



MINISTRY FOR PRIMARY INDUSTRIES

STANDARD 155.02.06

Importation of Nursery Stock

Issued as an import health standard pursuant to section 24A of the Biosecurity Act 1993

Regulation & Assurance
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ENDORSEMENT

This Ministry for Primary Industries standard is hereby approved. Pursuant to section 24A of the Biosecurity Act 1993, I hereby issue this document as an import health standard.

Signature of Manager, Import & Export Plants
Acting pursuant to delegated Director-General authority

Date: 10 December 2015

REVIEW

This standard is subject to periodic review. Amendments will be made to the signed original as required. The signed original will be held by the Plant Imports and Exports Group, Ministry for Primary Industries, Pastoral House, 25 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 are included below.

No:	Details:	Date:
1	Section 2.2.1.7 <i>Pesticide treatments for dormant bulbs</i>	27 April 2005
2	<i>Lilium</i> schedule of special conditions, sections 2.2.1.6, 2.2.1.7 and 2.2.2.	17 June 2005
3	<i>Ficus</i> schedule	6 September 2005
4	<i>Acacia, Acer, Allium, Canna, Cotoneaster, Cycas, Hippeastrum, Hydrangea, Iris, and Lilium</i> schedules	6 October 2005
5	<i>Acacia, Acer, Begonia, Canna, Cotoneaster</i> and <i>Hydrangea</i> schedules, section 2.2.1.7	8 February 2006
6	<i>Acer, Aesculus, Arbutus, Acacia, Calladium, Camellia, Castanea, Gaultheria, Fagus, Kalmia, Photinia, Prunus, Vaccinium</i> schedules, section 2.2.1.10, section 2.2.1.11	22 May 2006
7	<i>Actinidia, Hippeastrum</i> and <i>Prunus</i> schedules	9 August 2006
8	<i>Allium, Fragaria, Hippeastrum, Miscanthus, Solanum tuberosum, and Zantedeschia</i> schedules.	4 August 2008
9	<i>Corylus</i> and <i>Wollemia nobilis</i> schedules.	10 November 2008
10	<i>Allium, Persea, Rubus, Vaccinium, and Vaccinium macrocarpon</i> schedules.	7 April 2009
11	Sections 1.4, 2.2.1.8, 2.2.1.9, 2.2.1.11, 2.2.3, and 3	1 October 2009
12	Section 2.2.1.11	20 October 2009
13	<i>Tulipa</i> schedule	18 January 2010
14	<i>Prunus, Solanum tuberosum, and Vaccinium macrocarpon</i> schedules.	6 July 2010
15	<i>Allium</i> schedule	13 September 2010
16	<i>Berberis, Carpinus, Cotoneaster, Eucalyptus, Nandina, Olea, Populus, Pseudotsuga, Ulmus</i> schedules, section 2.2.1.10 and section 2.2.1.11	7 June 2011
17	<i>Phalaenopsis</i> schedule	8 August 2011
18	Removal of the schedules for <i>Acca sellowiana</i> and <i>Agonis</i> , with incorporation under the <i>Metrosideros</i> schedule. Amendment to the <i>Eucalyptus</i> and <i>Eugenia</i> schedules.	25 August 2011
19	<i>Dracaena</i> schedule	12 September 2011
20	<i>Malus</i> schedule	20 June 2012

21	<i>Artocarpus</i> schedule	29 June 2012
22	<i>Cycas</i> , <i>Dracaena</i> , <i>Fuchsia</i> schedules, section 2.2.1.10, 2.2.1.11, 2.2.3 and 2.3.3	16 August 2012
23	<i>Solanum tuberosum</i> schedule	8 April 2013
24	<i>Eucalyptus</i> , <i>Eugenia</i> , <i>Metrosideros</i> and <i>Vitis</i> schedules	22 May 2013
25	<i>Actinidia</i> schedule	6 September 2013
26	Section 2.2.2.2	27 January 2014
27	<i>Vitis</i> schedule	11 March 2014
28	<i>Rubus</i> schedule	21 March 2014
29	Section 2.3.2.1, section 2.2.1.11, schedules for <i>Allium</i> , <i>Begonia</i> , <i>Canna</i> , <i>Citrus</i> , <i>Crocus</i> , <i>Dahlia</i> , <i>Fortunella</i> , <i>Fragaria</i> , <i>Gladiolus</i> , <i>Hippeastrum</i> , <i>Lilium</i> , <i>Malus</i> , <i>Miscanthus x giganteus</i> , <i>Narcissus</i> , <i>Olea</i> , <i>Persea</i> , <i>Poncirus</i> , <i>Prunus</i> , <i>Rubus</i> , <i>Solanum tuberosum</i> , <i>Tulipa</i> , <i>Vaccinium</i> , <i>Vaccinium macrocarpon</i> and <i>Vitis</i>	11 June 2014
30	Schedules for <i>Chrysanthemum</i> , <i>Diascia</i> , <i>Dahlia</i> and <i>Solanum</i>	18 August 2014
31	Schedules for <i>Citrus</i> , <i>Fortunella</i> , <i>Fragaria</i> , <i>Malus</i> and <i>Poncirus</i>	27 November 2014
32	Schedules for <i>Hippeastrum</i> and <i>Vitis</i>	21 January 2015
33	New section for <i>Ceratocystis fimbriata</i> (section 2.2.1.8), renumbering of subsequent sections, new schedule for <i>Platanus</i> for <i>C. platani</i> , sections 2.2.1.6 and 2.2.1.7, schedules for <i>Acacia</i> , <i>Acrocomia</i> , <i>Carica</i> , <i>Carya</i> , <i>Carya ovata</i> , <i>Citrus</i> , <i>Delphinium</i> , <i>Eucalpytus</i> , <i>Fagus</i> , <i>Fagus sylvatica</i> , <i>Ficus</i> , <i>Fragaria</i> , <i>Juglans</i> , <i>Malus</i> , <i>Mangifera</i> , <i>Metrosideros</i> , <i>Populus</i> , <i>Prunus</i> , <i>Quercus</i> , <i>Rubus</i> , <i>Tulipa</i> , <i>Ulmus</i> , <i>Vaccinium</i> and <i>Vitis</i>	10 December 2015

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 for Primary Industries. All communication pertaining to this import health standard should be addressed to:

Ministry for Primary Industries
PO Box 2526
25 The Terrace
Wellington
NEW ZEALAND

Telephone: +64 4 894 5514
Fax: +64 4 894 0662
E-mail: plantimports@mpi.govt.nz
Website: <http://www.biosecurity.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
- Hazardous Substances and New Organisms Act 1996 (HSNO Act 1996)
- Biosecurity New Zealand Standard PBC-NZ-TRA-PQCON: Specification for the Registration of a Plant Quarantine or Containment Facility, and Operator
<http://www.biosecurity.govt.nz/files/regs/stds/psc-nz-tra-pqcon.pdf>
- Biosecurity New Zealand Standard PIT-OS-TRA-ACPQF: Accreditation of Offshore Plant Quarantine Facilities and Operators
<http://www.biosecurity.govt.nz/border/transitional-facilities/plants/pit-os-tra-acpqf.htm>
- Biosecurity New Zealand Standard 155.04.03: Specification for the Registration of a Plant Pest Diagnostic Laboratory, and Operator
<http://www.biosecurity.govt.nz/border/transitional-facilities/plants/155-04-03.htm>
- Glossary of phytosanitary terms, 2006. ISPM No 5, FAO, Rome
- Requirements for the establishment of pest free places of production and pest free production sites, 1999. ISPM No 10, FAO, Rome
- Guidelines for phytosanitary certificates, 2001. ISPM No 12, FAO, Rome
- Guidelines for a phytosanitary import regulatory system, 2004. ISPM No 20, FAO, Rome
- Guidelines for the determination and recognition of equivalence of phytosanitary measures, 2005. ISPM No 24, FAO, Rome
- Diagnostic protocols for regulated pests, 2006. ISPM No 27, FAO, Rome

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 propagation material from the stem only (no roots). Cuttings may be required to be dormant.

Dormant: Temporarily inactive/suspended growth (cuttings of deciduous species should have no leaves; bulbs should have no leaves or roots).

Environmental Protection Authority (EPA): 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 the Ministry for Primary Industries).

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 (L1), Level 2 (L2) or Level 3 (L3) 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 MPI (see Standard PBC-NZ-TRA-PQCON: Specification for the Registration of a Plant Quarantine or Containment Facility, and Operator

Lot: A number of units of a single commodity identifiable by its homogeneity of composition, origin etc., forming part of a consignment. [FAO, 1990].

MPI: The Ministry for Primary Industries, formerly the Ministry of Agriculture and Forestry (MAF).

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 Organization (National)].

Non-dormant: Normal state of plant growth, not in suspended growth.

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, rhizomes, and plants *in vitro*.

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]

Note: For the purpose of this standard "pest" includes an organism sometimes associated with the pathway, which poses a risk to human or animal or plant life or health (SPS Article 2).

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]

Phytosanitary Certificate: Certificate patterned after the model certificates of the IPPC [FAO, 1990]. The certificate must follow the pattern set out in the model phytosanitary certificate, ISPM Pub. No. 12, 2001, "Guidelines for phytosanitary certificate".

The certificate is issued by the exporting country's NPPO, in accordance with the requirements

of the IPPC, to verify that the requirements of the relevant import health standard have been met.

Plants Biosecurity Index (PBI): A database of plant species that have been approved by EPA and may be imported provided they meet certain conditions. The PBI can be found at the following web address: <http://www1.maf.govt.nz/cgi-bin/bioindex/bioindex.pl>

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 MPI'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 Protection Authority (EPA) at the following address:

Environmental Protection Authority
PO Box 131
Wellington 6140
NEW ZEALAND

Phone: +64 4 916 2426
Fax : +64 4 914 0433
E-mail: info@epa.govt.nz
Website: <http://www.epa.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 EPA. If EPA approves an application, MPI will undertake a pest risk analysis and develop an import health standard 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 MPI at the address given below.

The Ministry for Primary Industries can also be contacted for information on permit application procedures and import health standards. Address for the Plant Imports Team:

Plant Imports
Ministry for Primary Industries
P.O. Box 2526
Wellington 6140
NEW ZEALAND

Telephone: +64 4 894 0862
Fax: +64 4 894 0662
E-mail: plantimports@mpi.govt.nz
Website: <http://www.biosecurity.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. To confirm whether a specific species requires a CITES import permit, please contact the Department of Conservation (<http://www.doc.govt.nz>).

1.7 EQUIVALENCE

It is expected that the product will meet the conditions of this import health standard in every respect. If the product does not comply with the requirements, an application for equivalence may be submitted to MPI for consideration prior to importation. This must explain the reason(s) why the consignment may be considered of equivalent phytosanitary status to this import health standard, and what proposal is made to achieve an equivalent phytosanitary status.

2. IMPORT SPECIFICATION AND ENTRY CONDITIONS

2.1 INSPECTION ON ARRIVAL AND MAXIMUM PEST LIMIT

A randomly drawn sample of 600 units, from each homogenous lot within in a consignment, shall be inspected on arrival. Where a lot is comprised of less than 600 units, 100% inspection is required.

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 a 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

All imported nursery stock must comply with the following requirements:

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.

AND

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**.

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 for Permit to Import Nursery Stock" available from the Permit Office or on MPI's website:

<http://www.biosecurity.govt.nz/forms/imports-plants-ai-ns>

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 MPI's "Biosecurity Organisms Register for Imported Commodities":

<http://www.maf.govt.nz/biosecurity/pests-diseases/registers-lists/boric/>

If a visually detectable pest is not listed in this register, the certifying NPPO must contact MPI (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, unless stated otherwise in the “schedule of special conditions”:

"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/m³) and temperature (°C):

Rate (g/m³)	Temperature (°C)
48	10 – 15
40	16 – 20
32	21 – 27
28	28 – 32

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.

Chemical group	Active ingredient	Dip time	Notes
Carbamate	Carbaryl	2-5 mins	
Diacylhydrazine	Tebufozide	2-5 mins	
Neonicotinoid	Imidacloprid (0.16 g per litre of dip/spray)	2-5 mins	Non-dormant material only
Neonicotinoid	Thiacloprid (0.16 g per litre of dip/spray)	2-5 mins	Non-dormant material only
Organophosphorous	Acephate (0.75 g per litre of dip/spray)	2-5 mins	Non-dormant material only
Organophosphorous	Chlorpyrifos (0.8 g per litre of dip/spray)	2-5 mins	Non-ionic surfactant required for dipping
Organophosphorous	Dimethoate	2-5 mins	Non-dormant material only
Organophosphorous	Pirimiphos-methyl (0.475 g per litre of dip/spray)	2-5 mins	Non-ionic surfactant required for dipping
Pyrethroid	Deltamethrin	15 mins	
Pyrethroid	Fenvalerate	15 mins	
Spinosyns	Spinosad	2-5 mins	Dip/spray at room temperature

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 ($^{\circ}\text{C}$) 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.

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

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 four 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 ($^{\circ}\text{C}$):

Rate (g/m^3)	Temperature ($^{\circ}\text{C}$)
48	10 – 15
40	16 – 20
32	21 – 27
28	28 – 32

OR

(2) Actellic room fumigation: 10 cc Actellic/10m³ of room capacity for 12 hours at 20 $^{\circ}\text{C}$ or higher. The first treatment should take place within 14 days after harvesting. Repeat the treatment two more times within an interval of 4 weeks.

