></td>
<td>PCR using the universal phytoplasma fU5/rU3 primers (Lorenz et al. 1995) AND R16F2n/R16R2 primers (Gundersen et al. 1996).</td>
</tr>
<tr>
<td><strong>Disease of unknown aetiology</strong></td>
<td>Growing season inspection in PEQ for disease symptom expression.</td>
</tr>
</tbody>
</table>

**Notes:**

1. The unit for testing is an individual plantlet or cutting. Each single plantlet and cutting must be labelled individually and tested separately.
2. Transmission electron microscopy (TEM); in the spring, leaves from grafted cuttings or tissue culture must be observed under the electron microscope for virus particles.
3. Herbaceous indicator hosts: *Chenopodium quinoa* (Cq), *Nicotiana clevelandii* (Nc) and *Nicotiana tabacum* (Nt). At least two plants of each herbaceous indicator species must be used in each test. Tests are to be carried out using the new season’s growth in the spring. Plants shall be sampled from at least two positions on every stem including a young, fully expanded leaf at the top of each stem and an older leaf from a midway position. Herbaceous indicator plants must be grown under appropriate temperatures and must be shaded for 24 hrs prior to inoculation. Maintain post-inoculated indicator species under appropriate glasshouse conditions for at least 4 weeks. Inspect inoculated indicator plants at least twice per week for symptoms of virus infection.
4. Enzyme linked immunosorbent assay (ELISA) and PCR tests for viruses. Tests are to be carried out using the new season’s growth from grafted cuttings or tissue culture in the

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spring. Plants shall be sampled from at least two positions including a young, fully expanded leaf at the top of the stem and an older leaf from a midway position.

5. All PCR and ELISA tests must be validated using positive controls prior to use in quarantine testing. Positive and negative controls (including a blank water control for PCR) must be used in all tests. Ideally positive internal controls and a negative plant control should also be used in PCR tests.

6. Inspect *Vaccinium* plants for signs of pest and disease at least twice per week during periods of active growth and once per week during dormancy.

7. With prior notification, MAF will accept other internationally recognised testing methods.

References

1. **Type of Vaccinium macrocarpon nursery stock approved for entry into New Zealand**
Cuttings (dormant); Plants in tissue culture

2. **Pests of Vaccinium macrocarpon**
Refer to the pest list.

3. **Entry conditions for:**

   3.1 *Vaccinium macrocarpon* cuttings and tissue culture from offshore MAF-accredited facilities in any country

   An offshore accredited facility is a facility that has been accredited to the MAF Standard PIT.OST.TRA.ACPQF to undertake phytosanitary activities. The operator of the accredited facility must also have an agreement with MAF on the phytosanitary measures to be undertaken for *Vaccinium macrocarpon*. Refer to the “*Vaccinium macrocarpon* Inspection, Testing and Treatment Requirements”.

   (i) **Documentation**

   **Phytosanitary certificate**: a completed phytosanitary certificate issued by the NPPO of the exporting country must accompany all *Vaccinium macrocarpon* nursery stock exported to New Zealand.

   **Import permit**: an import permit is required.

   (ii) **Phytosanitary requirements**

   Before a phytosanitary certificate is issued, the NPPO of the exporting country must be satisfied that the following activities required by MAF have been undertaken.

   The *Vaccinium macrocarpon* cuttings / plants in tissue culture [choose ONE option] have been:

   - inspected in accordance with appropriate official procedures and found to be free of any visually detectable regulated pests.

   AND

   - treated for regulated insects and mites as described in section 2.2.1.6 of the basic conditions within 7 days prior to shipment [cuttings only].

   AND

   - held and tested for/classified free from specified regulated pests as required in the agreement between MAF and the [name of the MAF-accredited facility]

   AND

   - held in a manner to ensure that infestation/reinfestation does not occur following inspection and testing at the accredited facility, and certification.
(iii) Additional declarations to the phytosanitary certificate
If satisfied that the pre-shipment activities have been undertaken, the exporting country NPPO must confirm this by recording the treatments applied in the “Disinfestation and/or Disinfection Treatment” section and by providing the following additional declarations to the phytosanitary certificate:

"The *Vaccinium macrocarpon* cuttings / plants in tissue culture [choose ONE option] have been
- held and tested for/classified free from specified regulated pests as required in the agreement between MAF and the [name of the MAF-accredited facility].

AND
- held in a manner to ensure infestation/reinfestation does not occur following inspection and testing at the accredited facility, and certification."

(iv) Special tissue culture media requirements
The tissue culture media must not contain charcoal.

(v) Post-entry quarantine
PEQ: All *Vaccinium macrocarpon* nursery stock must be imported under permit into post-entry quarantine in a level 2 quarantine facility accredited to MAF standard PBC-NZ-TRA-PQCON Specification for the registration of a plant quarantine or containment facility, and operator.

Quarantine Period and Inspection, Testing and Treatment Requirements: The nursery stock will be grown for a minimum period of 6 months in post-entry quarantine and will be inspected, treated and/or audit-tested for regulated pests, at the expense of the importer. Six months is an indicative minimum quarantine period and this period may be extended if material is slow growing, pests are detected, or treatments/testing are required.

3.2 *Vaccinium macrocarpon* cuttings and tissue culture from non-accredited facilities in any country

(i) Documentation
Phytosanitary certificate: a completed phytosanitary certificate issued by the NPPO of the exporting country must accompany all *Vaccinium macrocarpon* nursery stock exported to New Zealand.

Import permit: an import permit is required.

(ii) Phytosanitary requirements
Before a phytosanitary certificate is issued, the NPPO of the exporting country must be satisfied that the following activities required by MAF have been undertaken.

The *Vaccinium macrocarpon* cuttings / plants in tissue culture [choose ONE option] have been:
- inspected in accordance with appropriate official procedures and found to be free of any visually detectable regulated pests.

AND
- treated for regulated insects and mites as described in section 2.2.1.6 of the basic conditions within 7 days prior to shipment [cuttings only].

AND
- held in a manner to ensure that infestation/reinfestation does not occur following
(iii) **Additional declarations to the phytosanitary certificate**

If satisfied that the pre-shipment activities have been undertaken, the exporting country NPPO must confirm this by recording the treatments applied in the “Disinfestation and/or Disinfection Treatment” section. No additional declarations are required.

(iv) **Post-entry quarantine**

**PEQ:** All *Vaccinium macrocarpon* nursery stock must be imported under permit into post-entry quarantine in a level 3 quarantine facility accredited to MAF standard PBC-NZ-TRA-PQCON Specification for the registration of a plant quarantine or containment facility, and operator.

**Quarantine Period and Inspection, Testing and Treatment Requirements:** The nursery stock will be grown for a minimum period of either 9 (tissue culture) or 16 months (cuttings) in post-entry quarantine. During this time it will be inspected, treated and/or tested for regulated pests as specified in the “Inspection, Testing and Treatment Requirements for *Vaccinium macrocarpon*”, at the expense of the importer. These times are indicative minimum quarantine periods and may be extended if material is slow growing, pests are detected, or treatments/testing are required.
Pest List for *Vaccinium macrocarpon*

REGULATED PESTS (actionable)

**Insect**

**Coleoptera**

- *Chrysomelidae*
  - *Rhabdopterus picipes* cranberry rootworm
  - *Anthonomus musculus* cranberry weevil
  - *Pseudanthonomus validus* currant fruit weevil

- *Scarabaeidae*
  - *Popillia japonica* Japanese beetle

- *Diptera*
  - *Tephritidae*
    - *Rhagoletis pomonella* apple maggot fly

- *Homoptera*
  - *Aphididae*
    - *Aphis vaccinii* blueberry aphid
    - *Illinoia azaleae* azalea aphid
    - *Illinoia borealis* aphid
  - *Cicadellidae*
    - *Euscelis striatulus* Blunt-nosed leafhopper

- *Hymenoptera*
  - *Tenthredinidae*
    - *Pristiphora idiota* willow redgall sawfly

- *Lepidoptera*
  - *Arctiidae*
    - *Hyphantria cunea* fall webworm
  - *Geometridae*
    - *Itame ribearia* currant spanworm
  - *Noctuidae*
    - *Acronicta tritona* acronicta caterpillar
    - *Actebia fennica* black army cutworm
  - *Pyralidae*
    - *Acrobasis vaccinii* cranberry fruitworm
  - *Tortricidae*
    - *Archips rosanus* rose leafroller
    - *Argyrotaenia velutinana* red-banded leafroller
    - *Aroga tribralbaculella* leaffier
    - *Choristoneura hebenstreitella* tortricid
    - *Choristoneura rosaceana* oblique-banded leafroller
    - *Dichomeris vacciniella* leaffier
  - *Thysanoptera*
    - *Thripidae*
      - *Frankliniella vaccinii* blueberry thrips

**Mite**

**Arachnida**

- *Acarina*
  - *Eriophyidae*
    - *Acalitus vaccinii* blueberry bud mite

**Fungus**

**Ascomycota**

- *Diaporthales*
  - *Valsaceae*
    - *Diaporthe vaccinii* (anamorph *Phomopsis vaccinii*) twig blight
Dothideales
  Botryosphaeriaceae
  Botryosphaeria vaccinii (anamorph Phyllosticta elongata) --

Erysiphales
  Erysiphaceae
  Microsphaera vaccinii
  Microsphaera penicillata

Leotiales
  Leotiaeae
  Godronia cassandrae (anamorph Fusicoccum putrefaciens) foliage spot
  Godronia cassandrae f. sp. vaccinii cane canker

Sclerotiniaceae
  Monilinia fructigena (anamorph Monilia fructigena) European brown rot
  Monilinia oxycocci -

Rhytismatales
  Rhytismataceae
  Lophodermium hypophyllum -
  Lophodermium maculare leaf spot
  Lophodermium oxycocci -

Basidiomycota: Basidiomycetes
  Agaricales
  Tricholomataceae
  Armillaria mellea (anamorph Rhizomorpha subcorticalis) armillaria root rot

Basidiomycota: Teliomycetes
  Uredinales
  Pucciniastreaceae
  Pucciniastrum goeppertianum rust
  Pucciniastrum vaccinii rust

Chytridiomycota
  Chytridiaceae
  Synchytrium vaccinii red leaf gall

mitosporic fungi (Coelomycetes)
  Sphaeropsidales
  Sphaerioidaceae
  Coniothyrium vaccinicola brand canker
  Phoma vaccinii stem blight
  Septoria vaccinii septoria spot
  Strasseria oxycocci fruit rot

unknown Coelomycetes
  unknown Coelomycetes
  Gloeosporium minus leaf spot and stem canker
  Leptothyrium conspicuum fly speck

mitosporic fungi (Hyphomycetes)
  Hyphomycetales
  Dematiaceae
  Curvularia inaequalis leaf mould

Bacterium
  Pseudomonadaceae
  Pseudomonas syringae pv. morsprunorum bacterial canker
  Rhizobiaceae
  Agrobacterium rubi cane gall

Virus
  Blueberry scorch virus
  Blueberry red ringspot virus (syn. Cranberry ringspot virus) -
  Tobacco streak virus [strains not in New Zealand] -

Phytoplasma
  Cranberry false blossom phytoplasma -
NON-REGULATED PESTS (non-actionable)

Insect
Insecta
Coleoptera
Chrysomelidae
  Eucolaspis brunnea  bronze beetle
Curculionidae
  Asynonychus cervinus  Fuller's rose weevil
  Ireninus compressus  compressed weevil
  Listerodes difficilis  vegetable weevil
  Otiorynchus sulcatus  black vine weevil
  Phlyctinus callosus  banded fruit weevil
Scarabaeidae
  Costelytra zealandica  grass grub
  Odontria xanthosticta  scarab beetle
Diptera
  Anthomyiidae
    Delia platula  seedcorn maggot
Homoptera
  Aphididae
    Aulacorthum circumflexum  mottled arum aphid
    Aulacorthum solani  foxglove aphid
    Myzus ornatus  ornate aphid
Cercopidae
  Philaenus spumarius  meadow spittlebug
Coccidae
  Coccus hesperidum  brown soft scale
  Coccus longulus  long brown scale
Diaspididae
  Aspidiotus nerii  oleander scale
  Hemiberlesia rapax  greedy scale
Lepidoptera
  Geometridae
    Declana floccosa  forest semiolooper
  Psychidae
    Liothula omnivora  bag moth
Tortricidae
  Ctenopseustis obliquana  brownheaded leafroller
  Epiphyas postvittana  light brown leafroller
Fungus
Ascomycota
  Dothideales
    Botryosphaeriaceae
      Botryosphaeria obtusa (anamorph Sphaeropsis malorum)  blight
    Leptosphaeriaceae
      Leptosphaeria coniothyrium (anamorph Coniothyrium fuckelii)  common canker
Leotiales
    Leotiaceae
      Discohainesia oenotherae (anamorph Hainesia lythri)  leaf spot
Basidiomycota: Ustomycetes
  Exobasidiales
    Exobasidium vaccinii  red leaf gall
Oomycota
  Pythiales
    Pythiaceae
      Phytophthora cinnamomi  phytophthora crown and root rot
<table>
<thead>
<tr>
<th>Kingdom</th>
<th>Class</th>
<th>Order</th>
<th>Family</th>
<th>Genus</th>
<th>Species</th>
<th>Disease/Pathogen</th>
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<tbody>
<tr>
<td>Mucorales</td>
<td>Mucoraceae</td>
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<td></td>
<td><strong>Rhizopus stolonifer</strong></td>
<td></td>
<td>rhizopus soft rot</td>
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<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>unknown Coelomycetes</td>
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<tr>
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<td></td>
<td></td>
<td></td>
<td><strong>Pestalotia vaccinii</strong></td>
<td></td>
<td>leaf spot</td>
</tr>
<tr>
<td>Mitosporic fungi (Coelomycetes)</td>
<td></td>
<td></td>
<td></td>
<td><strong>Rhizopus stolonifer</strong></td>
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<td>unknown Coelomycetes</td>
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<td></td>
<td></td>
<td><strong>Pestalotia vaccinii</strong></td>
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<td>leaf spot</td>
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<tr>
<td>Mitosporic fungi (Hyphomycetes)</td>
<td></td>
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<td></td>
<td><strong>Alternaria alternata</strong></td>
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<td>black stalk rot</td>
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<tr>
<td>Hyphomycetales</td>
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<td><strong>Alternaria alternata</strong></td>
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<td>black stalk rot</td>
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<tr>
<td><strong>Bacterium</strong></td>
<td></td>
<td></td>
<td></td>
<td><strong>Pseudomonadaceae</strong></td>
<td><strong>Pseudomonas syringae</strong></td>
<td>bacterial blast</td>
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<td></td>
<td></td>
<td></td>
<td><strong>Pseudomonas viridiflava</strong></td>
<td>leaf blight</td>
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<td><strong>Rhizobiaceae</strong></td>
<td></td>
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<td><strong>Agrobacterium tumefaciens</strong></td>
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<td>crown gall</td>
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<tr>
<td><strong>Virus</strong></td>
<td></td>
<td></td>
<td></td>
<td><strong>Tobacco streak virus</strong></td>
<td>[Black raspberry latent strain]</td>
<td>-</td>
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</tbody>
</table>
## Inspection, Testing and Treatment Requirements for *Vaccinium macrocarpon*

<table>
<thead>
<tr>
<th>ORGANISM TYPES</th>
<th>MAF-ACCEPTED METHODS (See notes below)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Insects</strong></td>
<td>Visual inspection AND approved insecticide treatments (Refer to section 2.2.1.6 of the basic conditions)</td>
</tr>
<tr>
<td><strong>Mite</strong></td>
<td>Visual inspection AND approved miticide treatments (Refer to section 2.2.1.6 of the basic conditions)</td>
</tr>
<tr>
<td><strong>Fungi</strong></td>
<td>Growing season inspection in PEQ for disease symptom expression.</td>
</tr>
<tr>
<td><strong>Bacterium</strong></td>
<td><strong>Agrobacterium rubi</strong> Growing season inspection in PEQ for disease symptom expression.</td>
</tr>
<tr>
<td></td>
<td><strong>Pseudomonas syringae pv. morsprunorum</strong> Growing season inspection in PEQ for disease symptom expression AND PCR (Bereswill et al., 1994).</td>
</tr>
<tr>
<td><strong>Virus</strong></td>
<td><strong>Blueberry scorch virus</strong> Herbaceous indicator Cq AND ELISA or PCR AND TEM.</td>
</tr>
<tr>
<td></td>
<td><strong>Blueberry red ringspot virus</strong> (syn. Cranberry ringspot virus) ELISA or PCR AND TEM.</td>
</tr>
<tr>
<td></td>
<td><strong>Tobacco streak virus</strong> [strains not in New Zealand] Herbaceous indicators Cq and Nt AND ELISA or PCR AND TEM.</td>
</tr>
<tr>
<td><strong>Phytoplasmas</strong></td>
<td><strong>Cranberry false blossom phytoplasma</strong> PCR using the universal phytoplasma fU5/rU3 primers (Lorenz et al. 1995) AND R16F2n/R16R2 primers (Gundersen et al. 1996).</td>
</tr>
</tbody>
</table>

### Notes:
1. The unit for testing is an individual plantlet or cutting. Each single plantlet and cutting must be labelled individually and tested separately.
2. Transmission electron microscopy (TEM); in the spring, leaves from grafted cuttings or tissue culture must be observed under the electron microscope for virus particles.
3. Herbaceous indicator hosts: *Chenopodium quinoa* (Cq) and *Nicotiana tabacum* (Nt). At least two plants of each herbaceous indicator species must be used in each test. Tests are to be carried out using the new season’s growth in the spring. Plants shall be sampled from at least two positions on every stem including a young, fully expanded leaf at the top of each stem and an older leaf from a midway position. Herbaceous indicator plants must be grown under appropriate temperatures and must be shaded for 24 hrs prior to inoculation. Maintain post-inoculated indicator species under appropriate glasshouse conditions for at least 4 weeks. Inspect inoculated indicator plants at least twice per week for symptoms of virus infection.
4. Enzyme linked immunosorbent assay (ELISA) and PCR tests for viruses. Tests are to be carried out using the new season’s growth from grafted cuttings or tissue culture in the spring. Plants shall be sampled from at least two positions including a young, fully expanded leaf at the top of the stem and an older leaf from a midway position.
5. All PCR and ELISA tests must be validated using positive controls prior to use in quarantine testing. Positive and negative controls (including a blank water control for PCR) must be used in all tests. Ideally positive internal controls and a negative plant control should also be used in PCR tests.
6. Inspect *Vaccinium macrocarpon* plants for signs of pest and disease at least twice per week during periods of active growth and once per week during dormancy.
7. With prior notification, MAF will accept other internationally recognised testing methods.
References
**Verbena**

**Note:** The entry conditions in this schedule only apply to species in the Plants Biosecurity Index listed under Import Specifications for Nursery Stock as “see 155.02.06 under *Verbena*”, and are additional to those specified in sections 1, 2 and 3 of the import health standard.

**GENERAL CONDITIONS:**

**Countries:** All

**Quarantine Pests:** *Tetranychus kanzawai*, Uredinales

**Entry Conditions:** Basic; with variations and additional conditions as specified below:

**A. For Whole Plants**

**PEQ:** Level 2

**Minimum Period:** 3 months

**Additional Declarations:**

1. "Rust diseases are not known to occur on ___ (the imported genus) in ___ (the country in which the plants were grown) ___".

2. "The plants have been dipped prior to export in dicofol at the rate of 0.7g a.i. per litre of water".

**B. For Dormant Bulbs from Australia, Austria, Belgium, Canada, Denmark, Finland, France, Germany, Greece, Ireland, Israel, Italy, Luxembourg, The Netherlands, Portugal, South Africa, Spain, Sweden, United Kingdom, USA:**

**OPTION 1:**

No import permit is required.

**PEQ:** None

“In addition to inspection of dormant bulbs prior to shipment, the crop from which the bulbs were derived was inspected during the growing season according to appropriate procedures, and considered free of quarantine pests, and practically free from other injurious pests.”

**OPTION 2:**

**PEQ:** Level 1

**Minimum Period:** 3 months
C. For Dormant Bulbs from Countries other than Australia, Austria, Belgium, Canada, Denmark, Finland, France, Germany, Greece, Ireland, Israel, Italy, Luxembourg, The Netherlands, Portugal, South Africa, Spain, Sweden, United Kingdom, USA:

OPTION 1:
PEQ: Level 1
Minimum Period: 3 months
Additional Declaration(s):
"The dormant bulbs in this consignment have been:
- derived from a crop which was inspected during the growing season according to appropriate procedures and found to be free of regulated pests.
AND
- treated for regulated insects as described in section 2.2.1.7 of the basic conditions within 7 days prior to freezing, cold-storage or shipment."