OR

(3) Hot water treatment/chemical treatment: immersion in hot water at a constant temperature of 24 $^{\circ}\text{C}$ for 2 hours, followed by immersion in hot water at a constant temperature of 45 $^{\circ}\text{C}$ for 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) 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

(4) 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.

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

Mites

One of the following four treatments is required:

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

OR

(2) Actellic room fumigation: 10 cc Actellic/10m³ of room capacity for 12 hours at 20 $^{\circ}\text{C}$ or higher. The first treatment should take place within 14 days after harvesting. Repeat the treatment two more times within an interval of 4 weeks.

OR

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

OR

(4) 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.

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

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 ($^{\circ}\text{C}$) prescribed for insects above;

OR Hot water treatment: immersion in hot water at a constant temperature of 24 $^{\circ}\text{C}$ for 2 hours, followed by immersion in hot water at a constant temperature of 45 $^{\circ}\text{C}$ 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.

Active ingredient	Dip time	Notes
Bromo-chloro-dimethylhydantoin (8.1-16 g per litre of dip)	5 mins	
Formaldehyde (0.4%)	2 hours	Dip at room temperature
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: 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.

Chemical group	Active ingredient	Dip time	Notes
Benzimidazole	Thiabendazole (1-1.3 g per litre of dip)	15-30 mins	Dip at room temperature Wetting agent required
Benzimidazole	Thiophanate-methyl (0.75 g per litre of dip)	15-30 mins	Dip at 27-29.5°C
Dimethyldithio-carbamate	Thiram (11.2 g per litre of dip)	-	Dip at room temperature
Imidazole	Prochloraz (0.25 g per litre of dip)	15 mins	Dip at room temperature
Strobilurin	Azoxystrobin (0.95 g per litre of dip)	15 mins	Dip at room temperature

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 *Ceratocystis fimbriata sensu lato* complex (strains not in New Zealand)

Note: The only known strain of *C. fimbriata* present in New Zealand is the *Ipomoea* strain, which is restricted to members of the *Ipomoea* genus.

All species of nursery stock (cuttings, whole plants, dormant bulbs and tubers) of the following genera must meet the requirements for *Ceratocystis fimbriata sensu lato* complex (strains not in New Zealand) identified in this section:

- *Acacia*
- *Actinidia*
- *Alocasia*
- *Ananas*
- *Annona*
- *Betula*
- *Carya*
- *Cassia*
- *Celtis*
- *Citrus*
- *Colocasia*
- *Corymbia*
- *Eriobotrya*
- *Erythrina*
- *Eucalyptus*
- *Fagus*
- *Ficus carica*
- *Inga*
- *Juglans*
- *Mangifera*
- *Metrosideros*
- *Metroxylon*
- *Ostrya*
- *Passiflora*
- *Pimenta*
- *Populus*
- *Protea*
- *Prunus*
- *Punica*
- *Quercus*
- *Shizolobium*
- *Schotia*
- *Spathodea*
- *Styrax*
- *Syngonium*
- *Tilia*
- *Ulmus*
- *Xanthosoma*

i) For countries recognized by MPI as free from *Ceratocystis fimbriata sensu lato* complex (strains not in New Zealand)

The following Additional Declaration shall be endorsed on the phytosanitary certificate:
“The plants have been sourced from a country free from *Ceratocystis fimbriata sensu lato* complex (strains not in New Zealand)”

Note: Countries where *Ceratocystis fimbriata sensu lato* complex is known to be present:

Australia, Brazil, Canada, China, Colombia, Congo, Costa Rica, Côte d'Ivoire, Cuba, Ecuador, Fiji, Guatemala, India, Indonesia, Jamaica, Japan, Kenya, Malawi, Malaysia, Mexico, Myanmar, Oman, Pakistan, Papua New Guinea, Poland, South Africa, Suriname, Taiwan, Tanzania, Thailand, Uganda, United States, Uruguay, Venezuela, Vietnam, Western Samoa, Zambia.

ii) For all other countries

The phytosanitary certificate must have the following additional declaration:
“The plants have been sourced from a state/province free from *Ceratocystis fimbriata sensu lato* complex (strains not in New Zealand) or from a Pest Free Place of Production free from *Ceratocystis fimbriata sensu lato* complex (strains not in New Zealand)”

AND

The plants must be tested for *Ceratocystis fimbriata sensu lato* complex (strains not in New Zealand) during the post entry quarantine period, at an MPI approved diagnostic facility.

iii) For nursery stock sourced from MPI approved offshore facilities

Specific measures are detailed in the agreement between MPI and the approved facility, or the plants must be tested for the *C. fimbriata sensu lato* complex (strains not in New Zealand) during the post entry quarantine period, at an MPI approved diagnostic facility.

2.2.1.9 Measures for *Helicobasidium mompa*

ALL species of nursery stock (whole plants, cuttings, and dormant bulbs) from the listed countries must meet the requirements of this section, unless stated otherwise in the “schedule of special conditions”.

A. For nursery stock from the following countries:

Afghanistan	Iraq	Nepal	Sri Lanka
Armenia	Israel	Oman	Syria
Bangladesh	Jordan	Pakistan	Turkey
Bhutan	Kuwait	Philippines	United Arab Emirates
Brunei	Laos	Saudi Arabia	Vietnam
Cambodia	Lebanon	Singapore	Yemen
Iran	Myanmar		

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	Kazakstan	Russia	Turkmenistan
China	Kyrgyzstan	South Africa	Uganda
Georgia	Malawi	South Korea	Uzbekistan
India	Malaysia	Taiwan	
Indonesia	Mongolia	Tajikistan	
Japan	North Korea	Thailand	

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.

Active ingredient	Dip time	Notes
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.

Chemical group	Active ingredient	Dip time	Notes
Anilinopyrimidine	Pyrimethanil	15 mins	Dip at room temperature
Benzimidole	Carbendazim (1 g per litre of dip/spray)	20 mins	
Benzimidole	Thiophanate-methyl	10-15 mins	
Chloronitrile	Chlorothalonil	15 mins	Dip at room temperature
Dicarboximide	Iprodione (2 g per litre of dip/spray)	30 mins	
Dimethyldithio-carbamate	Thiram (11.2 g per litre of dip)	-	Dip at room temperature
Phenylurea	Pencycuron	15 mins	
Phosphonate	Fosetyl-aluminium	15 mins	Dip at room temperature
Strobilurin	Azoxystrobin (0.95 g per litre of dip)	15 mins	Dip at room temperature
Triazole	Propiconazole (0.5 g per litre of dip)	5 mins	

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.

2.2.1.10 Measures for *Phymatotrichopsis omnivora*

ALL species of whole plants from the listed countries must meet the requirements of this section.

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*".

2.2.1.11 Measures for *Phytophthora ramorum*

All nursery stock imported under the schedules listed below, as well as the additional listed genera and/or species/cultivars, are potential hosts of Phytophthora ramorum and must meet the requirements specified in this section.

All species imported under the following schedules must meet the requirements for Phytophthora ramorum identified in this section:

- *Abies*
- *Acer*
- *Aesculus*
- *Arbutus*
- *Berberis*
- *Carpinus*
- *Castanea*
- *Corylus*
- *Cotoneaster*
- *Eucalyptus*
- *Fagus*
- *Fuchsia*
- *Gaultheria*
- *Kalmia*
- *Lithocarpus*
- *Olea*
- *Photinia*
- *Populus*
- *Prunus*
- *Pseudotsuga*
- *Quercus*
- *Rhododendron*
- *Rubus*
- *Salix*
- *Ulmus*
- *Vaccinium*
- *Viburnum*

All species of the following genera must meet the requirements for Phytophthora ramorum identified in this section:

- *Alnus*
- *Annona*
- *Betula*
- *Buddleja*
- *Celtis*
- *Cercis*
- *Ceratonia*
- *Chamaecyparis*
- *Chimaphila*
- *Choisya*
- *Cistus*
- *Citrus*
- *Clematis*
- *Cornus*
- *Corylopsis*
- *Distylium*
- *Empetrum*
- *Erica*
- *Garrya*
- *Gevuina*
- *Grevillea*
- *Ilex*
- *Hedera*
- *Hydrangea*
- *Larix*
- *Liriodendron*
- *Loropetalum*
- *Mahonia*
- *Malus*
- *Manglietia*
- *Nerium*
- *Picea*
- *Pistacia*
- *Ribes*
- *Robinia*
- *Rosa* cultivar Pink Meidiland
- *Rosa* cultivar Pink Sevillana
- *Rosa* cultivar Royal Bonica
- *Rosa* *gymnocarpa*
- *Rosa* *rugosa*
- *Rosa* *sempervirens*
- *Sambucus*
- *Tilia*
- *Zenobia*
- *Tsuga*

i) For countries recognised by MPI as free of *P. ramorum*

The following Additional Declaration shall be endorsed on the phytosanitary certificate:
“The plants have been sourced from a “Pest free area”, free from *Phytophthora ramorum*”

Note: The following countries are presently recognised by MPI as free of
Phytophthora ramorum:
Australia, Israel, Japan, and South Africa.

ii) For countries with MPI approved programs (see below)

The following Additional Declaration shall be endorsed on the phytosanitary certificate:
“The plants have been sourced from a NZ MPI approved Pest Free Place of Production for *Phytophthora ramorum*”

Note: No countries presently have MPI approved Pest Free Place of Production programmes for *Phytophthora ramorum*.

Countries wishing to export *P. ramorum* host material to New Zealand under option ii are required to develop a *P. ramorum* pest free place of production program and present it to MPI for evaluation. Prior to accepting a program MPI Plant Imports will evaluate whether they meet the criteria below:

- systems to establish and maintain pest freedom;
- systems to establish and maintain an appropriate buffer zone (as defined by ISPM 10);
- verification that pest freedom has been attained or maintained. This must include laboratory testing of propagative material, water, soil or other growing media, and other material coming into contact with propagative material; and
- product identity, consignment integrity and phytosanitary security.

iii) For nursery stock sourced from MPI approved offshore facilities

Specific measures are detailed in the agreement between MPI and the approved facility.

2.2.1.12 Measures for *Xylella fastidiosa*

All species imported under the following schedules must meet the requirements for *Xylella fastidiosa* identified in this section:

- | | | |
|--------------------|--------------------|------------------|
| • <i>Acer</i> | • <i>Eugenia</i> | • <i>Prunus</i> |
| • <i>Aesculus</i> | • <i>Fuchsia</i> | • <i>Quercus</i> |
| • <i>Acacia</i> | • <i>Hydrangea</i> | • <i>Rubus</i> |
| • <i>Canna</i> | • <i>Juglans</i> | • <i>Salix</i> |
| • <i>Castanea</i> | • <i>Nandina</i> | • <i>Ulmus</i> |
| • <i>Citrus</i> | • <i>Persea</i> | • <i>Vitis</i> |
| • <i>Diospyros</i> | • <i>Populus</i> | |

All of the following species must meet the requirements for *Xylella fastidiosa* identified in this section:

- *Carya illinoensis*
- *Catharanthus roseus*
- *Cercis occidentalis*
- *Crepis capillaris*
- *Ficus carica*
- *Fragaria vesca*
- *Ginkgo biloba*
- *Hemerocallis spp.*
- *Jacaranda mimosaeifolia*
- *Juniperus ashei*
- *Koelreuteria paniculata*
- *Lagerstroemia indica*
- *Liquidambar styraciflua*
- *Magnolia grandiflora*
- *Myrica cerifera*
- *Photinia arbutifolia*
- *Olea europaea*

i) For countries recognized by MPI as free from *Xylella fastidiosa*

The following Additional Declaration shall be endorsed on the phytosanitary certificate:
 “The plants have been sourced from a country free from *Xylella fastidiosa*”

Note: Countries where *Xylella fastidiosa* is known to be present:
 Argentina, Belize, Brazil, Canada, the Caribbean Islands, Costa Rica, El Salvador, Guatemala, Honduras, Italy, Mexico, Nicaragua, Panama, Paraguay, Peru, Taiwan, Turkey, United States of America, Venezuela and Yugoslavia

ii) For all other countries

Additional Declaration:

“The plants have been sourced from a state/province free or Pest Free Place of Production from *Xylella fastidiosa*”

AND

The plants must be tested for *Xylella fastidiosa* during the Post Entry Quarantine period, at an MPI approved diagnostic facility.

iii) For nursery stock sourced from MPI approved offshore facilities

Specific measures are detailed in the agreement between MPI and the approved facility.

2.2.1.13 Post-Entry Quarantine

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 MPI Inspector has full authority to determine when the plant material may receive biosecurity clearance.

A list of MPI-accredited post entry quarantine facilities is available on MPI’s website:
<http://www.biosecurity.govt.nz/regs/imports/plants/post-entry>

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 vessel (rigid container, bag or pottle) must be pest proof and transparent. The tissue culture medium 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 following additional declaration must be identified upon the phytosanitary certificate:

"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

The schedule of special conditions must list pollen as an approved commodity type for importation to occur under this section

An import permit must be obtained from MPI prior to import.

Prior to issuing the permit to import, MPI will assess, on a case by case basis, the requirements that must be met to import the pollen. All import requirements will be detailed on the permit to import.

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, MPI reserves the right to validate all measures that are undertaken overseas. This includes measures undertaken by national plant protection organisations, MPI-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 MPI. All testing and treatment in New Zealand must be completed in MPI-accredited facilities, accredited to 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.

2.3.2.1 Pre-determined testing

The schedule of special entry conditions identifies when pre-determined testing is required for plant material being held in post entry quarantine. For material which requires pre-determined testing, the unit for testing is defined as follows:

The unit for testing is an individual imported plantlet (imported *in vitro*) or cutting. Each plantlet or cutting must be labelled individually and tested separately, with the following exceptions:

Polymerase chain reaction (PCR)

Samples taken from up to five plants being grown in post entry quarantine can be combined to form a single composite sample for pre-determined testing by PCR, provided that the plants are derived from:

- (i) A single imported plantlet or cutting; or
- (ii) Multiple plantlets or cuttings derived from the same offshore mother plant; or
- (iii) Different mother plants of the same species.

Enzyme-linked immunosorbent assay (ELISA)

Samples taken from up to five plants being grown in post entry quarantine can be combined to form a single composite sample for pre-determined testing by ELISA, provided that the plants are derived from:

- (i) A single imported plantlet or cutting; or
- (ii) Multiple plantlets or cuttings derived from the same mother plant, where the phytosanitary certificate is endorsed with an additional declaration certifying that the plantlets/cuttings have been derived from the same mother plant.

Graft (woody) indexing

Where prior permission is received from MPI, samples taken from up to five plants being grown in post entry quarantine can be combined to form a single composite sample for pre-determined testing by graft indexing, provided that the plants are derived from:

- (i) A single imported plantlet or cutting; or
- (ii) Multiple plantlets or cuttings derived from the same mother plant, where the phytosanitary certificate is endorsed with an additional declaration certifying that the plantlets/cuttings have been derived from the same mother plant.

2.3.3 BIOSECURITY CLEARANCE

A biosecurity clearance, under section 26 of the Biosecurity Act, may be given when the nursery stock meets the requirements of this standard. There are other restrictions in section 27 and 28 of the Biosecurity Act on the giving of biosecurity clearances i.e. compliance with an import health standard or import permit does not guarantee biosecurity clearance will be given. As per Section 27 of the Biosecurity Act, biosecurity clearance will not be given if an inspector considers that the nursery stock is infected, or is showing signs of being infected, with organisms that may be unwanted organisms, or the inspector considers there has been a change in circumstances, or in the state of knowledge, that makes it unwise to give biosecurity clearance.

For nursery stock imported under an import permit, should there be a change in circumstances or the state of knowledge, the import permit will be amended to identify the requirements that must be met before the consignment will be eligible for biosecurity clearance. This may include, but is not limited to, a change in the pest host status of the nursery stock, a change in the distribution or virulence of a pest, or the availability of a new or improved test method.

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 MPI-accredited (registered) facilities overseas under predetermined conditions, with a reduced PEQ requirement following arrival in New Zealand. Overseas facilities must be accredited by MPI according to the Standard PIT-OS-TRA-ACPQF: Accreditation of Offshore Plant Quarantine Facilities and Operators. A list of MPI-accredited offshore facilities is available on MPI's website:

<http://www.biosecurity.govt.nz/regs/imports/plants/off-shore>

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 MPI’s website:

<http://www1.maf.govt.nz/cgi-bin/bioindex/bioindex.pl>

The information provided within the website 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.

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:

Approved 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

- a. Conditions for *Phytophthora ramorum* (section 2.2.1.11)

B. For Tissue Cultures:

As for **Standard Entry Conditions for Tissue Cultures** - see Section 2.2.2, but subject to examination at a MPI-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:

Approved Countries: All

Quarantine Pests: *Ceratocystis fimbriata*, *Xylella fastidiosa*

Entry Conditions:

Basic; with variations and additional conditions as specified below:

A. For Cuttings and Whole Plants

PEQ: Level 2

Minimum Period: 3 months

a. Conditions for *Ceratocystis fimbriata* (section 2.2.1.8)

Note: Only applies to members of the *Acacia* and *Passiflora* genera

b. Conditions for *Xylella fastidiosa* (section 2.2.1.12)

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 *Acer*”, and are additional to those specified in sections 1, 2 and 3 of the import health standard.

GENERAL CONDITIONS:

Approved Countries: All

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

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

A. For Cuttings and Whole Plants

PEQ: Level 2

Minimum Period: 3 months

- a. Conditions for *Phytophthora ramorum* (section 2.2.1.11), and
- b. Conditions for *Xylella fastidiosa* (section 2.2.1.12), and
- c. Conditions for *Cryphonectria parasitica*

Additional Declaration: “*Cryphonectria parasitica* is not known to occur in _____ (the country or state where the plants/cuttings were produced) ”.

OR

PEQ: Level 3

Minimum Period: 6 months

B. For Plants in Tissue Culture from All Countries:

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

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:

Approved Countries: Australia, Hawaii, mainland USA

Quarantine Pests: *Ceratocystis fimbriata*, 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

- a. Conditions for *Ceratocystis fimbriata* (section 2.2.1.8)
Note: Only applies to members of the *Metroxylon* genus

- b. **Additional Declaration:**

"Cadang cadang and lethal yellowing are not known to occur in _____ (the country or state where the plants were grown) _____".

Actinidia

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*”.

The schedule of special entry conditions for *Actinidia* nursery stock has been suspended dated 6 September 2013. This means that *Actinidia* nursery stock is not eligible for import into New Zealand, including into post entry quarantine.

The MPI Chief Technical Officer believes, on reasonable grounds, that knowledge has changed in such a way that the requirements in the import health standard 155.02.06: Importation of Nursery Stock, regarding *Actinidia* spp. nursery stock, no longer enable the purposes of the Biosecurity Act 1993 (Part 3) to be achieved.

MPI is undertaking an Import Risk Analysis and review of the import requirements for *Actinidia* nursery stock. The schedule of special entry conditions for *Actinidia* nursery stock will be reinstated at such time as the MPI Chief Technical Officer believes on reasonable grounds that the reviewed import health standard will enable the purposes the Biosecurity Act 1993 (Part 3) to be achieved.

Questions related to this suspended schedule should be directed to:

Plant Imports Team
Ministry for Primary Industries
PO Box 2526
Wellington
NEW ZEALAND
plantimports@mpi.govt.nz

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:

Approved 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

- a. **Additional Declarations:** "*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".

- b. "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.

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:

Approved 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

PEQ: Level 2

Minimum Period: 3 months

- a. Conditions for *Phytophthora ramorum* (section 2.2.1.11)
- b. Conditions for *Xylella fastidiosa* (section 2.2.1.12)

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 *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 for Primary Industries (MPI) 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” (country freedom), 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

- 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

- sourced from a “pest free area” (country freedom) free from the organisms listed below:

- **Phytoplasmas:**

- Aster yellows phytoplasma, Garlic decline phytoplasma, and Onion yellows phytoplasma.

- **Viruses:**

- Garlic dwarf virus, Garlic mite-borne latent virus, Garlic virus X, Onion mite-borne latent virus, Shallot yellow stripe virus, Sint-Jan's onion latent virus and Tobacco rattle virus.*

- **Bacteria:**

- Erwinia chrysanthemi* pv. *Chrysanthemi*, *Burkholderia cepacia*, and *Pseudomonas xanthochlora*.

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 endorsing the following additional declarations to the phytosanitary certificate:

“The *Allium* dormant bulbs in this consignment have been sourced:

- 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

- from a “Pest free area” (country freedom), free from regulated phytoplasmas (Aster yellows phytoplasma, Garlic decline phytoplasma and Onion yellows phytoplasma), viruses (*Garlic dwarf virus*, *Garlic mite-borne latent virus*, *Garlic virus X*, *Onion mite-borne latent virus*, *Shallot yellow stripe virus*, *Sint-Jan's onion latent virus* and *Tobacco rattle virus*), and bacteria (*Erwinia chrysanthemi* pv. *Chrysanthemi*, *Burkholderia cepacia* and *Pseudomonas xanthochlora*.)”

(v) 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.

(vi) Assessment of Equivalent Phytosanitary Status

Where the pre-export phytosanitary requirements (part ii) can not be met, a request for assessment of equivalent phytosanitary status can be made to MPI.

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: a 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 for Primary Industries (MPI) 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

- sourced from a “pest free area” (country freedom) free from the organisms listed below:
 - **Phytoplasmas:**

Aster yellows phytoplasma, Garlic decline phytoplasma and Onion yellows phytoplasma.

- **Viruses:**

Garlic dwarf virus, Garlic mite-borne latent virus, Garlic virus X, Onion mite-borne latent virus, Shallot yellow stripe virus, Sint-Jan's onion latent 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 *Allium* tissue cultures in this consignment have been sourced from a “Pest free area” (country freedom), free from regulated phytoplasmas (Aster yellows phytoplasma, Garlic decline phytoplasma and Onion yellows phytoplasma) and viruses (*Garlic dwarf virus, Garlic mite-borne latent virus, Garlic virus X, Onion mite-borne latent virus, Shallot yellow stripe virus, Sint-Jan's onion latent virus and Tobacco rattle virus*).”

(v) Post-entry quarantine

Post-entry quarantine is not required, provided that the pre-export phytosanitary requirements are completed, and the phytosanitary certificate is endorsed with the required additional declaration (part iv).

(vi) Assessment of Equivalent Phytosanitary Status

Where the pre-export phytosanitary requirements (part iii) can not be met, a request for assessment of equivalent phytosanitary status can be made to MPI.

Pest List for *Allium*

REGULATED PESTS (actionable)

Insect

Insecta

Coleoptera

Curculionidae

<i>Brachycerus muricatus</i>	weevil
<i>Brachycerus undatus</i>	weevil
<i>Ceutorhynchus jakovlevi</i>	onion weevil

Nitidulidae

<i>Carpophilus obsoletus</i>	dried fruit beetle
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Diptera

Anthomyiidae

<i>Delia antiqua</i>	onion maggot
<i>Delia florilega</i>	onion fly

Heleomyzidae

<i>Suillia lurida</i>	garlic fly
<i>Suillia univittata</i>	-

Syrphidae

<i>Eumerus amoenus</i>	onion bulb fly
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Lepidoptera

Cossidae

<i>Dyspessa ulula</i>	garlic moth
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Yponomeutidae

<i>Acrolepia alliella</i>	-
<i>Acrolepia sapporensis</i>	allium leafminer
<i>Acrolepiopsis assectella</i>	leek moth

Thysanoptera

Thripidae

<i>Thrips tabaci</i> [vector]	onion thrips
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Mite

Arachnida

Acarina

Acaridae

<i>Rhizoglyphus setosus</i>	bulb mite
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Eriophyidae

<i>Aceria tulipae</i> [vector]	wheat curl mite
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Nematode

Adenophorea

Dorylaimida

Longidoridae

<i>Paralongidorus maximus</i>	-
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Trichodoridae

<i>Paratrichodorus allius</i>	stubby root nematode
<i>Paratrichodorus minor</i> [vector]	stubby root nematode
<i>Paratrichodorus teres</i>	stubby root nematode

Secernentea

Tylenchida

Aphelenchoididae

<i>Aphelenchoides besseyi</i>	rice white-tip nematode
<i>Aphelenchoides parietinus</i>	-

Belonolaimidae

<i>Belonolaimus gracilis</i>	sting nematode
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Hoplolaimidae

<i>Helicotylenchus indicus</i>	spiral nematode
<i>Helicotylenchus microlobus</i>	spiral nematode
<i>Helicotylenchus multicinctus</i>	spiral nematode

<i>Hoplolaimus seinhorsti</i>	lance nematode
<i>Rotylenchulus reniformis</i>	reniform nematode
Meloidogynidae	
<i>Meloidogyne arenaria</i>	peanut root knot nematode
<i>Meloidogyne chitwoodi</i>	root knot nematode
Tylenchidae	
<i>Ditylenchus dipsaci</i> [strains not in New Zealand]	stem and bulb nematode
Fungus	
Ascomycota	
Dothideales	
Mycosphaerellaceae	
<i>Mycosphaerella allii-cepae</i> (anamorph <i>Cladosporium allii-cepae</i>)	leaf blotch
Basidiomycota: Basidiomycetes	
Agaricales	
Tricholomataceae	
<i>Armillaria mellea</i> (anamorph <i>Rhizomorpha subcorticalis</i>)	armillaria root rot
Basidiomycota: Teliomycetes	
Uredinales	
Melampsoraceae	
<i>Melampsora allii-fragilis</i>	rust
Pucciniaceae	
<i>Puccinia asparagi</i>	asparagus rust
Basidiomycota: Ustomycetes	
Ustilaginales	
Tilletiaceae	
<i>Urocystis colchici</i>	leaf smut
Oomycota	
Pythiales	
Pythiaceae	
<i>Phytophthora palmivora</i>	black rot
mitosporic fungi (Coelomycetes)	
Sphaeropsidales	
Sphaerioidaceae	
<i>Phyllosticta allii</i>	leaf blight
<i>Septoria viridi-tingens</i>	--
Bacterium	
Enterobacteriaceae	
<i>Erwinia chrysanthemi</i> pv. <i>chrysanthemi</i>	bacterial soft rot
Pseudomonadaceae	
<i>Burkholderia cepacia</i>	sour skin
<i>Pseudomonas xanthochlora</i>	-
Virus	
<i>Garlic dwarf virus</i>	-
<i>Garlic mite-borne latent virus</i>	-
<i>Garlic virus X</i>	-
<i>Onion mite-borne latent virus</i>	-
<i>Shallot yellow stripe virus</i>	-
<i>Sint-Jan's onion latent virus</i>	-
<i>Tobacco rattle virus</i> [strains not in New Zealand]	-
Phytoplasma	
Aster yellows phytoplasma	-
Garlic decline phytoplasma	-
Onion yellows phytoplasma	-

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:

Approved 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 MPI-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 MPI-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.