OPTION 2:
PEQ: Level 2
Minimum Period: 3 months

D. For Tissue Cultures:
As for Standard Entry Conditions for Tissue Cultures - see Section 2.2.2.
**Viburnum**

**Note:** The entry conditions in this schedule only apply to species in the Plants Biosecurity Index listed under Import Specifications for Nursery Stock as “see 155.02.06 under *Viburnum*”, and are additional to those specified in sections 1, 2 and 3 of the import health standard.

**GENERAL CONDITIONS:**

**Countries:** Australia, Austria, Belgium, Canada, Denmark, Finland, France, Germany, Greece, Ireland, Israel, Italy, Luxembourg, The Netherlands, Portugal, Spain, Sweden, United Kingdom, USA.

**Quarantine Pests:** *Phytophthora ramorum*; Uredinales

**Entry Conditions:** Basic; with variations and additional conditions as specified below:

A. For Cuttings and Whole Plants from Australia and Canada (these commodities may not be imported from other countries):

   **PEQ:** Level 2
   **Minimum Period:** 3 months
   **Additional Declaration(s):**
   1. "Rust diseases of genus *Coleosporium* and *Cronatium* are not known to occur on _____ (the host species being imported) _____ in _____ (the country in which the plants were grown) _____ ".
   2. "The plants have been sourced from a “Pest free area”, free from *Phytophthora ramorum*.

B. For Plants in Tissue Culture:
   As for **Standard Entry Conditions for Tissue Cultures** - see Section 2.2.2
**Vitis**

**Note:** The entry conditions in this schedule only apply to species in the Plants Biosecurity Index listed under Import Specifications for Nursery Stock as “see 155.02.06 under *Vitis*”, and are additional to those specified in sections 1, 2 and 3 of the import health standard.

1. **Type of *Vitis* nursery stock approved for entry into New Zealand**
   Cuttings (dormant); Plants in tissue culture

   *Vitis* can be imported into Level 2 post entry quarantine from MAF-accredited facilities, or into Level 3 post entry quarantine from non-accredited facilities.

2. **Pests of *Vitis***
   Refer to the pest list.

3. **Entry conditions for:**
   3.1 *Vitis* cuttings and tissue culture from offshore MAF-accredited facilities in any country
   An offshore accredited facility is a facility that has been accredited to the MAF Standard PIT.OS.TRA.ACPQF to undertake phytosanitary activities. For *Vitis*, the accredited facility operator must also have an agreement with MAF on the phytosanitary measures to be undertaken for *Vitis*.

   (i) **Documentation**
   - **Phytosanitary certificate:** a completed phytosanitary certificate issued by the NPPO of the exporting country must accompany all *Vitis* nursery stock exported to New Zealand.
   - **Import permit:** an import permit is required.

   (ii) **Phytosanitary requirements**
   Before a phytosanitary certificate is to be issued, the exporting country NPPO must be satisfied that the following activities required by MAF have been undertaken.

   The *Vitis* cuttings / plants in tissue culture [choose ONE option] have been:
   - inspected in accordance with appropriate official procedures and found to be free of any visually detectable regulated pests.
   - treated for regulated insects and mites as described in section 2.2.1.6 of the basic conditions within 7 days prior to shipment [cuttings only].
   - sourced from either mother plants that have been kept in insect-proof plant houses or from open ground mother plants [cuttings only, choose ONE option].
   - held and tested for/classified free from specified regulated pests as required in the agreement between MAF and the [name of the MAF-accredited facility].
   - held in a manner to ensure that infestation/reinfestation does not occur following inspection and testing at the accredited facility, and certification.
Additional declarations to the phytosanitary certificate
If satisfied that the pre-shipment activities have been undertaken, the exporting country NPPO must confirm this by recording the treatments applied in the “Disinfestation and/or Disinfection Treatment” section and by providing the following additional declarations to the phytosanitary certificate:

"The Vitis cuttings / plants in tissue culture [choose ONE option] have been:
- held and tested for/classified free from specified regulated pests as required in the agreement between MAF and the [name of the MAF-accredited facility].
AND
- sourced from mother plants that have been kept in insect-proof plant houses or sourced from open ground mother plants [cuttings only, choose ONE option].
AND
- held in a manner to ensure infestation/reinfestation does not occur following inspection and testing at the accredited facility, and certification."

Post-entry quarantine
PEQ: All Vitis nursery stock must be imported under permit into post-entry quarantine in a level 2 quarantine facility accredited to MAF standard PBC-NZ-TRA-PQCON Specification for the registration of a plant quarantine or containment facility, and operator.
Quarantine Period and Inspection, Testing and Treatment Requirements: Upon arrival cuttings will be dipped in 1% sodium hypochlorite for 2 minutes [cuttings only]. The nursery stock will be grown for a minimum period of either 6 months (plants in tissue culture and cuttings sourced from mother plants that have been kept in insect-proof plant houses) or 16 months (cuttings sourced directly from open ground mother plants) in post-entry quarantine and will be inspected, treated and/or audit-tested for regulated pests, at the expense of the importer. These periods are indicative minimum quarantine periods and may be extended if material is slow growing, pests are detected, or treatments/testing are required.

3.2 Vitis cuttings and tissue culture from non-accredited facilities in any country

(i) Documentation
Phytosanitary certificate: a completed phytosanitary certificate issued by the NPPO of the exporting country must accompany all Vitis nursery stock exported to New Zealand.
Import permit: an import permit is required.

(ii) Phytosanitary requirements
Before a phytosanitary certificate is to be issued, the exporting country NPPO must be satisfied that the following activities required by MAF have been undertaken.

The Vitis cuttings / plants in tissue culture [choose ONE option] have been:
- inspected in accordance with appropriate official procedures and found to be free of any visually detectable regulated pests.
AND
- treated for regulated insects and mites as described in section 2.2.1.6 of the basic conditions within 7 days prior to shipment [cuttings only].
AND
- held in a manner to ensure that infestation/reinfestation does not occur following inspection and testing at the accredited facility, and certification.
(iii) *Additional declarations to the phytosanitary certificate*

If satisfied that the pre-shipment activities have been undertaken, the exporting country NPPO must confirm this by recording the treatments applied in the “Disinfestation and/or Disinfection Treatment” section. No additional declarations are required.

(iv) *Post-entry quarantine*

**PEQ:** All *Vitis* nursery stock must be imported under permit into post-entry quarantine in a level 3 quarantine facility accredited to MAF standard PBC-NZ-TRA-PQCON *Specification for the registration of a plant quarantine or containment facility, and operator.*

**Quarantine Period and Inspection, Testing and Treatment Requirements:** Upon arrival cuttings will be dipped in 1% sodium hypochlorite for 2 minutes [cuttings only]. The nursery stock will be grown for a minimum period of 16 months in post-entry quarantine and will be inspected, treated and/or audit-tested for regulated pests, at the expense of the importer. Sixteen months is an indicative minimum quarantine period and this period may be extended if material is slow growing, pests are detected, or treatments/testing are required.
# Pest List for *Vitis*

## REGULATED PESTS (actionable)

### Insect

#### Insecta

##### Coleoptera

- **Bostrichidae**
  - *Amphicerus bicaudatus* - apple twig borer
  - *Amphicerus bimaculatus* - bostrichid beetle
  - *Amphicerus cornutus* - 
  - *Apane congner* - 
  - *Apane monachus* - black borer
  - *Bostrychopsis jesuita* - large auger beetle
  - *Dexicrates robustus* - 
  - *Melalgus confertus* - branch and twig borer
  - *Micrapate scabratia* - 
  - *Neoterius mistax* - 
  - *Psoa quadrisignata* - 
  - *Schistocerus bimaculatus* - grape cane borer
  - *Scobicia declivis* - lead cable borer
  - *Xylopertha retusa* - wood boring beetle
  - *Xylopsocus gibbicollis* - 

- **Buprestidae**
  - *Agrilus marginicollis* - flatheaded grape borer

- **Carabidae**
  - *Adoxus obscurus* [Animals Biosecurity] - 

- **Cerambycidae**
  - *Acalolepta vastator* - grape trunk borer
  - *Cerasphorus albofasciatus* - 

- **Chrysomelidae**
  - *Altica chalybaea* - grape flea beetle
  - *Altica torquata* - grapevine flea beetle
  - *Bromius obscurus* - western grape rootworm
  - *Fidia vitilica* - grape root worm
  - *Glyptoscelis squamulata* - grape bud beetle
  - *Haltica spp.* - 
  - *Monolepta australis* - red-shouldered leaf beetle

- **Coccinellidae**
  - *Coccinella transversoguttata* [Animals Biosecurity] - 
  - *Midas pygmaeus* [Animals Biosecurity] - 
  - *Nephus reunioni* [Animals Biosecurity] - 
  - *Rhyzobius ruficollis* [Animals Biosecurity] - 
  - *Stethorus spp.* [Animals Biosecurity] - 