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:

Approved 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:

Approved 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 *Anubias*”, and are additional to those specified in sections 1, 2 and 3 of the import health standard.

GENERAL CONDITIONS:

Approved 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

MPI 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

Arbutus

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:

Approved Countries: All

Quarantine Pests: *Phytophthora ramorum*

Entry Conditions:

Basic; with variations and additional conditions as specified below:

A. For Cuttings and Whole Plants

PEQ: Level 2

Minimum Period: 3 months

- a. Conditions for *Phytophthora ramorum* (section 2.2.1.11)

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:

Approved 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

Artocarpus

Note: These 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 *Artocarpus*”, and are additional to those specified in sections 1, 2 and 3 of the import health standard.

GENERAL CONDITIONS:

Approved Countries: All

Type of *Artocarpus* nursery stock approved for entry into New Zealand

Tissue culture

Entry conditions: 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 *Arum*”, and are additional to those specified in sections 1, 2 and 3 of the import health standard.

GENERAL CONDITIONS:

Approved 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:

Approved 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:

Approved 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".

Beaucarnea

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:

Approved 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.

Begonia

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:

Approved 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: 3 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 MPI-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 bulb certification scheme."

OR

2) For bulbs NOT produced under a MPI-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."

Berberis

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:

Approved Countries: All

Quarantine Pests: Uredinales; *Phytophthora ramorum*

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

a. Conditions for *Phytophthora ramorum* (see Section 2.2.1.11)

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*”.

GENERAL CONDITIONS:

Approved Countries: All

Quarantine Pests: *Xylella fastidiosa*

Entry Conditions:

Basic; with variations and additional conditions as specified below:

A. For Cuttings and Whole Plants

- a. Conditions for *Xylella fastidiosa* (section 2.2.1.12)
- b. Additional declaration: “The plants have been dipped in Furalaxyl at the rate of 0.25g a.i. per litre of water.”

B. For Plants in Tissue Culture from All Countries:

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

Bowenia

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:

Approved Countries: All except Australia and Italy

Quarantine Pests: *Demysus 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.

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 *Caladium*”, and are additional to those specified in sections 1, 2 and 3 of the import health standard.

GENERAL CONDITIONS:

Approved Countries: All

Quarantine Pests: Caladium virus X

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 free of Caladium virus X."

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:

Approved 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:

Approved 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

PEQ: Level 2

Minimum Period: 3 months

- a. Conditions for *Phytophthora ramorum* (section 2.2.1.11)
- b. Additional declaration: "The plants have been dipped in prochloraz at the rate of 0.5g a.i. per litre of water".
- c. 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:

Approved Countries:	Afghanistan	Iran	Mongolia	Syria
	Armenia	Iraq	Myanmar	Taiwan
	Azerbaijan	Israel	Nepal	Tajikistan
	Bangladesh	Japan	North Korea	Thailand
	Bhutan	Jordan	Oman	Turkey
	Brunei	Kazakstan	Pakistan	Turkmenistan
	Cambodia	Kuwait	Philippines	United Arab Emirates
	China	Kyrgyzstan	Saudi Arabia	Uzbekistan
	Georgia	Laos	Singapore	Vietnam
	India	Lebanon	South Korea	Yemen
	Indonesia	Malaysia	Sri Lanka	

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

- a. Conditions for *Phytophthora ramorum* (section 2.2.1.11)

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:

Approved Countries: All

Quarantine Pests: Virus diseases; *Xylella fastidiosa*

Entry Conditions:

Basic; with variations and additional conditions as specified below:

A. For Whole Plants

PEQ: Level 2

Minimum Period: 6 months

- a. Conditions for *Xylella fastidiosa* (see section 2.2.1.12)

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

OPTION 1:

No import permit is required.

PEQ: None

- a. Conditions for *Xylella fastidiosa* (see section 2.2.1.12, part i) For countries recognised as free from *Xylella fastidiosa* only), AND
- b. Additional declaration “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

- a. Conditions for *Xylella fastidiosa* (see section 2.2.1.12, part i) For countries recognised as free from *Xylella fastidiosa* only)

C. For Dormant Bulbs from Countries other than in B

OPTION 1:

PEQ: Level 1

Minimum Period: 3 months

- a. Conditions for *Xylella fastidiosa* (see section 2.2.1.12, part i) For countries recognised as free from *Xylella fastidiosa* only), AND
- b. Additional declaration: 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
- c. 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

- a. Conditions for *Xylella fastidiosa* (see section 2.2.1.12, part i or ii)

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."

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:

Approved 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 mosaic virus* and *Papaya ringspot virus*."

OPTION 2:

For Whole Plants and Tissue Cultures:

PEQ: Level 3
Minimum Period: 3 months

Carpinus

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:

Approved Countries: All

Quarantine Pests: *Phytophthora ramorum*

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

a. Conditions for *Phytophthora ramorum* (see Section 2.2.1.11)

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

Carya

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:

Approved Countries: Australia, USA

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

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

PEQ: Level 2
Minimum Period: 6 months

- a. Conditions for *Ceratocystis fimbriata* (section 2.2.1.8)

Note: Only applies to members of the *Carya* genus

- b. 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:

Approved Countries: All

Quarantine Pests: *Ceratocystis fimbriata*, *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

- a. Conditions for *Ceratocystis fimbriata* (section 2.2.1.8)
Note: Only applies to members of the *Carya* and *Ostrya* genera

- b. Additional declaration:

"*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

- a. Conditions for *Ceratocystis fimbriata* (section 2.2.1.8)
Note: Only applies to members of the *Carya* and *Ostrya* genera

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 MPI-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:

Approved 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:

A. For Whole Plants (dormant) and Cuttings (dormant) and Tissue Culture:

PEQ: Level 3

Minimum Period: 3 months

- a. Conditions for *Phytophthora ramorum* (section 2.2.1.11)
- b. Conditions for *Xylella fastidiosa* (section 2.2.1.12)
- c. Conditions for *Cryphonectria parasitica* and *Ceratocystis fagacearum*:
Additional declaration: "*Cryphonectria parasitica* and *Ceratocystis fagacearum* are not known to occur in _____ (the country/ 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:

Approved 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 MPI-registered laboratory at the importers expense, prior to release to the importer.

Chrysanthemum

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*”, and are additional to those specified in sections 1, 2 and 3 of the import health standard.

GENERAL CONDITIONS:

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

Quarantine Pests: *Potato spindle tuber viroid*¹, 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:

"The nursery stock in this consignment has been sourced from a “Pest free area” or “Pest free place of production” [choose one], free from *Potato spindle tuber viroid*.

AND

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.

PLUS:

Additional Declaration:

"The cultures have been derived from parent stock sourced from a “Pest free area” or “Pest free place of production” [choose one], free from *Potato spindle tuber viroid*".

OR

“The cultures have been derived from parent stock tested by PCR and found free from *Potato spindle tuber viroid*".

¹ Requirements for *Potato spindle tuber viroid* will commence on 1 September 2014:

All phytosanitary certificates issued on or after 1 September 2014 must be endorsed with the correct additional declarations for *Potato spindle tuber viroid*.

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:

Approved 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."

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 MPI-accredited facilities (quarantine stations)

An offshore accredited facility is a facility that has been accredited to the Standard PIT.OS.TRA.ACPQF to undertake phytosanitary activities. For *Citrus*, the accredited facility operator must also have an agreement with MPI 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 MPI 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 MPI 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 MPI (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 MPI-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 MPI, 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 MPI 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. Plants must be held at 18-25°C throughout the quarantine period.

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

Indicative minimum quarantine periods are:

- 6 months for *Citrus* cuttings sourced from mother plants that have been kept in insect proof plant houses, which may be extended to 12 months to allow for testing to be completed; or
- 16 months for *Citrus* cuttings sourced directly from open ground mother plants.

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 MPI 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 MPI (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 MPI, and to conform with the current phytosanitary requirements of MPI."

(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 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 MPI-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 MPI-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 MPI-accredited facilities

An offshore accredited facility is a facility that has been accredited to the Standard PIT.OS.TRA.ACPQF to undertake phytosanitary activities. For *Citrus*, the accredited facility operator must also have an agreement with MPI 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 MPI 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 MPI 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 MPI (refer to the pest list).

AND

- held and tested for/classified free from specified regulated pests at a MPI-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 MPI, 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 MPI 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 MPI 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 MPI (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 MPI, and to conform with the current phytosanitary requirements of MPI."

(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 MPI-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)

Insect

Insecta

Coleoptera

Bostrichidae

Apate indistincta

shot-hole borer

Apate terebrans

shot-hole borer

Buprestidae

Agrilus alesi

flatheaded citrus borer

Agrilus auriventris

citrus flatheaded borer

Cerambycidae

Anoplophora malasiaca

white-spotted longicorn beetle

Chelidonium gibbicolle

-

Dihammus vastator

fig longhorn

Melanauster chinensis

-

Paradisterna plumifera

speckled longicorn

Promeces linearis

-

Skeletodes tetrops

longhorn beetle

Strongylurus thoracicus

pittosporum longicorn

Uracanthus cryptophagus

citrus branch borer

Chrysomelidae

Colasposoma fulgidum

bluegreen citrus nibbler

Colasposoma scutellare

-

Geloptera porosa

pitted apple beetle

Luperomorpha funesta

mulberry flea beetle

Monolepta australis

red-shouldered leaf beetle

Sebaethe fulvipennis

flea beetle

Coccinellidae

Cheilomenes lunata [Animals Biosecurity]

-

Chilocorus cacti [Animals Biosecurity]

-

Chilocorus distigma [Animals Biosecurity]

-

Chilocorus nigrita [Animals Biosecurity]

-

Exochomus flavipes [Animals Biosecurity]

-

Pentilia castanea [Animals Biosecurity]

-

Rhyzobius lophanthae [Animals Biosecurity]

-

Scymnus nanus [Animals Biosecurity]

-

Serangium parcesetosum [Animals Biosecurity]

-

Stethorus aethiops [Animals Biosecurity]

-

Stethorus histrio [Animals Biosecurity]

-

Stethorus punctata picipes [Animals Biosecurity]

-

Curculionidae

Amystax fasciatus [Animals Biosecurity]

-

Artipus sp.

-

Brachycerus citriperda

-

Callirhopalus bifasciatus

two-banded Japanese weevil

Dereodus recticollis

-

Diaprepes abbreviatus

citrus weevil

Diaprepes spp.

-

Eutinophaea bicristata

citrus leaf-eating weevil

Leptopius squalidus

fruit tree root weevil

Naupactus xanthographus

fruit tree weevil

Otiorhynchus cribricollis

cribrate weevil

Pachnaeus citri

-

Pachnaeus litus

citrus root weevil

Perperus lateralis

white-striped weevil

Prepodes spp.

-

<i>Protoctrophus avidus</i>	weevil
<i>Sciobius marshalli</i>	citrus snout beetle
<i>Sympiezomias lewisi</i>	-
Lucanidae	
<i>Prosopocoilus spencei</i>	-
Scarabaeidae	
<i>Hypopholis indistincta</i>	scarab beetle
<i>Maladera matruda</i>	scarab beetle
Scolytidae	
<i>Salagena</i> sp.	-
<i>Xylosandrus germanus</i>	alnus ambrosia beetle
Diptera	
Cecidomyiidae	
<i>Contarinia citri</i>	leafcurling midge
<i>Contarinia okadai</i>	citrus flower gall midge
<i>Trisopsis</i> sp.	-
Chamaemyiidae	
<i>Leucopis alticeps</i> [Animals Biosecurity]	-
Drosophilidae	
<i>Drosophila paulistorum</i>	-
<i>Drosophila pseudoobscura</i>	-
<i>Drosophila simulans</i>	-
<i>Drosophila willistoni</i>	-
Tephritidae	
<i>Dirioxa pornia</i>	island fruit fly
Hemiptera	
Anthocoridae	
<i>Orius thripoborus</i> [Animals Biosecurity]	-
<i>Triphleps thripoborus</i> [Animals Biosecurity]	-
Coreidae	
<i>Acanthocoris striicornis</i>	larger squash bug
<i>Anoplocnemis curvipes</i>	coreid bug
<i>Leptoglossus membranaceus</i>	coreid bug
<i>Mictis profana</i>	crusader bug
<i>Paradasynus spinosus</i>	squash bug
<i>Veneza phyllopus</i>	leaf-footed bug
Lygaeidae	
<i>Nysius vinitor</i>	Rutherglen bug
Miridae	
<i>Austropeplus</i> sp.	citrus blossom bug
Pentatomidae	
<i>Antestia variegata</i>	antestia bug
<i>Antestiopsis orbitalis</i>	-
<i>Antestiopsis variegata</i>	antestia bug
<i>Biprorulus bibax</i>	spined citrus bug
<i>Glaucias subpunctatus</i>	polished green stink bug
<i>Halyomorpha mista</i>	brown-marmorated stink bug
<i>Musgraveia sulciventris</i>	bronze orange bug
<i>Plautia stali</i>	oriental stink bug
<i>Rhynchocoris humeralis</i>	pentatomid bug
Unknown Hemiptera	
<i>Holopterna vulga</i>	bug
Homoptera	
Aleyrodidae	
<i>Aleurocanthus citriperdus</i>	whitefly
<i>Aleurocanthus spiniferus</i>	orange spiny whitefly
<i>Aleurocanthus</i> spp.	whiteflies
<i>Aleurocanthus woglumi</i>	citrus blackfly
<i>Aleurodicus dispersus</i>	spiralling whitefly
<i>Aleurolobus marlatti</i>	Marlatt whitefly

<i>Aleuroplatus</i> sp.	whitefly
<i>Aleurothrixus floccosus</i>	woolly whitefly
<i>Aleurotuba jelinekii</i>	-
<i>Aleurotuberculatus aucubae</i>	aucuba whitefly
<i>Bemisia citricola</i>	-
<i>Dialeurodes citri</i>	citrus whitefly
<i>Dialeurodes citrifolii</i>	cloudywinged whitefly
<i>Dialeurolonga</i> sp.	-
<i>Parabemisia myricae</i>	Japanese bayberry whitefly
<i>Siphoninus phillyreae</i>	phillyrea whitefly
Aphididae	
<i>Aphis fabae</i>	bean aphid
<i>Aulacorthum magnoliae</i>	Japanese elder aphid
Cicadellidae	
<i>Asymmetrasca decedens</i>	leafhopper
<i>Circulifer opacipennis</i>	-
<i>Circulifer tenellus</i>	beet leafhopper
<i>Cuerna costalis</i>	leafhopper
<i>Edwardsiana flavescens</i>	leafhopper
<i>Empoasca bodenheimeri</i>	-
<i>Empoasca citrura</i>	green citrus leafhopper
<i>Empoasca decipiens</i>	green leafhopper
<i>Empoasca distinguenda</i>	-
<i>Empoasca fabae</i>	potato leafhopper
<i>Empoasca onukii</i>	tea green leafhopper
<i>Homalodisca coagulata</i>	glassy-winged sharpshooter
<i>Homalodisca lacerta</i>	-
<i>Jacobiasca lybica</i>	cotton jassid
<i>Nealiturus haematoceps</i>	leafhopper
<i>Penthimiola bella</i>	citrus leafhopper
<i>Scaphytopius nitridus</i>	leafhopper
Cicadidae	
<i>Cryptotympana facialis</i>	black cicada
<i>Meimuna opalifera</i>	elongate cicada
Coccidae	
<i>Ceroplastes floridensis</i>	Florida wax scale
<i>Ceroplastes japonicus</i>	pink wax scale
<i>Ceroplastes rubens</i>	red wax scale
<i>Ceroplastes rusci</i>	fig wax scale
<i>Coccus celatus</i>	-
<i>Coccus pseudomagnoliarum</i>	citricola scale
<i>Coccus viridis</i>	green scale
<i>Cribrolectanium andersoni</i>	white powdery scale
<i>Gascardia brevicauda</i>	white waxy scale
<i>Protopulvinaria pyriformis</i>	pyriform scale
<i>Pulvinaria aethiopica</i>	soft green scale
<i>Pulvinaria aurantii</i>	citrus cottony scale
<i>Pulvinaria cellulosa</i>	pulvinaria scale
<i>Saissetia citricola</i>	citrus string cottony scale
<i>Saissetia somereni</i>	-
Dactylopiidae	
<i>Dactylopius filamentosis</i>	-
<i>Dactylopius vastator</i>	-
Diaspididae	
<i>Aonidiella citrina</i>	yellow scale
<i>Chrysomphalus aonidum</i>	Florida red scale
<i>Chrysomphalus bifasciculatus</i>	brown scale
<i>Chrysomphalus dictyospermi</i>	dictyospermum scale
<i>Chrysomphalus pinnulifera</i>	false purple scale
<i>Ischnaspis longirostris</i>	black thread scale

<i>Lepidosaphes beckii</i>	purple scale
<i>Lepidosaphes gloverii</i>	Glover scale
<i>Parlatoria ziziphi</i>	black parlatoria scale
<i>Pseudaonidia duplex</i>	camphor scale
<i>Selenaspidus articulatus</i>	West Indian red scale
<i>Unaspis citri</i>	citrus snow scale
<i>Unaspis yanonensis</i>	Japanese citrus scale
Flatidae	
<i>Colgar peracuta</i>	-
<i>Geisha distinctissima</i>	green broad-winged planthopper
<i>Lawana conspersa</i>	green flatid planthopper
<i>Metcalfa pruinosa</i>	planthopper
Fulgoridae	
<i>Anzora unicolor</i>	-
Margarodidae	
<i>Drosicha howardi</i>	persimmon mealybug
<i>Icerya seychellarum</i>	Seychelles scale
Ortheziidae	
<i>Nipponorthezia ardisiae</i>	ensign scale
Pseudococcidae	
<i>Allococcus</i> spp.	-
<i>Ferrisia consobrina</i>	mealybug
<i>Ferrisia virgata</i>	striped mealybug
<i>Nipaecoccus vastator</i>	nipa mealybug
<i>Nipaecoccus viridis</i>	hibiscus mealybug
<i>Paracoccus burnerae</i>	spherical mealybug
<i>Planococcus kraunhiae</i>	Japanese wisteria mealybug
<i>Planococcus lilacinus</i>	citrus mealybug
<i>Planococcus minor</i>	passionvine mealybug
<i>Pseudococcus citriculus</i>	smaller citrus mealybug
<i>Pseudococcus commonus</i>	-
<i>Pseudococcus filamentosus</i>	mealybug
<i>Rastrococcus spinosus</i>	mealybug
<i>Rhizoecus kondonis</i>	Kondo mealybug
Psyllidae	
<i>Diaphorina citri</i>	citrus psyllid
<i>Trioza erytrae</i> [vector]	citrus psyllid
Ricanidae	
<i>Scolypopa</i> sp.	-
Tropiduchidae	
<i>Tambinia</i> sp.	-
Hymenoptera	
Aphelinidae	
<i>Aphytis africanus</i> [Animals Biosecurity]	-
<i>Aphytis holoxanthus</i> [Animals Biosecurity]	-
<i>Aphytis lepidosaphes</i> [Animals Biosecurity]	-
<i>Aphytis lingnanensis</i> [Animals Biosecurity]	-
<i>Aphytis melinus</i> [Animals Biosecurity]	-
<i>Azotus platensis</i> [Animals Biosecurity]	-
<i>Cales noacki</i> [Animals Biosecurity]	-
<i>Cales orchamoplati</i> [Animals Biosecurity]	-
<i>Centrodora penthymiae</i> [Animals Biosecurity]	-
<i>Coccophagus caridei</i> [Animals Biosecurity]	-
<i>Coccophagus pulvinariae</i> [Animals Biosecurity]	-
<i>Encarsia ectophaga</i> [Animals Biosecurity]	-
<i>Encarsia lahorensis</i> [Animals Biosecurity]	-
<i>Encarsia lounsburyi</i> [Animals Biosecurity]	-
<i>Encarsia opulenta</i> [Animals Biosecurity]	-
<i>Encarsia smithi</i> [Animals Biosecurity]	-
<i>Eretmocerus serius</i> [Animals Biosecurity]	-

<i>Marietta connecta</i> [Animals Biosecurity]	-
<i>Marietta leopardina</i> [Animals Biosecurity]	-
Braconidae	
<i>Apanteles aristotalilae</i> [Animals Biosecurity]	-
<i>Biosteres longicaudatus</i> [Animals Biosecurity]	-
<i>Pholetesor ornigis</i> [Animals Biosecurity]	-
Encyrtidae	
<i>Anicetus beneficus</i> [Animals Biosecurity]	-
<i>Comperiella bifasciata</i> [Animals Biosecurity]	-
<i>Habrolepis rouxi</i> [Animals Biosecurity]	-
<i>Leptomastix dactylopii</i> [Animals Biosecurity]	parasitic wasp
<i>Metaphycus helvolus</i> [Animals Biosecurity]	-
<i>Metaphycus luteolus</i> [Animals Biosecurity]	-
<i>Metaphycus stanleyi</i> [Animals Biosecurity]	-
<i>Metaphycus varius</i> [Animals Biosecurity]	-
<i>Psyllaephagus pulvinatus</i> [Animals Biosecurity]	-
Eulophidae	
<i>Aprostocetus ceroplastae</i> [Animals Biosecurity]	-
<i>Elachertus fenestratus</i> [Animals Biosecurity]	-
<i>Tamarixia radiatus</i> [Animals Biosecurity]	-
Eupelmidae	
<i>Anastatus biproruli</i> [Animals Biosecurity]	-
Eurytomidae	
<i>Bruchophagus fellis</i>	citrus gall midge
Formicidae	
<i>Acromyrmex octospinosus</i>	leaf-cutting ant
<i>Anoplolepis braunsi</i> [Animals Biosecurity]	-
<i>Anoplolepis custodiens</i>	ant
<i>Anoplolepis steingroeveri</i> [Animals Biosecurity]	black ant
<i>Atta cephalotes</i>	leaf-cutting ant
<i>Atta sexdens</i>	-
<i>Atta texana</i>	Texas leaf-cutting ant
<i>Camponotus rufoglaucus</i>	-
<i>Crematogaster castanea</i>	-
<i>Crematogaster liengmei</i>	-
<i>Crematogaster peringueyi</i> [Animals Biosecurity]	cocktail ant
<i>Lepisiota capensis</i> [Animals Biosecurity]	-
<i>Myrmicaria natalensis</i>	-
<i>Pheidole tenuinodis</i>	ant
<i>Polyrhachis schistaceus</i>	ant
<i>Solenopsis invicta</i> [Animals Biosecurity]	red imported fire ant
<i>Tapinoma arnoldi</i>	-
<i>Technomyrmex albipes foreli</i> [Animals Biosecurity]	-
Mymaridae	
<i>Chaetomyrmac gracile</i> [Animals Biosecurity]	-
<i>Chaetomyrmac lepidum</i> [Animals Biosecurity]	-
<i>Gonatocerus incomptus</i> [Animals Biosecurity]	-
Platygasteridae	
<i>Amitus hesperidum</i> [Animals Biosecurity]	-
<i>Amitus spiniferus</i> [Animals Biosecurity]	-
<i>Fidiobia citri</i> [Animals Biosecurity]	-
Scelionidae	
<i>Trissolcus oeneus</i> [Animals Biosecurity]	-
<i>Trissolcus oenone</i> [Animals Biosecurity]	-
<i>Trissolcus ogyges</i> [Animals Biosecurity]	-
Signiphoridae	
<i>Signiphora fax</i> [Animals Biosecurity]	-
<i>Signiphora flavella</i> [Animals Biosecurity]	-
<i>Signiphora perpauca</i> [Animals Biosecurity]	-
Trichogrammatidae	

<i>Trichogramma platneri</i> [Animals Biosecurity]	-
Vespidae	
<i>Polistes</i> spp. [Animals Biosecurity]	paper wasps
Isoptera	
Termitidae	
<i>Odontotermes lokanandi</i>	termite
Lepidoptera	
Arctiidae	
<i>Lemyra imparilis</i>	mulberry tiger moth
Blastobasidae	
<i>Holcocera iceryaeella</i>	-
Cosmopterigidae	
<i>Pyroderces rileyi</i>	pink scavenger caterpillar
Geometridae	
<i>Anacamptodes fragilaria</i>	koa haole looper
<i>Ascotis selenaria reciprocaria</i>	citrus looper
<i>Gymnoscelis rufifasciata</i>	geometrid moth
<i>Hyposidra talaca</i>	-
Gracillariidae	
<i>Phyllocnistis citrella</i>	citrus leafminer
Hepialidae	
<i>Endoclita excrescens</i>	Japanese swift moth
<i>Endoclita sinensis</i>	-
Lycaenidae	
<i>Virachola isocrates</i>	pomegranate butterfly
Lymantriidae	
<i>Orgyia vetusta</i>	western tussock moth
Metarbelidae	
<i>Indarbela tetraonis</i>	stem borer
Noctuidae	
<i>Arcte coerulea</i>	fruit-piercing moth
<i>Eudocima fullonia</i>	fruit-piercing moth
<i>Helicoverpa assulta</i>	cape gooseberry budworm
<i>Helicoverpa punctigera</i>	oriental tobacco budworm
<i>Tiracola plagiata</i>	banana fruit caterpillar
<i>Xylomyges curialis</i>	noctuid moth
Nymphalidae	
<i>Charaxes jasius</i>	nymphalid butterfly
Oecophoridae	
<i>Psorosticha melanocrepida</i>	citrus leafroller
<i>Psorosticha zizyphi</i>	citrus leafroller
<i>Stathmopoda auriferella</i>	apple heliodinid
Papilionidae	
<i>Papilio aegeus aegeus</i>	-
<i>Papilio anactus</i>	small citrus butterfly
<i>Papilio cresphontes</i>	orange dog
<i>Papilio dardanus cenea</i>	-
<i>Papilio demodocus</i>	orange dog
<i>Papilio demoleus demoleus</i>	-
<i>Papilio helenus nicconicolens</i>	-
<i>Papilio machaon asiatica</i>	-
<i>Papilio memnon</i>	citrus swallowtail
<i>Papilio memnon thunbergii</i>	-
<i>Papilio nireus lyaeus</i>	-
<i>Papilio polytes polytes</i>	-
<i>Papilio protenor demetrius</i>	-
<i>Papilio xuthus</i>	citrus swallowtail
<i>Papilio zelicaon</i>	anise swallowtail
Psychidae	
<i>Eumeta hardenbergi</i>	-