- **Curculionidae**
  - *Bustomus setulosus* - brown weevil
  - *Craponius inaequalis* - grape curculio
  - *Dischista cincna* - flower beetle
  - *Eremmus atratus* - black weevil
  - *Eremmus cerealis* - western province grain worm
  - *Eremmus setulosus* - grey weevil
  - *Naupactus xanthographus* - fruit tree weevil
  - *Orthorhinus cylindrostris* - elephant weevil
  - *Orthorhinus klugi* - immigrant acacia weevil
  - *Otolynchrus cribricollis* - cribrate weevil
  - *Perperus spp.* - apple root weevils
  - *Platyaspistes glaucus* - 
  - *Platyaspistes venustus* - 
  - *Rhigopsis effracta* - 
  - *Tanyrhynchus carinatus* - bud nibbler
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<thead>
<tr>
<th>Insect Family</th>
<th>Species</th>
<th>Common Name</th>
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<tbody>
<tr>
<td>Elateridae</td>
<td>Limonius canus</td>
<td>Pacific Coast wireworm</td>
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<tr>
<td>Meloidae</td>
<td>Mylabris oculata</td>
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<td>Scarabaeidae</td>
<td>Athalia rustica</td>
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<td>Cotula ursina</td>
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<td>Hoplia callipyge</td>
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<td>Hoplia pubicollis</td>
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<td></td>
<td>Macrodactylus subspinosus</td>
<td>rose chafer</td>
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<td>Pachnoda sinuata</td>
<td>scarab beetle</td>
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<td>Popillia japonica</td>
<td>Japanese beetle</td>
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<td>Schizonycha sp.</td>
<td>cockchafer</td>
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<tr>
<td>Scolytidae</td>
<td>Scolytus japonicus</td>
<td>Japanese bark beetle</td>
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<td>Xyleborus dispar</td>
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<td>Xyleborus semiopacus</td>
<td>black twig borer</td>
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<tr>
<td>Staphylinidae</td>
<td>Oligota pygmaea [Animals Biosecurity]</td>
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<tr>
<td>Tenebrionidae</td>
<td>Blapstinus sp.</td>
<td>darkling beetle</td>
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<td>Coniontis parviceps</td>
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<td>Diptera</td>
<td>Cecidomyiidae</td>
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<td>Diadiplosis koebelai</td>
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<td>Tachinidae</td>
<td>Ollacheryphe aenea [Animals Biosecurity]</td>
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<td>Sturmia harrisinae [Animals Biosecurity]</td>
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<td>Voriella uniseta [Animals Biosecurity]</td>
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<td>Hemiptera</td>
<td>Anthocoridae [Animals Biosecurity]</td>
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<td>Orius sp. [Animals Biosecurity]</td>
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<td>Coreidae</td>
<td>Anthocoris sp.</td>
<td>crusader bug</td>
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<td>Lygaeidae</td>
<td>Nysius raphanus</td>
<td>false chinch bug</td>
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<td>Nysius vinitor</td>
<td>Rutherglen bug</td>
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<td>Oxycarenus arctatus</td>
<td>coon bug</td>
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<td>Miridae</td>
<td>Creontiades dilutus</td>
<td>green mirid</td>
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<td>Pentatomidae</td>
<td>Euschistus conspersus</td>
<td>stink bug</td>
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<td>Oechalia schellenbergi [Animals Biosecurity]</td>
<td>Schellenberg's soldier bug</td>
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<td>Pyrrhocoridae</td>
<td>Dindymus versicolor</td>
<td>harlequin bug</td>
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<td>Aleyrodinae [Animals Biosecurity]</td>
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<td>Aleyrodidae</td>
<td>Aleurocanthus woglumi</td>
<td>citrus blackfly</td>
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<td></td>
<td>Tetraleurodes vittatus</td>
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<td>Trialeurodes vittata</td>
<td>grape whitefly</td>
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<td>Aphididae</td>
<td>Aphis illinoisensis</td>
<td>grapevine aphid</td>
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<td>Aphis medicaginis</td>
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<tr>
<td>Asterolecaniidae</td>
<td>Asterolecanium pustulans</td>
<td>oleander pit scale</td>
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<td>Cerocococcidae</td>
<td>Asterococcus muratae</td>
<td>pit scale</td>
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<td>Cicadellidae</td>
<td>Acia lineatifrons</td>
<td>leafhopper</td>
</tr>
<tr>
<td></td>
<td>Carneocephala fulgida</td>
<td>red-headed sharpshooter</td>
</tr>
</tbody>
</table>
Carneocephala fulgida [vector]  red-headed sharpshooter
Dikrella cockerellii  blackberry leafhopper
Draeculacephala minerva  green sharpshooter
Draeculacephala minerva [vector]  green sharpshooter
Empoasca sp.  green leafhopper
Erythronoea comes  eastern grape leafhopper
Erythronoea elegantula  western grape leafhopper
Erythronoea variabilis  variegated grape leafhopper
Erythronoea ziczac  -
Graphocephala atropunctata  leafhopper
Graphocephala atropunctata [vector]  blue-green sharpshooter
Hordnia circellata  -
Scaphoideus titanus [vector]  raspberry leafhopper

Cicadidae
Platypedia minor  -
Tettigades chilensis  -

Coccidae
Ceroplastes rusci  fig wax scale
Eulecanium cerasorum  calico scale
Eulecanium pruinosum  frosted scale
Heliothecus bohemicus  scale
Parthenolecanium persicae  European peach scale
Pulvinaria betulae  scale
Pulvinaria innumerabilis  cottony maple scale
Pulvinaria vitis  woolly vine scale

Diaspididae
Aonidiella inornata  inornate scale
Chrysomphalus aonidum  Florida red scale
Diaspidiotus uvae  grape scale
Ocespidiotus spinosus  armoured scale
Parlatoria cinerea  chaff scale
Parlatoria oleae  olive scale
Pinnaspis strachani  hibiscus snow scale
Pseudaonidia tilobitiformis  trilobite scale
Pseudoaulacaspis pentagona  white peach scale
Quadraspis juglandisregiae  walnut scale
Selenaspis articulatus  West Indian red scale

Margarodidae
Eurhizococcus brassiliensis  margarodid
Icerya seychellarum  Seychelles scale
Margarodes capensis  Seychelles fluted scale
Margarodes greeni  soft scale
Margarodes meridionalis  -
Margarodes prieskaensis  margarodid
Margarodes trimeni  margarodid
Margarodes vitis  -
Margarodes vredendalensis  margarodid

Membracidae
Ceresa bubalus  tree hopper
Spissistilus bisonia  -
Spissistilus festinus  three-cornered alfalfa hopper

Phylloxeridae
Viteus vitifoliae [strain]  grape phylloxera

Pseudococcidae
Macconellicoccus hirsutus  pink hibiscus mealybug
Planococcus ficus  fig mealybug
Pseudococcus capensis  -
Pseudococcus maritimus  grape mealybug
Rhizococcus kondonis  Kondo mealybug

Hymenoptera
Aphelinidae
Coccophagus caridei [Animals Biosecurity]  -
Coccophagus gurneyi [Animals Biosecurity] -

Bethylidae
Goniozus platynota [Animals Biosecurity] -

Braconidae
Apanteles harrisinae [Animals Biosecurity] -
Bracon cushmani [Animals Biosecurity] -
Dolichogenidea tasmanica [Animals Biosecurity] -

Dryinidae
Aphelopus albopictus [Animals Biosecurity] -

Encyrtidae
Acerophagus notativentris [Animals Biosecurity] -
Anagyrus clauseni [Animals Biosecurity] -
Anagyrus fusciventris [Animals Biosecurity] -
Anagyrus pseudococci [Animals Biosecurity] -
Leptomastix dactylopii [Animals Biosecurity] parasitic wasp
Metaphycus flavus [Animals Biosecurity] -
Pseudaphycus angelicus [Animals Biosecurity] -
Zarhopalus corvinus [Animals Biosecurity] -

Eulophidae
Colpoclypeus flavus [Animals Biosecurity] -

Formicidae
Anoplolepis steingroeveri [Animals Biosecurity] black ant
Crematogaster peringueyi [Animals Biosecurity] cocktail ant
Formica cinerea [Animals Biosecurity] ant
Pogonomyrmex californica [Animals Biosecurity] California harvester ant
Solenopsis xyloni [Animals Biosecurity] southern fire ant
Veromessor pergandei [Animals Biosecurity] desert seed-harvester ant

Ichneumonidae
Campoplex capitator [Animals Biosecurity] -
Dicaelotus inflexus [Animals Biosecurity] -

Mymaridae
Anagrus epos [Animals Biosecurity] -

Pteromalidae
Opheleia charlesii [Animals Biosecurity] -
Pachyneuron sp. [Animals Biosecurity] -

Trichogrammatidae
Trichogramma funiculatum [Animals Biosecurity] -
Trichogrammatomyia tortricis [Animals Biosecurity] -

Vespidae
Polistes buysoni [Animals Biosecurity] -

Isoptera
Kalotermitidae
Cryptotermes brevis West Indian drywood termite
Kalotermes flavicollis termite
Kalotermes minor -
Neotermes chilensis termite

Rhinotermitidae
Coptotermes acinaciformis [official control] Australian subterranean termite
Reticulitermes hesperus -

Termopsidae
Porotermes quadricollis -

Lepidoptera
Agaristidae
Agarista agricola painted vine moth
Heraclea superba grapevine zebra moth

Arctiidae
Estigmene acrea saltmarsh caterpillar
Hyphantria cunea fall webworm
Laora variabilis -
Spilosoma virginica yellow woollybear
Turuptiana obliqua tiger moth

Cossidae
Coryphodema tristis — quince trunk borer
Zeuzera coffeae — red coffee borer

**Heliozelidae**

*Antispila rivillei*

**Noctuidae**

*Achaea* spp. — fruit-piercing moths
*Agrotis munda* — brown cutworm
*Alabama argillacea* — cotton leafworm
*Anomis mesogona* — hibiscus looper
*Anomis* spp. — fruit-piercing moths
*Calyptra* spp. — noctuid moth
*Copitarsia consueta* — fruit-piercing moths
*Eudocima* spp. — darksided cutworm
*Euxoa messoria* — redbacked cutworm
*Euxoa ochrogaster* — oriental tobacco budworm
*Helicoverpa punctigera* — -
*Mythimna* sp. — broad-bordered yellow underwing
*Noctua fimbrivata* — large yellow underwing
*Noctua pronuba* — fruit-piercing moths
*Oraesia* spp. — cutworm
*Orthodes rufula* — variegated cutworm
*Peridroma margaritosa* — fruit-piercing moth
*Peridroma saucia* — -
*Protorthodes rufula* — cotton leafworm
*Serrodes* spp. — spotted cutworm
*Sphingomorpha* spp. — grape leaf-folder
*Xestia c-nigrum* — grape root borer

**Oecophoridae**

*Echiumima* sp. — -
*Maraga melanostigma* — fruit tree borer

**Psychidae**

*Gymnelema plebigena* — bagworm

**Pterophoridae**

*Geina periscelidactylus* — -

**Pyralidae**

*Desmia funeralis* — grape leaf-folder
*Euzophera bigella* — quince moth
*Ostrinia nubilalis* — European corn borer

**Saturniidae**

*Hemileuca eglanterina* — brown day-moth
*Hyalophora cecropia* — cecropia moth

**Sesiidae**

*Vitacea polistiformis* — grape root borer

**Sphingidae**

*Eumorpha achemon* — achemon sphinx
*Hippotion celerio* — grapevine hawk moth
*Hyles euphorbiae* — spurge hawk moth
*Hyles lineata* — whitelined sphinx
*Theretra capensis* — grapevine hawk moth
*Theretra oldenlandiae* — grape vine moth

**Tortricidae**

*Archips argyrospilus* — fruit tree leafroller
*Argyrotaenia citrana* — orange tortrix
*Argyrotaenia ljunghiana* — grey red-barred tortrix
*Argyrotaenia velutinana* — red-banded leafroller
*Cryptophlebia leucotreta* — false codling moth
*Endopiza viteana* — -
*Eulia stalactitis* — -
*Eupoeicilia ambigua* — vine moth
*Lobesia botrana* — grape berry moth
*Paralobesia viteana* — grape berry moth
<table>
<thead>
<tr>
<th>Insect Order</th>
<th>Family</th>
<th>Species</th>
<th>Description</th>
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<tr>
<td>Lepidoptera</td>
<td>Zygaenidae</td>
<td>Platygota stultana</td>
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<td>Proeuliidae</td>
<td>Proeulia auraria</td>
<td>grapevine leafroller</td>
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<td>Proeulia triquetra</td>
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<td>Neuroptera</td>
<td>Chrysopidae</td>
<td>Chrysopa oculata [Animals Biosecurity]</td>
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<td>Coniopterygidae</td>
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<td>Hemerobiidae</td>
<td>Micromus sp. [Animals Biosecurity]</td>
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<td>Orthoptera</td>
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<td>Melanoplus mexicanus devastator</td>
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<td>Microgyllus pallipes</td>
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<td>Tettigoniiidae</td>
<td>Caedicia spp.</td>
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<td>Drepanothrips reuteri</td>
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<td>Frankliniella cestrum</td>
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<td>Frankliniella minuta</td>
<td>minute flower thrips</td>
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<td>Frankliniella occidentalis [pesticide resistant strain]</td>
<td>western flower thrips</td>
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<td>Heliothrips sylvanus</td>
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<td>Rhipiphorothrips cruentatus</td>
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<td>Scirtothrips citri</td>
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<td>Scirtothrips sexmaculatus [Animals Biosecurity]</td>
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<td>Unknown Insecta</td>
<td>Cryptolarynx vitis</td>
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<td>Dystineis pulvinosus</td>
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<td>Mite</td>
<td>Arachnida</td>
<td>Anystidae</td>
<td>Anystis agilis [Animals Biosecurity]</td>
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<td>Eriophyidae</td>
<td>Colomerus vitis [leaf curling strain]</td>
<td>grape erineum mite</td>
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<td>Phyllocopites vitis</td>
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<td>Phytoseiidae</td>
<td>Amblyseius victoriensis [Animals Biosecurity]</td>
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<td>Typhlodromus doorenae [Animals Biosecurity]</td>
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<td>Tenuipalpidae</td>
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<td>Brevipalpus chilensis</td>
<td>false spider mite</td>
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<td>bunch mite</td>
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<td>Brevipalpus lilium</td>
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<td>Brevipalpus obovatus</td>
<td>privet mite</td>
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<td>Tenuipalpus granati</td>
<td>false spider mite</td>
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<td><strong>Tetranychidae</strong></td>
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<td>Eotetranychus pruni</td>
<td>hickory scorch mite</td>
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<td>Eotetranychus smithi</td>
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<td>Eotetranychus willamettei</td>
<td>hazel mite</td>
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<td>Yumi spider mite</td>
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<td>Eutetranychus orientalis</td>
<td>pear leaf blister mite</td>
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<td>Oligonychus coffeae</td>
<td>tea red spider mite</td>
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<td>Oligonychus puniceus</td>
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<td>Oligonychus yothersi</td>
<td>avocado red mite</td>
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<td>Tetranycus kanzawai</td>
<td>kanzawa mite</td>
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<td>Tetranycus mcdanieli</td>
<td>McDaniel spider mite</td>
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<td>Tetranycus pacificus</td>
<td>Pacific spider mite</td>
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**Mollusc**

**Gastropoda**

**Stylommatophora**

**Helicidae**

<table>
<thead>
<tr>
<th>Common Name</th>
<th>Scientific Name</th>
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<tbody>
<tr>
<td>Cernuelle virgata</td>
<td>small banded snails</td>
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<tr>
<td>Cochlicella barbara</td>
<td>small pointed garden snail</td>
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<tr>
<td>Theba pisana</td>
<td>white Italian snail</td>
</tr>
</tbody>
</table>

**Fungus**

**Ascomycota**

**Calicigales**

<table>
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<tr>
<th>Common Name</th>
<th>Scientific Name</th>
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<tbody>
<tr>
<td>Roesleria pallida</td>
<td>grape root rot</td>
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<td><strong>Diaporthales</strong></td>
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<tr>
<td>Valsaceae</td>
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<tr>
<td>Diaporthus rudis (anamorph Phomopsis rudis)</td>
<td>phomopsis canker</td>
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<td><strong>Dothideales</strong></td>
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<tr>
<td>Mycosphaerellaceae</td>
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<tr>
<td>Guignardia bidwellii (anamorph Phyllosticta ampelicida)</td>
<td>black rot</td>
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<td>Guignardia bidwellii f. sp. evitis</td>
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<tr>
<td>Guignardia bidwellii f. sp. muscadinii</td>
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<tr>
<td>Mycosphaerella angulata (anamorph Cercospora brachypus)</td>
<td>angular leaf spot</td>
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<td><strong>Schizothyriaceae</strong></td>
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<td>Schizothyrium pomi (anamorph Zygophiala jamaicensis)</td>
<td>fly speck</td>
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<td><strong>Hypocreales</strong></td>
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<td>Hypocreaceae</td>
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<td>Cylindrocarpon destructans var. crassum</td>
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<td><strong>Leotiales</strong></td>
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<td>Pseudoperispora tetraspore</td>
<td>angular leaf scorch</td>
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<td>Pseudoperispora tracheaphila</td>
<td>rotbrenner</td>
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<td><strong>Sclerotinaceae</strong></td>
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<td>Grovesinia pyramidalis (anamorph Cristulariella moricola)</td>
<td>target spot</td>
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<td><strong>Rhytismatales</strong></td>
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<td>Rhytismatraceae</td>
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<td>Rhytispa vitis</td>
<td>tar spot</td>
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<td><strong>Saccharomycetales</strong></td>
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<td>Saccharomycetaceae</td>
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<tr>
<td>Pichia membranaefaciens</td>
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</table>
**Unknown Ascomycota**

*Hyponectriaceae*

*Physalospora baccae* -

**Xylariales**

*Xylariaceae*

*Anthostomella pullulans* Brulure

**Basidiomycota: Basidiomycetes**

**Agaricales**

*Tricholomataceae*

*Armillaria mellea* (anamorph *Rhizomorpha subcorticalis*) armillaria root rot

*Armillaria sp.* armillaria root rot

*Armillaria tabescens* armillaria root rot

**Ganodermatales**

*Ganodermataceae*

*Ganoderma lucidum* (anamorph *Polyporus lucidus*) wood rot

*Ganoderma tsugae* -

**Porinales**

*Coriolaceae*

*Bjerkandera adusta* white rot

*Bjerkandera fumosa* --

*Lentinaceae*

*Pleurotus ostreatus* wood decay

**Stereales**

*Stereaceae*

*Stereum sp.* -

**Basidiomycota: Teliomycetes**

**Uredinales**

*Unknown Uredinales*

*Physopella ampelopsidis* grape rust

**Mitosporic Fungi**

*Unknown Mitosporic Fungi*

*Unknown Mitosporic Fungi*

*Phacellium sp.* -

**Mitosporic Fungi (Coelomycetes)**

**Sphaeropsidales**

*Sphaerioidaceae*

*Ascochyta ampelina* leaf spot

*Coniella diplodiella* white rot

*Coniella petrakii* white rot

*Phomopsis longipurpurea* phomopsis rot

*Pyrenochaeta vitis* leaf spot

*Septoria ampelina* septoria leaf spot

*Unknown Coelomycetes*

*Unknown Coelomycetes*

*Nattrassia toruloidea* leaf spot

*Pestalotia menezaiena* fruit rot

*Pestalotia pezizoides* fruit and leaf spot

*Pestalotopsis mangiferae* grey leaf spot of mango

*Pestalotopsis uvicola* fruit rot

**Mitosporic Fungi (Hyphomycetes)**

**Hyphomycetales**

**Dematiaceae**

*Alternaria vitis* leaf disease

*Phaeoramularia dissiliens* cercospora leaf spot

**Moniliaceae**

*Cephalosporium sp.* --

*Penicillium aurantiogriseum* penicillium rot

*Verticillium horticultum* -

*Unknown Hyphomycetes*

*Unknown Hyphomycetes*

*Briosa ampelophaga* leaf blotch

*Candida krusei* yeasty rot
Candida steatolytica [Animals Biosecurity]

Oldium sp. powdery mildew

Paecilomyces farinosus

Paecilomyces spp.

Phaeoacremonium aleophilum

Phaeoisariopsis sp.

Stigmina vitis leaf fall

Bacterium

Pseudomonadaceae
Xanthomonas campestris pv. viticola bacterial canker
Xylella fastidiosa Pierce's disease
Xylophilus ampelinus bacterial blight

Rhizobiaceae
Agrobacterium rubi cane gall

Virus

Artichoke Italian latent virus -
Broad bean wilt virus -
Cherry leaf roll virus [strains not in New Zealand] -
Grapevine Ajinashika disease virus -
Grapevine Algerian latent virus -
Grapevine angular mosaic virus -
Grapevine asteroid mosaic-associated virus -
Grapevine berry inner necrosis virus -
Grapevine Bulgarian latent virus -
Grapevine chrome mosaic virus -
Grapevine fanleaf virus [strains not in New Zealand] -
Grapevine labile rod-shaped virus -
Grapevine leafroll-associated virus [type 4] -
Grapevine leafroll-associated virus [type 5] -
Grapevine leafroll-associated virus [type 6] -
Grapevine leafroll-associated virus [type 7] -
Grapevine leafroll-associated virus [type 9] -
Grapevine line pattern virus -
Grapevine red globe virus -
Grapevine stunt virus -
Grapevine Tunisian ringspot virus -
Grapevine virus B [strains not in New Zealand] -
Grapevine virus C -
Grapevine virus D -
Peach rosette mosaic virus -
Petunia asteroid mosaic virus -
Raspberry ringspot virus -
Sowbane mosaic virus -
Strawberry latent ringspot virus [strains not in New Zealand] -
Tomato black ring virus -

Viroid

Australian grapevine viroid -
Grapevine yellow speckle viroid 1 -
Grapevine yellow speckle viroid 2 -
Hop stunt viroid -

Phytoplasma

Australian grapevine yellows phytoplasma -
Grapevine bois noir phytoplasma -
Grapevine flavescence doree phytoplasma -
Grapevine yellows -
Palatine grapevine yellows -
Tomato big bud phytoplasma -
Vergilbungskrankheit (German grapevine yellows)

Disease of unknown aetiology
LN33 stem grooving
## NON-REGULATED PESTS (non-actionable)

### Insect

#### Insecta

#### Coleoptera

- **Cerambycidae**
  - *Oemona hirta* - lemon tree borer

- **Chrysomelidae**
  - *Eucolaspis brunnea* - bronze beetle

- **Coccinellidae**
  - *Cryptolaemus montrouzieri* - mealybug destroyer

- **Curculionidae**
  - *Asynonychus cervinus* - Fuller's rose weevil
  - *Otiorhynchus sulcatus* - black vine weevil
  - *Phlyctinus callosus* - banded fruit weevil