<i>Eumeta japonica</i>	-
<i>Eumeta minuscula</i>	tea bagworm
<i>Eumeta moddermanni</i>	-
<i>Hyalarcta huebneri</i>	leaf case moth
Pyralidae	
<i>Apomyelois ceratoniae</i>	date pyralid
Tortricidae	
<i>Adoxophyes</i> sp.	-
<i>Amorbia cuneana</i>	leafroller
<i>Archips argyrospilus</i>	fruit tree leafroller
<i>Archips machlopiis</i>	leafroller
<i>Archips occidentalis</i>	leafroller
<i>Archips rosanus</i>	rose leafroller
<i>Argyrotaenia citrana</i>	orange tortrix
<i>Cacoecimorpha pronubana</i>	carnation leafroller
<i>Cryptophlebia batrachopa</i>	-
<i>Cryptophlebia leucotreta</i>	false codling moth
<i>Homona magnanima</i>	oriental tea tortrix
<i>Isotenes miserana</i>	orange fruitborer
<i>Platynota stultana</i>	omnivorous leafroller
<i>Tortrix capensana</i>	tortricid moth
Yponomeutidae	
<i>Prays citri</i>	citrus flower moth
<i>Prays parilis</i>	citrus flower moth
Neuroptera	
Chrysopidae	
<i>Chrysopa oculata</i> [Animals Biosecurity]	-
Coniopterygidae	
<i>Coniopteryx vicina</i> [Animals Biosecurity]	-
<i>Conwentzia barretti</i> [Animals Biosecurity]	-
Orthoptera	
Acrididae	
<i>Zonocerus elegans</i>	elegant grasshopper
Gryllidae	
<i>Ornebius kanetataki</i>	cricket
Tettigoniidae	
<i>Caedicia</i> sp.	-
<i>Holochlora japonica</i>	Japanese broadwinged katydid
<i>Microcentrum retinerve</i>	smaller angular-winged katydid
<i>Scudderia furcata</i>	fork-tailed bush katydid
Psocoptera	
Archipsocidae	
<i>Archipsocus</i> sp.	bark louse
Thysanoptera	
Aeolothripidae	
<i>Franklinothrips vespiformis</i> [Animals Biosecurity]	-
Thripidae	
<i>Chaetanaphothrips orchidii</i>	banana rust thrips
<i>Leptothrips mali</i>	black hunter thrips
<i>Scirtothrips aurantii</i>	citrus thrips
<i>Scirtothrips citri</i>	citrus thrips
<i>Scirtothrips dorsalis</i>	chilli thrips
<i>Scirtothrips mangiferae</i>	mango thrips
<i>Scolothrips sexmaculatus</i> [Animals Biosecurity]	-
<i>Taeniothrips kellyanus</i>	-
<i>Taeniothrips</i> sp.	-
<i>Thrips coloratus</i>	thrips
<i>Thrips flavus</i>	flower thrips
<i>Thrips palmi</i>	palm thrips
Unknown Insecta	

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] -**Tarsonemidae***Tarsonemus cryptocephalus* [Animals Biosecurity] -**Tenuipalpidae***Brevipalpus chilensis* false spider mite*Brevipalpus lewisi* bunch mite*Brevipalpus obovatus* privet mite*Tenuipalpus emeticae* [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* 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	
<i>Achatina immaculata</i>	-
<i>Lissachatina immaculata</i>	snail
Bradybaenidae	
<i>Acusta despecta sieboldiana</i>	snail
Subulinidae	
<i>Rumina decollata</i>	snail
Urocyclidae	
<i>Urocyclus flavescens</i>	-
<i>Urocyclus kirkii</i>	-
Fungus	
Ascomycota	
Diaporthales	
Valsaceae	
<i>Diaporthe rudis</i> (anamorph <i>Phomopsis rudis</i>)	phomopsis canker
Dothideales	
Elsinoaceae	
<i>Elsinoe australis</i>	sweet orange scab
Capnodiaceae	
<i>Capnodium citri</i>	sooty mould
Didymosphaeriaceae	
<i>Didymosphaeria</i> sp.	--
Microascales	
Ceratocysticaceae	
<i>Ceratocystis fimbriata</i>	-
Mycosphaerellaceae	
<i>Guignardia citricarpa</i> (anamorph <i>Phyllosticta citricarpa</i>) [black spot strain]	citrus black spot
<i>Mycosphaerella citri</i> (anamorph <i>Stenella citri-grisea</i>)	rind blotch
<i>Mycosphaerella horii</i>	greasy spot
Patellariales	
Patellariaceae	
<i>Rhytidhysteron rufulum</i>	--
Saccharomycetales	
Saccharomycetaceae	
<i>Debaryomyces hansenii</i>	-
<i>Galactomyces citri-aurantii</i> (anamorph <i>Geotrichum citri-aurantii</i>)	sour rot
Basidiomycota: Basidiomycetes	
Boletales	
Coniophoraceae	
<i>Coniophora eremophila</i>	brown wood rot
Basidiomycota: Teliomycetes	
Septobasidiales	
Septobasidiaceae	
<i>Septobasidium pseudopedicellatum</i>	felt fungus
Mitosporic Fungi	
Unknown Mitosporic Fungi	
Unknown Mitosporic Fungi	
<i>Sphaeloma fawcettii</i> var. <i>scabiosa</i>	-
Mitosporic Fungi (Coelomycetes)	
Sphaeropsidales	
Sphaerioidaceae	
<i>Macrophoma mantegazziana</i>	-
<i>Phoma erratica</i> var. <i>mikan</i>	--
<i>Phoma tracheiphila</i>	mal secco
<i>Phomopsis</i> sp.	rot
<i>Septoria</i> spp.	-

<i>Sphaeropsis tumefaciens</i>	stem gall
Unknown Coelomycetes	
Unknown Coelomycetes	
<i>Aschersonia placenta</i> [Animals Biosecurity]	--
<i>Gloeosporium foliicolum</i>	fruit rot
Mitosporic Fungi (Hyphomycetes)	
Hyphomycetales	
Dematiaceae	
<i>Alternaria limicola</i>	-
<i>Alternaria pellucida</i>	--
<i>Cercospora microsora</i>	-
<i>Phaeoramularia angolensis</i>	cercospora spot
<i>Stemphylium rosarium</i>	--
<i>Ulocladium obovoideum</i>	ulocladium rot
Unknown Hyphomycetes	
Unknown Hyphomycetes	
<i>Aureobasidium</i> sp.	-
<i>Hirsutella thompsonii</i> [Animals Biosecurity]	--
<i>Isaria</i> sp. [Animals Biosecurity]	-
<i>Oidium tingitaninum</i>	powdery mildew
<i>Sporobolomyces roseus</i>	--
<i>Stenella</i> sp.	--
Zygomycota: Zygomycetes	
Glomales	
Glomaceae	
<i>Glomus etunicatum</i> [Animals Biosecurity]	--
Mucorales	
Syncephalastraceae	
<i>Syncephalastrum racemosum</i>	--
Bacterium	
Bacterium family unknown	
<i>Liberobacter africanum</i>	citrus greening bacterium
<i>Liberobacter asiaticum</i>	citrus greening bacterium
<i>Liberobacter</i> sp.	citrus greening bacterium
<i>Spiroplasma citri</i>	citrus stubborn
Pseudomonadaceae	
<i>Burkholderia cepacia</i>	sour skin
<i>Xanthomonas axonopodis</i> pv. <i>citri</i>	citrus canker
<i>Xanthomonas campestris</i> pv. <i>aurantifolii</i>	-
<i>Xanthomonas campestris</i> pv. <i>citrumelo</i>	citrus bacterial spot
<i>Xylella fastidiosa</i>	Pierce's disease
<i>Xylella fastidiosa</i> pv. <i>citri</i>	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	-
satsuma dwarf nepovirus [Natsudaidai dwarf strain]	-
xyloporosis viroid	-
yellow vein clearing of lemon	-

Phytoplasma

<i>Candidatus</i> 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 impietratura disease	-
citrus sunken vein disease	-
concave gum	-
crisacortis	-
gum pocket	-
gummy bark	-
kassala disease	-
lemon sieve tube necrosis	-
shell bark of lemons	-
zonate chlorosis	-

Inspection, Testing and Treatment Requirements for *Citrus**

ORGANISM TYPES	MPI ACCEPTABLE METHODS
Insects	Visual inspection AND approved insecticide treatments (Refer to section 2.2.1.6 of the basic conditions).
Mites	Visual inspection AND approved miticide treatments (Refer to section 2.2.1.6 of the basic conditions).
Fungus	Country freedom OR growing season inspection for symptom expression.
Bacterium	
<i>Burkholderia cepacia</i>	Growing season inspection for symptom expression.
<i>Liberobacter africanum</i>	Country freedom OR graft-inoculated sweet oranges, orange pineapple, 18 to 25°C.
<i>Liberobacter asiaticum</i>	Country freedom OR graft-inoculated sweet oranges, orange pineapple, 18 to 25°C.
<i>Spiroplasma citri</i>	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 (> 30°C) and incubate cultures at 32°C.
<i>Xanthomonas axonopodis</i> pv. <i>citri</i>	Country freedom/shoot tip grafting bioassay/detached leaf bioassay/ PCR OR suitable citrus indicator.
<i>Xanthomonas campestris</i> pv. <i>aurantifolii</i>	Country freedom/shoot tip grafting bioassay/detached leaf bioassay/ PCR OR suitable citrus indicator.
<i>Xanthomonas campestris</i> pv. <i>citrumelo</i>	Country freedom/shoot tip grafting bioassay/detached leaf bioassay/ PCR OR suitable citrus indicator.
<i>Xylella fastidiosa</i>	Country freedom/shoot tip grafting bioassay/ PCR/ELISA OR suitable citrus indicator.
<i>Xylella fastidiosa</i> pv. <i>citri</i>	Country freedom/shoot tip grafting bioassay PCR/ELISA OR suitable citrus indicator.
Virus	
citrus chlorotic dwarf	Country freedom OR graft inoculated rough lemon at cool temperatures 18 to 25°C.
citrus infectious variegation ilarvirus	Country freedom OR graft inoculated citron, sour orange, lemon, cidro etrog. Grow indicators at cool temperatures 18 to 25°C.
citrus infectious variegation ilarvirus [crinkly leaf strain]	Country freedom OR graft inoculated citron, sour orange, lemon, cidro etrog. Grow indicators at cool temperatures 18 to 25°C.
citrus leaf rugose ilarvirus	Country freedom OR graft inoculated Mexican lime or sour orange. Grow indicators at cool temperatures 18 to 25°C.
citrus leathery leaf virus	Country freedom OR Rangpur lime. Grow indicators at cool temperatures 18 to 25°C.
citrus leprosis rhabdovirus	Country freedom OR graft inoculated sweet orange. Grow indicators at cool temperatures 18 to 25°C.
citrus mosaic virus	Country freedom OR graft inoculated satsums. Grow indicators at cool temperatures 18 to 25°C.
citrus ringspot virus	Country freedom OR graft inoculated dweet tangor, sweet orange, mandarin (Parson's Special). Grow indicators at cool temperatures 18 to 25°C.
citrus tatter leaf capillovirus	Country freedom OR graft inoculated Rusk citrange, rough lemon, <i>Citrus excelsa</i> , citrange (Troyer). Grow indicators at cool temperatures 18 to 25°C.
citrus tristeza closterovirus [strains not in New Zealand]	Country freedom OR ELISA, graft inoculated Mexican lime, sour orange and <i>Citrus excelsa</i> . Grow indicators at cool temperatures 18 to 25°C.
citrus yellow mosaic badnavirus	Country freedom OR graft inoculated sweet orange, sour orange and citron.
citrus yellow mottle virus	Country freedom OR other suitable test.
Indian citrus mosaic badnavirus	Country freedom OR graft inoculated sweet orange at hot temperature 27 to 32°C.
navel orange infectious mottling virus	Country freedom OR graft inoculated Satsums. Grow indicators at cool temperatures 18 to 25°C.

ORGANISM TYPES	MPI ACCEPTABLE METHODS
satsuma dwarf nepovirus	Country freedom OR graft inoculated satsums. Grow indicators at cool temperatures 18 to 25°C.
satsuma dwarf nepovirus [Natsudaikai dwarf strain]	Country freedom OR graft inoculated satsums. Grow indicators at cool temperatures 18 to 25°C.
yellow vein clearing of lemon	Country freedom OR graft inoculated Mexican lime or sour orange. Grow indicators at cool temperatures 18 to 25°C.
Viroid	
citrus cachexia viroid	Country freedom OR SPAGE and PCR on graft inoculated citron extract. Grow citron at hot temperature 27 to 32°C.
citrus variable viroid	Country freedom OR SPAGE and PCR on graft inoculated citron extract. Grow citron at hot temperature 27 to 32°C.
citrus viroids (groups I-IV)	Country freedom OR SPAGE and PCR on graft inoculated citron extract. Grow citron at hot temperature 27 to 32°C.
dwarfing factor viroid	Country freedom OR SPAGE and PCR on graft inoculated citron extract. Grow citron at hot temperature 27 to 32°C.
xyloporosis viroid	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.
Disease of unknown aetiology	
Australian citrus dieback	Country freedom OR other suitable test
blind pocket	Country freedom OR graft inoculated dweet tangor, sweet orange or <i>Citrus excelsa</i> . Grow indicators at cool temperatures 18 to 25°C.
bud union disease	Country freedom OR other suitable test
citrus blight disease	None (cuttings collected from blight free area). Inspect source tree after 2 years before releasing from quarantine.
citrus fatal yellows	Country freedom OR graft inoculated <i>Citrus macrophylla</i> .
citrus impietratura disease	Country freedom OR graft inoculated dweet tangor or sweet orange. Growth indicators at cool temperatures 18 to 25°C.
citrus sunken vein disease	Country freedom OR other suitable test.
concave gum	Country freedom OR graft inoculated dweet tangor, sweet orange or <i>Citrus excelsa</i> . Grow indicators at cool temperatures 18 to 25°C.
crisacortis	Country freedom OR graft inoculated dweet tangor, sweet orange or <i>Citrus excelsa</i> . Grow indicators at cool temperatures 18 to 25°C.
gum pocket	Country freedom OR graft inoculated dweet tangor, sweet orange or <i>Citrus excelsa</i> . Grow indicators at cool temperatures 18 to 25°C.
Gummy bark	Country freedom OR SPAGE of graft inoculated citron extract. Grow citron at hot temperature 27 to 32°C.
Kassala disease	Country freedom, cuttings collected from kassala free area.
lemon sieve tube necrosis	Country freedom OR other suitable test.
shell bark of lemons	Country freedom OR other suitable test.
zonate chlorosis	Country freedom, cuttings collected from kassala free area.
Phytoplasma	
<i>Candidatus</i> phytoplasma aurantifolia	Country freedom OR graft inoculated lime. Grow indicators at cool temperatures 18 to 25°C.
rubbery wood	Country freedom OR graft inoculated sweet orange or lemon. Grow citron at hot temperature 27 to 32°C.