- **Scarabaeidae**
  - *Costelytra zealandica* - grass grub
  - *Heteronychus arator* - black beetle

#### Dermaptera

- **Forficulidae**
  - *Forficula auricularia* - European earwig

#### Diptera

- **Drosophilidae**
  - *Drosophila melanogaster* - vinegar fly

#### Hemiptera

- **Pentatomidae**
  - *Nezara viridula* - green vegetable bug

#### Homoptera

- **Aphididae**
  - *Aphis gossypii* - cotton aphid
  - *Aphis spiraecola* - spirea aphid
  - *Myzus persicae* - green peach aphid

- **Coccidae**
  - *Coccus hesperidum* - brown soft scale
  - *Coccus persicae* - grapevine scale
  - *Lecanium persicae* - -
  - *Parasaissetia nigra* - nigra scale
  - *Parthenolecanium corni* - European fruit scale
  - *Saissetia oleae* - black scale

- **Diaspididae**
  - *Aonidiella aurantii* - California red scale
  - *Aspidiotus nerii* - oleander scale
  - *Hemiberlesia lataniae* - latania scale
  - *Hemiberlesia rapax* - greedy scale
  - *Lepidosaphes ulmi* - oystershell scale
  - *Quadraspidiotus perniciosus* - San Jose scale

- **Margarodidae**
  - *Icerya purchasi* - cottony cushion scale

- **Phylloxeridae**
  - *Viteus vitifoliae* - grape phylloxera

- **Pseudococcidae**
  - *Planococcus citri* - citrus mealybug
  - *Pseudococcus calceolariarum* - citrophilus mealybug
  - *Pseudococcus longispinus* - longtailed mealybug
  - *Pseudococcus viburni* - obscure mealybug
  - *Rhizococcus falcifer* - root mealybug

- **Riciiidae**
  - *Scolytopop australis* - passionvine hopper
Hymenoptera

Encyrtidae
- Tetracnemoidea brevicornis [Animals Biosecurity]
- Tetracnemoidea sydneyensis [Animals Biosecurity]

Formicidae
- Linepithema humile [Animals Biosecurity]
- Vespuca germanica [Animals Biosecurity]

Vespidae
- Vespuca sydneyensis

Lepidoptera

Agaristidae
- Phalaenoides glycinae
  grapevine moth

Noctuidae
- Agrotis ipsilon
  greasy cutworm
- Helicoverpa armigera
  tomato fruitworm

Tortricidae
- Ctenoplusia obliquana
  brownheaded leafroller
- Epiphyas postvittana
  light brown apple moth
- Planotortrix excessana
  greenheaded leafroller

Neuroptera

Chrysopidae
- Chrysopeirca carnea [Animals Biosecurity]

Thysanoptera

Arachnida

Acarina

Eriophyidae
- Colomerus vitis [bud strain]
  grape erineum mite
- Colomerus vitis [erineum strain]
  grape erineum mite

Phytoseiidae
- Phytoseiulus persimilis [Animals Biosecurity]
  predatory mite
- Typhlodromus pyri [Animals Biosecurity]
  predatory mite

Tarsonemidae
- Polyphagotarsonemus latus
  broad mite

Tenuiplalpidae
- Brevipalpus californicus
  bunch mite
- Brevipalpus phoenicis
  passion vine mite

Tetranychidae
- Calepitrimerus vitis
  grape leaf rust mite
- Eotetranychus sexmaculatus
  sixspotted mite
- Panonychus citri
  citrus red mite
- Panonychus ulmi
  European red mite
- Tetranychus cinnabarinus
  carmine spider mite
- Tetranychus urticae
  twospotted spider mite

Mite

Fungus

Ascomycota

Diatrypales

Diatrypaceae
- Eutypa armeniacae
  eutypa dieback
- Eutypa lata
  eutypa dieback
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Dothideales

Botryosphaeriaceae

Botryosphaeria dothidea (anamorph Fusccoccum aesculi) canker
Botryosphaeria obtusa (anamorph Sphaeroopsis malorum) blight
Botryosphaeria stevensii (anamorph Diplodia mutila) botryosphaeria canker

Elsinoaceae

Elsinoe ampelina (anamorph Sphaceloma ampelinum) anthracnose

Mycosphaerellaceae

Mycosphaerella personata (anamorph Pseudocercospora vitis) isariopsis blight
Mycosphaerella tassiana (anamorph Cladosporium herbarum) black leaf blight

Pleosporaceae

Pleospora herbarum (anamorph Stemphylium herbarum) black leaf blight

Erysiphales

Erysiphaceae

Phyllactinia guttata powdery mildew
Uncinula necator (anamorph Oidium tuckeri) powdery mildew

Hypocreales

Hypocreaceae

Calonectria kyotensis (anamorph Cylindrocladium scoparium) root and stem rot
Gibberella fujikuroi (anamorph Fusarium fujikuroi) fusarium rot
Nectria ochroleuca (anamorph Gliocladium roseum) fusarium rot
Nectria radicicola (anamorph Cylindrocarpon destructans) rot

Leotiales

Sclerotiniaceae

Botryotinia fuckeliana (anamorph Botrytis cinerea) grey mould
Monilinia fructicola American brown rot
Monilinia laxa (anamorph Monilia laxa) European brown rot
Sclerotinia sclerotiorum crottony rot

Phyllachorales

Phyllachoraceae

Glomerella cingulata (anamorph Colletotrichum gloeosporioides) anthracnose

Xylariales

Amphisphaeriaceae

Discostroma corticola (anamorph Seimatosporium lichenicola) stem spot

Xylariaceae

Rosellinia necatrix (anamorph Dematophora necatrix) white root rot

Basidiomycota: Basidiomycetes

Ceratobasidiaceae

Thanatephorus cucumeris (anamorph Rhizoctonia solani) rhizoctonia rot

Hymenochaetales

Hymenochoaceae

Phellinus punctatus heart rot
Phellinus robustus black measles

Poriales

Coriariaceae

Trametes versicolor white rot

Schizophyllales

Schizophyllaceae

Schizophyllum commune agaric stem rot

Stereales

Atheliaceae

Athelia rolfsii (anamorph Sclerotium rolfsii) Rolf's disease

Stereaceae

Stereum hirsutum black measles

Mitosporic Fungi

Unknown Mitosporic Fungi

Phaeomoniella chlamydospora -

Mitosporic Fungi (Agonomycetes)
<table>
<thead>
<tr>
<th>Domain</th>
<th>Class</th>
<th>Order</th>
<th>Genus</th>
<th>Species Name</th>
<th>Disease Name</th>
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<tr>
<td>Mitosporic Fungi</td>
<td>Agonomycetales</td>
<td></td>
<td><em>Beauveria bassiana</em></td>
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<td>Mitosporic Fungi</td>
<td>Sphaeropsidales</td>
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<td><em>Fusicoccum luteum</em></td>
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<td><em>Lasiodiplodia theobromae</em></td>
<td>fruit and stem-end rot</td>
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<td><em>Macrophomina phaseolina</em></td>
<td>ashly stem blight</td>
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<td><em>Phoma flaccida</em></td>
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<td><em>Phoma glomerata</em></td>
<td>phoma fruit and leaf spot</td>
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<td><em>Phoma plurivora</em></td>
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<td><em>Phomopsis viticola</em></td>
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<td>Unknown Coelomycetes</td>
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<td><em>Greeneria uvicola</em></td>
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<td>Hyphomycetales</td>
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<td><em>Alternaria alternata</em></td>
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<td><em>Cladosporium cladosporioides</em></td>
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<td><em>Aspergillus flavus</em></td>
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<td><em>Aspergillus niger</em></td>
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<td><em>Aspergillus wentii</em></td>
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<td><em>Cylindrocladiella parva</em></td>
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<td><em>Penicillium brev compactum</em></td>
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<td><em>Penicillium canescens</em></td>
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<td><em>Penicillium digitatum</em></td>
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<td><em>Penicillium glabrum</em></td>
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<td><em>Verticillium dahliae</em></td>
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<td>Tuberculariales</td>
<td>Tuberculariaceae</td>
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<td><em>Fusarium oxysporum</em></td>
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<td>Unknown Hyphomycetes</td>
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<td><em>Trichotheicum roseum</em></td>
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<td>Oomycota</td>
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<td></td>
<td><em>Plasmopara viticola</em></td>
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<td>Pythiales</td>
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<td><em>Phytophthora cactorum</em></td>
<td>phytophthora crown and root rot</td>
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<td><em>Phytophthora cinnamomis</em></td>
<td>phytophthora crown and root rot</td>
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<td><em>Phytophthora citricola</em></td>
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<td><em>Phytophthora cryptogea</em></td>
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<td><em>Phytophthora megasperma</em></td>
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<td><em>Phytophthora nicotianae</em></td>
<td>buckeye rot</td>
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<td><em>Pythium ultimum</em></td>
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<td>Zygomycota: Zygomycetes</td>
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<td><em>Rhizopus arrhizus</em></td>
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<td>Mucorales</td>
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<td><em>Rhizopus stolonifer</em></td>
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<td>Bacterium</td>
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</tbody>
</table>

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1 March 2005
Pseudomonas syringae
Pseudomonas syringae pv. syringae
Pseudomonas viridiflava

Rhizobiaceae
Agrobacterium vitis

Virus
Alfalfa mosaic virus -
Arabis mosaic virus -
Carnation mottle virus -
Cherry leaf roll virus [red raspberry strain] -
Cucumber mosaic virus -
Grapevine rupestris stem pitting-associated virus -
Grapevine fanleaf virus [strains in New Zealand] -
Grapevine fleck virus -
Grapevine leafroll-associated virus [type 1] -
Grapevine leafroll-associated virus [type 2] -
Grapevine leafroll-associated virus [type 3] -
Grapevine virus A -
Grapevine virus B [strains in New Zealand] -
Potato virus X -
Raspberry bushy dwarf virus -
Strawberry latent ringspot virus [Prunus-infecting strain] -
Tobacco mosaic virus -
Tobacco necrosis virus -
Tobacco ringspot virus -
Tomato ringspot virus -
Tomato spotted wilt virus -

Viroid
Citrus exocortis viroid -

Disease of unknown aetiology
Grapevine enation -
Grapevine vein mosaic -
Grapevine vein necrosis -
## Inspection, Testing and Treatment Requirements for *Vitis*

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<tr>
<th>ORGANISM TYPES</th>
<th>MAF-ACCEPTED METHODS (See notes below)</th>
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</thead>
<tbody>
<tr>
<td><strong>Insects</strong></td>
<td>Visual inspection AND approved insecticide treatments (Refer to section 2.2.1.5 of the basic conditions) [cuttings only].</td>
</tr>
<tr>
<td><strong>Mites</strong></td>
<td>Visual inspection AND approved miticide treatments (Refer to section 2.2.1.5 of the basic conditions) [cuttings only] or binocular microscope inspection in PEQ [plants in tissue culture only].</td>
</tr>
<tr>
<td><strong>Fungi</strong></td>
<td>Growing season inspection in PEQ for disease symptom expression AND examination using a dissecting microscope or hand lens (longitudinal and transverse sections) AND plating on potato dextrose agar.</td>
</tr>
<tr>
<td><strong>Bacterium</strong></td>
<td></td>
</tr>
<tr>
<td><em>Agrobacterium rubi</em>,</td>
<td>Growing season inspection in PEQ for disease symptom expression AND Hot water treatment (Refer to “Approved Treatments for <em>Vitis</em>”).</td>
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<tr>
<td><em>Xanthomonas campestris</em></td>
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<tr>
<td><em>Xylella fastidiosa</em></td>
<td>Growing season inspection in PEQ for disease symptom expression AND PCR (Two tests; Minsavage <em>et al.</em>, 1994) AND Hot water treatment (Refer to “Approved Treatments for <em>Vitis</em>”).</td>
</tr>
<tr>
<td><strong>Virus</strong></td>
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<tr>
<td><em>Artichoke Italian latent virus</em></td>
<td>Growing season inspection in PEQ for disease symptom expression.</td>
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<tr>
<td><em>Broad bean wilt virus</em></td>
<td>Growing season inspection in PEQ for disease symptom expression.</td>
</tr>
<tr>
<td><em>Cherry leaf roll virus</em> [strains not in New Zealand]</td>
<td>ELISA or PCR AND herbaceous indicators (<em>Chenopodium amaranticolor, Chenopodium quinoa, Cucumis sativus</em> and <em>Nicotiana tabacum</em>).</td>
</tr>
<tr>
<td><em>Grapevine Ajinashika disease virus</em></td>
<td>Growing season inspection in PEQ for disease symptom expression.</td>
</tr>
<tr>
<td><em>Grapevine Algerian latent virus</em></td>
<td>Growing season inspection in PEQ for disease symptom expression.</td>
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<td><em>Grapevine angular mosaic virus</em></td>
<td>Growing season inspection in PEQ for disease symptom expression.</td>
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<tr>
<td><em>Grapevine asteroid mosaic-associated virus</em></td>
<td>Growing season inspection in PEQ for disease symptom expression.</td>
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<td><em>Grapevine berry inner necrosis virus</em></td>
<td>Growing season inspection in PEQ for disease symptom expression.</td>
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<tr>
<td><em>Grapevine Bulgarian latent virus</em></td>
<td>Herbaceous indicators (<em>Chenopodium amaranticolor</em> and <em>C. quinoa</em>).</td>
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<tr>
<td><em>Grapevine chrome mosaic virus</em></td>
<td>PCR AND herbaceous indicators (<em>Chenopodium amaranticolor, Chenopodium quinoa, Cucumis sativus</em> and <em>Nicotiana tabacum</em>).</td>
</tr>
<tr>
<td><em>Grapevine fanleaf virus</em> [strains not in New Zealand]</td>
<td>ELISA or PCR AND woody indicators (Saint George) or herbaceous indicators (<em>Chenopodium amaranticolor, Chenopodium quinoa</em> and <em>Cucumis sativus</em>).</td>
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<tr>
<td><em>Grapevine labile rod-shaped virus</em></td>
<td>Growing season inspection in PEQ for disease symptom expression.</td>
</tr>
<tr>
<td><em>Grapevine leafroll-associated virus</em> [type 4]</td>
<td>ELISA or PCR AND woody indicators (Cabernet Franc, Merlot or Pinot Noir).</td>
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<tr>
<td><em>Grapevine leafroll-associated virus</em> [type 5]</td>
<td>ELISA or PCR AND woody indicators (Cabernet Franc, Merlot or Pinot Noir).</td>
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<td><em>Grapevine leafroll-associated virus</em> [type 6]</td>
<td>Woody indicators (Cabernet Franc, Merlot or Pinot Noir).</td>
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<tr>
<td>Virus/Fungus/Phytoplasma</td>
<td>Testing Method/Hosts</td>
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<tr>
<td><strong>Grapevine leafroll-associated virus [type 7]</strong></td>
<td>PCR AND woody indicators (Cabernet Franc, Merlot or Pinot Noir).</td>
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<tr>
<td><strong>Grapevine leafroll-associated virus [type 9]</strong></td>
<td>Woody indicators (Cabernet Franc, Merlot or Pinot Noir).</td>
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<td><strong>Grapevine line pattern virus</strong></td>
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<td><strong>Grapevine red globe virus</strong></td>
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<td><strong>Grapevine stunt virus</strong></td>
<td>Growing season inspection in PEQ for disease symptom expression.</td>
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<td>Growing season inspection in PEQ for disease symptom expression.</td>
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<td><strong>Grapevine virus B [strains not in New Zealand]</strong></td>
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<td><strong>Grapevine virus C</strong></td>
<td>Growing season inspection in PEQ for disease symptom expression.</td>
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<tr>
<td><strong>Grapevine virus D</strong></td>
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<td>ELISA or PCR AND herbaceous indicators (Chenopodium amaranticolor, Chenopodium quinoa, Cucumis sativus and Nicotiana tabacum).</td>
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<td>ELISA or PCR AND herbaceous indicators (Chenopodium amaranticolor, Chenopodium quinoa, Cucumis sativus and Nicotiana tabacum).</td>
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<td><strong>Sowbane mosaic virus</strong></td>
<td>Herbaceous indicators (Chenopodium amaranticolor and C. quinoa).</td>
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<td>Herbaceous indicators (Chenopodium amaranticolor, Chenopodium quinoa and Cucumis sativus).</td>
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<tr>
<td><strong>Tomato black ring virus</strong></td>
<td>ELISA or PCR AND herbaceous indicators (Chenopodium amaranticolor, Chenopodium quinoa, Cucumis sativus and Nicotiana tabacum).</td>
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<td><strong>Viroids</strong></td>
<td>Growing season inspection in PEQ for disease symptom expression.</td>
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<tr>
<td><strong>Phytoplasmas</strong></td>
<td>Nested PCR using the universal phytoplasma fU5/rU3 (Lorenz et al. 1995) and R16F2n/R16R2 primers (Gundersen et al. 1996) and Hot water treatment (Refer to “Approved Treatments for Vitis”) [cuttings only] OR nested PCR using the universal phytoplasma fU5/rU3 (Lorenz et al. 1995) and R16F2n/R16R2 primers (Gundersen et al. 1996) (two sets) [tissue culture only].</td>
</tr>
<tr>
<td><strong>Disease of unknown aetiology</strong></td>
<td>LN33 stem grooving Woody indicator (LN33).</td>
</tr>
</tbody>
</table>

**Notes:**
1. The unit for testing is an individual plantlet or cutting. Each single plantlet and cutting must be labelled individually and tested separately.
2. Herbaceous indicator hosts: at least two plants of each herbaceous indicator species must be used in each test. Tests are to be carried out using the new season’s growth in the spring. Plants shall be sampled from at least two positions on every stem including a young, fully expanded leaf at the top of each stem and an older leaf from a midway position. Herbaceous indicator plants must be grown under appropriate temperatures and must be shaded for 24 hrs prior to inoculation. Maintain post-inoculated indicator species under appropriate glasshouse conditions for at least 4 weeks. Inspect inoculated indicator plants at least twice per week for symptoms of virus infection.
3. Woody indicators: at least two plants of each woody indicator must be used in each test. All woody indicators are to be inoculated by double budding.

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4. Enzyme linked immunosorbent assay (ELISA) and polymerase chain reaction (PCR) tests for viruses. Tests must be completed at the optimal time for detection. In general, plants shall be sampled from at least two positions including a young, fully expanded leaf at the top of the stem and an older leaf from a midway position.

5. All PCR and ELISA tests must be validated using positive controls prior to use in quarantine testing. Positive and negative controls (including a blank water control for PCR) must be used in all tests. Ideally positive internal controls and a negative plant control should also be used in PCR tests.

6. Inspect *Vitis* plants for signs of pest and disease at least twice per week during periods of active growth and once per week during dormancy.

7. With prior notification, MAF will accept other internationally recognised testing methods.

**References**


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**Approved Treatments for *Vitis***

**Hot Water Treatment**

The consignment must be treated using hot water treatment (dipping), for the eradication of phytoplasmas and fastidious vascular prokaryotic organisms, as follows:

1. Cuttings with good hydration and reserves are stored in a cool room (~ 4°C). Before treatment, the dormant material must be held at room temperature for one day (24 hours).

2. For the treatment, the dormant material must be dipped into the hot water at 50°C for 45 minutes or at 45°C for 3 hours (FAO/IBPGR Technical Guidelines for Safe Movement of Grapevine Germplasm, 1990, Martelli G.P and Walter B. Virus Certification of Grapevines. In - Plant Virus Disease Control, edited by A. Hadidi, RK Khetarpal and H Koganezawa. APS Press 1998). The water bath must have a moving system to homogenize the temperature and a precise control system to monitor the temperature at an accuracy of 0.1°C.

3. After the treatment the cuttings must stay for one day (24 hours) at room temperature. After this period they are transferred to a cool room.
Note: The entry conditions in this schedule only apply to species in the Plants Biosecurity Index listed under Import Specifications for Nursery Stock as “see 155.02.06 under *Yucca*”, and are additional to those specified in sections 1, 2 and 3 of the import health standard.

**GENERAL CONDITIONS:**

**Countries:** All

**Entry Conditions:** Basic; with variations and additional conditions as specified below:

**A. For Cuttings (dormant):**

**PEQ:** Level 2  
**Minimum Period:** 3 months  
**Inspection Requirements:** A minimum of 600 plants are to be inspected during each inspection in post-entry quarantine

**B. For Plants in Tissue Culture:**

As for **Standard Entry Conditions for Tissue Cultures** - see Section 2.2.2.
**Zantedeschia**

**Note:** The entry conditions in this schedule only apply to species in the Plants Biosecurity Index listed under Import Specifications for Nursery Stock as “see 155.02.06 under *Zantedeschia*”, and are additional to those specified in sections 1, 2 and 3 of the import health standard.