* Country freedom is accepted as equivalence to a treatment.

Notes:

1. The unit for testing is defined in section 2.3.2.1.
2. With prior notification, MPI 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 *Clivia*”, and are additional to those specified in sections 1, 2 and 3 of the import health standard.

GENERAL CONDITIONS:

Approved 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:

Approved 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:

Approved Countries: All

Quarantine Pests: *Anisogramma anomala*; *Monilinia fructigena*; *Phytophthora ramorum*

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

A. Whole Plants

PEQ: Level 3

Minimum Period: 3 months

- a. Conditions for *Phytophthora ramorum* (section 2.2.1.11)

B. 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:

Approved Countries: All

Quarantine Pests: *Gymnosporangium* spp.; *Xylella fastidiosa*; *Phytophthora ramorum*

Entry Conditions:

Basic; with variations and additional conditions as specified below:

A. For Cuttings and Whole Plants

PEQ: Level 2

Minimum Period: 3 months

- a. Conditions for *Gymnosporangium* rusts

Additional declaration: "*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".

- b. "The plants have been dipped in propiconazole at the rate of 0.5g a.i. per litre of water, prior to export".
- c. Conditions for *Xylella fastidiosa*(see section 2.2.1.12)
- d. Conditions for *Phytophthora ramorum* (see section 2.2.1.11)

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:

Approved 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 MPI-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 *Crocoshmia*”, and are additional to those specified in sections 1, 2 and 3 of the import health standard.

GENERAL CONDITIONS:

Approved 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."

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:

Approved 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 MPI-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 bulb certification scheme."

OR

2) For bulbs NOT produced under a MPI-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: 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 *Cycas*”.

GENERAL CONDITIONS:

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

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.

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:

Approved Countries: All

Quarantine Pests: *Phymatotrichopsis omnivora*; *Potato spindle tuber viroid*¹; *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. "The nursery stock in this consignment has been sourced from a “Pest free area” or “Pest free place of production” [choose one], free from *Potato spindle tuber viroid*".

AND

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

AND

3. "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 MPI-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 bulb certification scheme.

AND

The bulbs have been sourced from a “Pest free area” or “Pest free place of production” [choose one], free from *Potato spindle tuber viroid*".

OR

2) For bulbs NOT produced under a MPI-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,

¹ Requirements for *Potato spindle tuber viroid* will commence on 1 September 2014:

All phytosanitary certificates issued on or after 1 September 2014 must be endorsed with the correct additional declarations for *Potato spindle tuber viroid*.

and considered free of quarantine pests, and practically free from other injurious pests."
AND

The bulbs have been sourced from a "Pest free area" or "Pest free place of production"
[choose one], free from *Potato spindle tuber viroid*".

OPTION 2:

PEQ: Level 1

Minimum Period: 3 months

Additional Declaration(s):

The bulbs have been sourced from a "Pest free area" or "Pest free place of production"
[choose one], free from *Potato spindle tuber viroid*".

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".

AND

2. The dormant bulbs have been sourced from a "Pest free area" or "Pest free place of production" [choose one], free from *Potato spindle tuber viroid*".

AND

3.i) "The dormant tubers have been sourced from a "Pest free area", free from *Phymatotrichopsis omnivora*".

OR

3.ii) "The dormant bulbs have been sourced from a "Pest free place of production", free from *Phymatotrichopsis omnivora*".

AND for consignments with a "Pest free place of production" declaration for *Phymatotrichopsis omnivora*:

- 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

- 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."

AND

2. "The bulbs have been sourced from a "Pest free area" or "Pest free place of production" [choose one], free from *Potato spindle tuber viroid*".

AND

3.i) "The dormant bulbs have been sourced from a "Pest free area", free from *Phymatotrichopsis omnivora*".

OR

3.ii) "The dormant bulbs have been sourced from a "Pest free place of production", free from *Phymatotrichopsis omnivora*".

AND for consignments with a "Pest free place of production" declaration for *Phymatotrichopsis omnivora*:

- 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

- 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 sourced from a "Pest free area" or "Pest free place of production" [choose one], free from *Potato spindle tuber viroid* AND tested and found free of virus diseases."

OR

"The cultures have been derived from parent stock tested by PCR and found free from *Potato spindle tuber viroid* AND tested and found free of virus diseases."

Delphinium

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:

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

Quarantine Pests: *Ceratocystis fimbriata*, Uredinales

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

A. For Whole Plants

PEQ: Level 2

Minimum Period: 3 months

- a. Conditions for *Ceratocystis fimbriata* (section 2.2.1.8)

Note: Only applies to members of the *Erythrina* genus

- b. 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:

Approved 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:

Approved 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 $1.5^{\circ}\text{C} \pm 0.5^{\circ}\text{C}$ for 2 days, then fumigated with methyl bromide at $14\text{g}/\text{m}^3$ 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.

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 *Diascia*”, and are additional to those specified in sections 1, 2 and 3 of the import health standard.

GENERAL CONDITIONS:

Approved Countries: All

Quarantine Pests: *Potato spindle tuber viroid*¹

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

A. For Whole Plants and Cuttings:

PEQ: Level 2

Minimum Period: 3 months

Additional declaration:

"The nursery stock in this consignment has been sourced from a “Pest free area” or “Pest free place of production” [choose one], free from *Potato spindle tuber viroid*".

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 sourced from a “Pest free area” or “Pest free place of production” [choose one], free from *Potato spindle tuber viroid*".

OR

"The cultures have been derived from parent stock tested by PCR and found free from *Potato spindle tuber viroid*".

¹ Requirements for *Potato spindle tuber viroid* will commence on 1 September 2014:

All phytosanitary certificates issued on or after 1 September 2014 must be endorsed with the correct additional declarations for *Potato spindle tuber viroid*.

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:

Approved 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."

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:

Approved Countries: All

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

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

A. For Whole Plants

PEQ: Level 3

Minimum Period: 3 months

- a. Conditions for *Xylella fastidiosa* (section 2.2.1.12)

B. For 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:

Approved Countries: All

Quarantine Pests: *Chrysomphalus 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

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 *Chrysomphalus aonidum*.

or

- inspected in accordance with appropriate official procedures and found to be free of *Chrysomphalus aonidum*."

Treatment for dormant cuttings:

Dormant cuttings must be treated for regulated insects and mites as described in section 2.2.1.6 (part B) of the Basic Conditions.

Treatment for non-dormant cuttings and whole plants (excluding *Dracaena deremensis*):

Non-dormant cuttings and whole plants must be treated for regulated insects and mites on arrival in New Zealand using methyl bromide fumigation as described in section 2.2.1.6 (part B) of the Basic Conditions. Methyl bromide may be damaging to some *Dracaena* species and is carried out at the importer’s risk.

Treatment for non-dormant cuttings and whole plants of *Dracaena deremensis* ONLY:

Prior to export the nursery stock must be treated for regulated insects and mites as described in section 2.2.1.6 (part B) of the Basic Conditions. On arrival in New Zealand, the importer has the option to treat the non-dormant cuttings or whole plants using the alternate chemical treatment listed below **OR** methyl bromide fumigation as described in section 2.2.1.6 (part B) of the Basic Conditions.

1. The foliage of imported plants shall be dipped in a combination of pesticides, from two different chemical groups, as specified below in Table 1. Dipping is to occur at room temperature, and the treatment time is 2-5 minutes.
2. 10-14 days after the initial dipping treatment, the consignment must be spray treated in PEQ with a combination of pesticides from two different chemical groups as specified in Table 1.

Table 1 Alternate treatment for *Dracaena deremensis*

Chemical group	Active ingredient (a.i.)	Rate
Organophosphorous	Acephate	0.8 g a.i. per litre of dip
	Dimethoate	1.1 g a.i. per litre of dip
Carbamate	Carbaryl	1.2 g a.i. per litre of dip
Spinosyns	Spinosad	2.0 g a.i. per litre of dip

Inspection Requirements: A minimum of 600 plants are to be inspected during each growing season inspection in post-entry quarantine.

Measures for *Pantoea ananatis*:

The following measures will apply to **all** *Dracaena* species on entry into New Zealand or while in post entry quarantine.

- If plants exhibit any symptoms that may be indicative of infection with *Pantoea ananatis*, samples will be collected and submitted for diagnostic testing.
- If any plants are identified as being infected with *Pantoea ananatis*, the whole consignment must be either reshipped or destroyed, at the expense of the importer.

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:

Approved 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: *Ceratocystis fimbriata*, *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

a. Conditions for *Ceratocystis fimbriata* (section 2.2.1.8)
Note: Only applies to members of the *Eriobotrya* genus

b. 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:

Approved Countries: All

Quarantine Pests: *Ceratocystis fimbriata*, *Puccinia psidii* sensu lato (s.l.) complex (including *Uredo rangelii*); *Chrysosporthe cubensis*; *Endothia havanensis*; *Mycosphaerella parva*; *Phytophthora ramorum*

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

A. For Whole Plants:

PEQ: Level 3
Minimum Period: 6 months

- a. Conditions for *Ceratocystis fimbriata* (section 2.2.1.8)
Note: Only applies to members of the *Corymbia* and *Eucalyptus* genera
- b. Conditions for *Phytophthora ramorum* (section 2.2.1.11)

B. For Tissue Cultures:

Option 1:

- a. Additional declaration:
 - “*Puccinia psidii* s.l. complex (including *Uredo rangelii*) is not known to occur in (the country of origin) ”.

OR

 - “The tissue cultures in this consignment have been actively growing in the culture container for at least four weeks at temperatures between 15 – 23°C (59 – 73.4°F)”.
- b. The tissue cultures are subject to examination at a MPI-registered laboratory at the importers expense, prior to release to the importer.

Option 2:

PEQ: Level 2 Tissue culture laboratory
Minimum Period: 4 weeks

- a. The cultures containers are not to be opened during the quarantine period.

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:

Approved 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* sensu lato (s.l.) complex (including *Uredo rangelii*); *Xylella fastidiosa*

Entry Conditions:

Basic; with variations and additional conditions as specified below:

A. For Whole Plants:

Option 1:

PEQ: Level 2

Minimum Period: 6 months

- a. Conditions for *Xylella fastidiosa* (see section 2.2.1.12)
- b. Additional declaration: "*Puccinia psidii* s.l. complex (including *Uredo rangelii*) is not known to occur in (the country of origin)".

Option 2:

PEQ: Level 3

Minimum Period: 6 months

- a. Conditions for *Xylella fastidiosa* (see section 2.2.1.12)

B. For Tissue Cultures:

Option 1:

- a. Additional declaration:
 - “*Puccinia psidii* s.l. complex (including *Uredo rangelii*) is not known to occur in (the country of origin) ”.
- OR
- “The tissue cultures in this consignment have been actively growing in the culture container for at least four weeks at temperatures between 15 – 23°C (59 – 73.4°F)”.

Option 2:

PEQ: Level 2 Tissue culture laboratory

Minimum Period: 4 weeks

- a. The cultures containers are not to be opened during the quarantine period.

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:

Approved 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

1. 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) _____".

2. Conditions for *Xylella fastidiosa* (section 2.2.1.12)

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:

Approved 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 MPI-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:

Approved 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: *Ceratocystis fimbriata*, *Cronartium quercuum*; *Phytophthora ramorum*; Tortricidae

Entry Conditions:

Basic: with variations and additional conditions as specified below:

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

PEQ: Level 2

Minimum Period: 6 months

- a. Conditions for *Ceratocystis fimbriata* (section 2.2.1.8)
Note: Only applies to members of the *Fagus* genus
- b. Conditions for *Phytophthora ramorum* (section 2.2.1.11)
- c. Additional declaration:
"The plants have been dipped in propiconazole at the rate of 0.5g a.i. per litre of water."

OR

PEQ: Level 3

Minimum Period: 6 months

- a. Conditions for *Ceratocystis fimbriata* (section 2.2.1.8)
Note: Only applies to members of the *Fagus* genus

B. For Tissue Cultures:

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

Fagus sylvatica

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 *Fagus sylvatica*”.