1. **Type of Zantedeschia nursery stock approved for entry into New Zealand**
   - Dormant bulbs
   - Plants in tissue culture

2. **Pests of Zantedeschia**
   - Refer to the pest list.

3. **Entry conditions for:**
   3.1 **Zantedeschia dormant bulbs from any country**
      (i) **Documentation**
      - *Phytosanitary certificate:* a completed phytosanitary certificate, issued by the national plant protection organisation (NPPO) of the exporting country, is required.
      - *Import permit:* an import permit is required.

      (ii) **Phytosanitary requirements**
      Before a phytosanitary certificate is issued, the exporting country NPPO must be satisfied that the following activities required by the New Zealand Ministry of Agriculture and Forestry (MAF) have been undertaken.

      The *Zantedeschia* dormant bulbs have been:
      - inspected in accordance with appropriate official procedures and found to be free of any visually detectable regulated pests.
      AND
      - sourced from a “Pest free area”, “Pest free place of production” or “Pest free production site”, free from regulated nematodes and fungi OR treated for regulated nematodes and fungi as described in section 2.2.1.7 of the basic conditions within 7 days prior to freezing, cold-storage or shipment.
      AND
      - sourced from a “Pest free area”, “Pest free place of production” or “Pest free production site”, free from regulated bacteria and viruses.
      AND
      - held in a manner to ensure that infestation/reinfestation does not occur following certification.

      (iii) **Additional declarations to the phytosanitary certificate**
      If satisfied that the pre-shipment activities have been undertaken, the exporting country NPPO must confirm this by recording the treatments applied in the “Disinfestation and/or Disinfection Treatment” section [if applicable], and by providing the following additional declaration to the phytosanitary certificate:

      "The *Zantedeschia* dormant bulbs in this consignment have been:
      - sourced from a “Pest free area”, “Pest free place of production” or “Pest free production site”, free from regulated nematodes and fungi [if applicable].
      AND
sourced from a “Pest free area”, “Pest free place of production” or “Pest free production site”, free from regulated bacteria, phytoplasmas and viruses.”

(iv) **Post-entry quarantine**
PEQ: Level 1
**Quarantine Period:** This is the time required to complete inspections and/or testing to detect regulated pests. Three months is an indicative minimum quarantine period. The quarantine period may be extended if material is slow growing, pests are detected, or treatments/testing are required.

3.2 **Zantedeschia plants in tissue culture from any country**

(i) **Documentation**
**Phytosanitary certificate:** a completed phytosanitary certificate, issued by the national plant protection organisation (NPPO) of the exporting country, is required.

**Import permit:** no import permit is required.

(ii) **Special tissue culture media requirements**
The tissue culture media may contain charcoal.

(iii) **Phytosanitary requirements**
Before a phytosanitary certificate is issued, the exporting country NPPO must be satisfied that the following activities required by the New Zealand Ministry of Agriculture and Forestry (MAF) have been undertaken.
The *Zantedeschia* plants in tissue culture have been:
- inspected in accordance with appropriate official procedures and found to be free of any visually detectable regulated pests.
AND
- derived from parent stock inspected in accordance with appropriate official procedures and found to be free of any visually detectable regulated pests.
AND
- derived from parent stock tested using molecular/serological methods [choose ONE option] and found free of *Impatiens necrotic spot virus*.

(iv) **Additional declarations to the phytosanitary certificate**
If satisfied that the pre-shipment activities have been undertaken, the exporting country NPPO must confirm this by providing the following additional declaration to the phytosanitary certificate:

"The *Zantedeschia* plants in tissue culture have been derived from parent stock:
- inspected in accordance with appropriate official procedures and found to be free of any visually detectable regulated pests
AND
- tested using molecular/serological methods [choose ONE option] and found free of *Impatiens necrotic spot virus.""

(iv) **Post-entry quarantine**
Post-entry quarantine is not required provided that the above measures have been completed overseas. Alternatively the inspection and testing may be completed in post-entry quarantine upon arrival in New Zealand according to the following conditions:
**Phytosanitary certificate:** a completed phytosanitary certificate, issued by the national plant protection organisation (NPPO) of the exporting country, is required.
**Import permit:** an import permit is required.

**PEQ:** Level 3

**Quarantine Period:** This is the time required to complete inspections and/or testing to detect regulated pests. Three months is an indicative minimum quarantine period. The quarantine period may be extended if material is slow growing, pests are detected, or treatments/testing are required.
### Pest List for *Zantedeschia*

#### REGULATED PESTS (actionable)

**Nematode**
- *Secernentea Tylenchida Meloidogynidae*
  - *Meloidogyne arenaria* peanut root knot nematode

**Fungus**
- *Basidiomycota: Basidiomycetes Agaricales Tricholomataceae*
  - *Armillaria mellea* (anamorph *Rhizomorpha subcorticalis*) armillaria root rot

**Oomycota**
- *Pythiales Volutaceae Phaeacystis paradoxa*

**Bacterium**
- *Xanthomonas campestris pv. zantedeschiae*

**Virus**
- *Impatiens necrotic spot virus*
- *Zantedeschia mild mosaic virus*
- *Zantedeschia mosaic virus (syn. Konjac mosaic virus)*

#### NON-REGULATED PESTS (non-actionable)

**Insect**
- *Insecta Coleoptera Curculionidae Asynonychus cervinus* Fuller's rose weevil
- *Hemiptera Coreidae Acantholybas brunneus*
- *Homoptera Aphididae Acyrthosiphon kondoi* bluegreen lucerne aphid
- *Aulacorthum circumflexum* mottled arum aphid
- *Coccidae Coccus hesperidum* brown soft scale
- *Pseudococcidae Pseudococcus calceolariae* citrophilus mealybug
- *Pseudococcus viburni* obscure mealybug
- *Lepidoptera Tineidae Opogona omoscpoa* detritus moth
- *Thysanoptera Thripidae Hercinothrips femoralis* banded greenhouse thrips
- *Thrips obscuratus* New Zealand flower thrips
- *Thrips simplex* gladiolus thrips
- *Thrips tabaci* onion thrips
Mite
Arachnida
Acarina
Acaridae
Rhizoglyphus echinopus bulb mite
Tetranychidae
Tetranychus cinnabarinus carmine spider mite
Tetranychus urticae twospotted spider mite

Nematode
Secernentea
Tylenchida
Meloidogyndae
Meloidogyne incognita southern root knot nematode
Meloidogyne javanica Javanese root knot nematode

Fungus
Ascomycota
Dothideales
Mycosphaerellaceae
Mycosphaerella tassiana (anamorph Cladosporium herbarum) black leaf spot
Erysiphales
Erysiphaceae
Leveillula taurica (anamorph Oidiopsis sicula) powdery mildew
Hypocreales
Hypocreaceae
Bioucetia ochroleuca (anamorph Gliocladium roseum) fusarium rot
Calonectria kyotensis (anamorph Cylindrocladium scoparium) root and stem rot
Gibberella zeae (anamorph Fusarium graminearum) headblight of maize
Nectria haematococca (anamorph Fusarium solani) fusarium fruit rot
Nectria invicta (anamorph Verticillium tenuum) verticillium rot
Nectria radicicola (anamorph Cylindrocarpon destructans) rot
Leotiales
Sclerotiniaceae
Botryotinia fuckeliana (anamorph Botrytis cinerea) grey mould
Saccharomyctaeles
Dipodascaceae
Dipodascus geotrichum (anamorph Geotrichum candidum) sour rot
Xylariales
Xylariaceae
Rosellinia necatrix (anamorph Dematophora necatrix) white root rot
Ceratobasidiales
Ceratobasidaceae
Thanatephorus cucumeris (anamorph Rhizoctonia solani) rhizoctonia rot
Stereales
Atheliaceae
Athelia rolfsii (anamorph Sclerotium rolfsii) Rolf's disease
Oomycota
Pythiales
Pythiaceae
Phytophthora erythroseptica pink rot
Pythium coloratum pythium root rot
Phytophthora meadii phytophthora rot
Pythium myriotylum rhizome and root rot
Zygomycota: Zygomycetes
Mucorales
Mucoraceae
Rhizopus stolonifer rhizopus soft rot
mitosporic fungi (Coelomycetes)
Sphaeropsidales
Sphaerioidaceae
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Phoma exigua
Pyrenochaeta terrestris

mitosporic fungi (Hyphomycetes)

**Hyphomycetales**

**Dematiaceae**

- Alternaria alternata
- Drechslera dematioidea
- Thielaviopsis basicola

**Moniliaceae**

- Verticillium tricorpus

**Tuberculariaceae**

- Fusarium crookwellense
- Fusarium oxysporum

**Tuberculariales**

**Bacterium**

- Enterobacteriaceae
  - Erwinia carotovora subsp. carotovora
- Pseudomonadaceae
  - Pseudomonas fluorescens
  - Pseudomonas syringae pv. syringae

**Virus**

- Alfalfa mosaic virus
- Arabis mosaic virus
- Carnation mottle virus
- Cucumber mosaic virus
- Dasheen mosaic virus
- Potato virus X
- Tomato spotted wilt virus
- Turnip mosaic virus
**Zingiber**

**Note:** The entry conditions in this schedule only apply to species in the Plants Biosecurity Index listed under Import Specifications for Nursery Stock as “see 155.02.06 under *Zingiber*”, and are additional to those specified in sections 1, 2 and 3 of the import health standard.

**GENERAL CONDITIONS:**

**Countries:** All

**Quarantine Pests:** *Helicobasidium mompa*; Virus diseases

**Entry Conditions:** Basic; with variations and additional conditions as specified below:

A. **For Whole Plants:**
   
   **PEQ:** Level 2  
   **Minimum Period:** 6 months

B. **For Dormant Bulbs:**
   
   **PEQ:** Level 1  
   **Minimum Period:** 3 months  
   **Additional Declaration(s):**
   
   "The dormant bulbs in this consignment have been:
   - derived from a crop which was inspected during the growing season according to appropriate procedures and found to be free of regulated pests.
   AND
   - treated for regulated insects as described in section 2.2.1.7 of the basic conditions within 7 days prior to freezing, cold-storage or shipment.
   AND
   - sourced from a “Pest free area” or “Pest free place of production”, free from *Helicobasidium mompa* OR treated for regulated nematodes and fungi as described in section 2.2.1.7 of the basic conditions within 7 days prior to freezing, cold-storage or shipment."

C. **For Tissue Cultures:**
   
   As for Standard Entry Conditions for Tissue Cultures - see Section 2.2.2.  
   **PLUS:**
   **Additional Declaration:**
   "The cultures have been derived from parent stock tested and found free of virus diseases."