GENERAL CONDITIONS:

Approved 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: *Ceratocystis fimbriata*, *Cronartium quercuum*, *Cryphonectria parasitica*, *Phytophthora ramorum*, 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

- a. Conditions for *Ceratocystis fimbriata* (section 2.2.1.8)
Note: Only applies to members of the *Fagus* genus
- b. Additional declaration for *Cryphonectria parasitica*:
 - "*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".
- c. Conditions for *Phytophthora ramorum* (section 2.2.1.11)
- d. Additional declaration: "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

- a. Conditions for *Ceratocystis fimbriata* (section 2.2.1.8)
Note: Only applies to members of the *Fagus* genus

B. For Tissue Cultures:

As for **Standard Entry Conditions for Tissue Cultures** - see Section 2.2.2, but subject to examination at a MPI registered laboratory at the Importers expense, prior to release to the Importer.

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:

Approved Countries: All

Quarantine Pests: *Ceratocystis fimbriata*, *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

- a. Conditions for *Ceratocystis fimbriata* (section 2.2.1.8)

Note: Only applies to *Ficus carica*

- b. **Additional Declaration:**

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

OR

“The *Ficus* spp. has been sourced from a pest free place of production, free from *Uredo ficina*”

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

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 MPI-accredited facilities (quarantine stations)

An offshore accredited facility is a facility that has been accredited to the Standard PIT.OS.TRA.ACPQF to undertake phytosanitary activities. For *Fortunella*, the accredited facility operator must also have an agreement with MPI 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 MPI 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 MPI 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 MPI (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 MPI-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 MPI, 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 MPI 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. Plants must be held at 18-25°C throughout the quarantine period.

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

Indicative minimum quarantine periods are:

- 6 months for *Fortunella* cuttings sourced from mother plants that have been kept in insect proof plant houses, which may be extended to 12 months to allow for testing to be completed; or
- 16 months for *Fortunella* cuttings sourced directly from open ground mother plants.

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 MPI 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 MPI (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 MPI, and to conform with the current phytosanitary requirements of MPI."

(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 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 MPI-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 MPI-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 MPI-accredited facilities

An offshore accredited facility is a facility that has been accredited to the Standard PIT.OS.TRA.ACPQF to undertake phytosanitary activities. For *Fortunella*, the accredited facility operator must also have an agreement with MPI 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 MPI 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 MPI 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 MPI (refer to the pest list).

AND

- held and tested for/classified free from specified regulated pests at a MPI-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 MPI, 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 MPI 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 MPI 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 MPI (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 MPI, and to conform with the current phytosanitary requirements of MPI."

(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 MPI-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)

Insect

Insecta

Coleoptera

Bostrichidae

Apate indistincta

shot-hole borer

Apate terebrans

shot-hole borer

Buprestidae

Agrilus alesi

flatheaded citrus borer

Agrilus auriventris

citrus flatheaded borer

Cerambycidae

Anoplophora malasiaca

white-spotted longicorn beetle

Chelidonium gibbicolle

-

Dihammus vastator

fig longhorn

Melanauster chinensis

-

Paradisterna plumifera

speckled longicorn

Promeces linearis

-

Skeletodes tetrops

longhorn beetle

Strongylurus thoracicus

pittosporum longicorn

Uracanthus cryptophagus

citrus branch borer

Chrysomelidae

Colasposoma fulgidum

bluegreen citrus nibbler

Colasposoma scutellare

-

Geloptera porosa

pitted apple beetle

Luperomorpha funesta

mulberry flea beetle

Monolepta australis

red-shouldered leaf beetle

Sebaethe fulvipennis

flea beetle

Coccinellidae

Cheilomenes lunata [Animals Biosecurity]

-

Chilocorus cacti [Animals Biosecurity]

-

Chilocorus distigma [Animals Biosecurity]

-

Chilocorus nigrita [Animals Biosecurity]

-

Exochomus flavipes [Animals Biosecurity]

-

Pentilia castanea [Animals Biosecurity]

-

Rhyzobius lophanthae [Animals Biosecurity]

-

Scymnus nanus [Animals Biosecurity]

-

Serangium parcesetosum [Animals Biosecurity]

-

Stethorus aethiops [Animals Biosecurity]

-

Stethorus histrio [Animals Biosecurity]

-

Stethorus punctata picipes [Animals Biosecurity]

-

Curculionidae

Amystax fasciatus [Animals Biosecurity]

-

Artipus sp.

-

Brachycerus citriperda

-

Callirhopalus bifasciatus

two-banded Japanese weevil

Dereodus recticollis

-

Diaprepes abbreviatus

citrus weevil

Diaprepes spp.

-

Eutinophaea bicristata

citrus leaf-eating weevil

Leptopius squalidus

fruit tree root weevil

Naupactus xanthographus

fruit tree weevil

Otiorhynchus cribricollis

cribrate weevil

Pachnaeus citri

-

Pachnaeus litus

citrus root weevil

Perperus lateralis

white-striped weevil

Prepodes spp.

-

<i>Protostrophus avidus</i>	weevil
<i>Sciobius marshalli</i>	citrus snout beetle
<i>Sympiezomias lewisi</i>	-
Lucanidae	
<i>Prosopocoilus spencei</i>	-
Scarabaeidae	
<i>Hypopholis indistincta</i>	scarab beetle
<i>Maladera matruda</i>	scarab beetle
Scolytidae	
<i>Salagena</i> sp.	-
<i>Xylosandrus germanus</i>	alnus ambrosia beetle
Diptera	
Cecidomyiidae	
<i>Contarinia citri</i>	leafcurling midge
<i>Contarinia okadae</i>	citrus flower gall midge
<i>Trisopsis</i> sp.	-
Chamaemyiidae	
<i>Leucopis alticeps</i> [Animals Biosecurity]	-
Drosophilidae	
<i>Drosophila paulistorum</i>	-
<i>Drosophila pseudoobscura</i>	-
<i>Drosophila simulans</i>	-
<i>Drosophila willistoni</i>	-
Tephritidae	
<i>Dirioxa pornia</i>	island fruit fly
Hemiptera	
Anthocoridae	
<i>Orius thripoborus</i> [Animals Biosecurity]	-
<i>Thripheps thripoborus</i> [Animals Biosecurity]	-
Coreidae	
<i>Acanthocoris striicornis</i>	larger squash bug
<i>Anoplocnemis curvipes</i>	coreid bug
<i>Leptoglossus membranaceus</i>	coreid bug
<i>Mictis profana</i>	crusader bug
<i>Paradasynus spinosus</i>	squash bug
<i>Veneza phyllopus</i>	leaf-footed bug
Lygaeidae	
<i>Nysius vinitor</i>	Rutherglen bug
Miridae	
<i>Austropeplus</i> sp.	citrus blossom bug
Pentatomidae	
<i>Antestia variegata</i>	antestia bug
<i>Antestiopsis orbitalis</i>	-
<i>Antestiopsis variegata</i>	antestia bug
<i>Biprorulus bibax</i>	spined citrus bug
<i>Glaucias subpunctatus</i>	polished green stink bug
<i>Halyomorpha mista</i>	brown-marmorated stink bug
<i>Musgraveia sulciventris</i>	bronze orange bug
<i>Plautia stali</i>	oriental stink bug
<i>Rhynchoris humeralis</i>	pentatomid bug
Unknown Hemiptera	
<i>Holopterna vulga</i>	bug
Homoptera	
Aleyrodidae	
<i>Aleurocanthus citriperdus</i>	whitefly
<i>Aleurocanthus spiniferus</i>	orange spiny whitefly
<i>Aleurocanthus</i> spp.	whiteflies
<i>Aleurocanthus woglumi</i>	citrus blackfly
<i>Aleurodicus dispersus</i>	spiralling whitefly
<i>Aleurolobus marlatti</i>	Marlatt whitefly

<i>Aleuroplatus</i> sp.	whitefly
<i>Aleurothrixus floccosus</i>	woolly whitefly
<i>Aleurotuba jelinekii</i>	-
<i>Aleurotuberculatus aucubae</i>	aucuba whitefly
<i>Bemisia citricola</i>	-
<i>Dialeurodes citri</i>	citrus whitefly
<i>Dialeurodes citrifolii</i>	cloudywinged whitefly
<i>Dialeurolonga</i> sp.	-
<i>Parabemisia myricae</i>	Japanese bayberry whitefly
<i>Siphoninus phillyreae</i>	phillyrea whitefly
Aphididae	
<i>Aphis fabae</i>	bean aphid
<i>Aulacorthum magnoliae</i>	Japanese elder aphid
Cicadellidae	
<i>Asymmetrasca decedens</i>	leafhopper
<i>Circulifer opacipennis</i>	-
<i>Circulifer tenellus</i>	beet leafhopper
<i>Cuerna costalis</i>	leafhopper
<i>Edwardsiana flavescens</i>	leafhopper
<i>Empoasca bodenheimeri</i>	-
<i>Empoasca citrusa</i>	green citrus leafhopper
<i>Empoasca decipiens</i>	green leafhopper
<i>Empoasca distinguenda</i>	-
<i>Empoasca fabae</i>	potato leafhopper
<i>Empoasca onukii</i>	tea green leafhopper
<i>Homalodisca coagulata</i>	glassy-winged sharpshooter
<i>Homalodisca lacerta</i>	-
<i>Jacobiasca lybica</i>	cotton jassid
<i>Neoliturus haematoceps</i>	leafhopper
<i>Penthimiola bella</i>	citrus leafhopper
<i>Scaphytopius nitridus</i>	leafhopper
Cicadidae	
<i>Cryptotympana facialis</i>	black cicada
<i>Meimuna opalifera</i>	elongate cicada
Coccidae	
<i>Ceroplastes floridensis</i>	Florida wax scale
<i>Ceroplastes japonicus</i>	pink wax scale
<i>Ceroplastes rubens</i>	red wax scale
<i>Ceroplastes rusci</i>	fig wax scale
<i>Coccus celatus</i>	-
<i>Coccus pseudomagnoliarum</i>	citricola scale
<i>Coccus viridis</i>	green scale
<i>Cribrolecanium andersoni</i>	white powdery scale
<i>Gascardia brevicauda</i>	white waxy scale
<i>Protopulvinaria pyriformis</i>	pyriform scale
<i>Pulvinaria aethiopica</i>	soft green scale
<i>Pulvinaria aurantii</i>	citrus cottony scale
<i>Pulvinaria cellulosa</i>	pulvinaria scale
<i>Saissetia citricola</i>	citrus string cottony scale
<i>Saissetia somereni</i>	-
Dactylopiidae	
<i>Dactylopius filamentosis</i>	-
<i>Dactylopius vastator</i>	-
Diaspididae	
<i>Aonidiella citrina</i>	yellow scale
<i>Chrysomphalus aonidium</i>	Florida red scale
<i>Chrysomphalus bifasciculatus</i>	brown scale
<i>Chrysomphalus dictyospermi</i>	dictyospermum scale
<i>Chrysomphalus pinnulifera</i>	false purple scale
<i>Ischnaspis longirostris</i>	black thread scale

<i>Lepidosaphes beckii</i>	purple scale
<i>Lepidosaphes gloverii</i>	Glover scale
<i>Parlatoria ziziphi</i>	black parlatoria scale
<i>Pseudaonidia duplex</i>	camphor scale
<i>Selenaspidus articulatus</i>	West Indian red scale
<i>Unaspis citri</i>	citrus snow scale
<i>Unaspis yanonensis</i>	Japanese citrus scale
Flatidae	
<i>Colgar peracuta</i>	-
<i>Geisha distinctissima</i>	green broad-winged planthopper
<i>Lawana conspersa</i>	green flatid planthopper
<i>Metcalfa pruinosa</i>	planthopper
Fulgoridae	
<i>Anzora unicolor</i>	-
Margarodidae	
<i>Drosicha howardi</i>	persimmon mealybug
<i>Icerya seychellarum</i>	Seychelles scale
Ortheziidae	
<i>Nipponorthezia ardisiae</i>	ensign scale
Pseudococcidae	
<i>Allococcus</i> spp.	-
<i>Ferrisia consobrina</i>	mealybug
<i>Ferrisia virgata</i>	striped mealybug
<i>Nipaecoccus vastator</i>	nipa mealybug
<i>Nipaecoccus viridis</i>	hibiscus mealybug
<i>Paracoccus burnerae</i>	spherical mealybug
<i>Planococcus kraunhiae</i>	Japanese wisteria mealybug
<i>Planococcus lilacinus</i>	citrus mealybug
<i>Planococcus minor</i>	passionvine mealybug
<i>Pseudococcus citriculus</i>	smaller citrus mealybug
<i>Pseudococcus commonus</i>	-
<i>Pseudococcus filamentosus</i>	mealybug
<i>Rastrococcus spinosus</i>	mealybug
<i>Rhizoecus kondonis</i>	Kondo mealybug
Psyllidae	
<i>Diaphorina citri</i>	citrus psyllid
<i>Trioza erytreae</i> [vector]	citrus psyllid
Ricaniidae	
<i>Scolypopa</i> sp.	-
Tropiduchidae	
<i>Tambinia</i> sp.	-
Hymenoptera	
Aphelinidae	
<i>Aphytis africanus</i> [Animals Biosecurity]	-
<i>Aphytis holoxanthus</i> [Animals Biosecurity]	-
<i>Aphytis lepidosaphes</i> [Animals Biosecurity]	-
<i>Aphytis lingnanensis</i> [Animals Biosecurity]	-
<i>Aphytis melinus</i> [Animals Biosecurity]	-
<i>Azotus platensis</i> [Animals Biosecurity]	-
<i>Cales noacki</i> [Animals Biosecurity]	-
<i>Cales orchamoplati</i> [Animals Biosecurity]	-
<i>Centrodora penthimiae</i> [Animals Biosecurity]	-
<i>Coccophagus caridei</i> [Animals Biosecurity]	-
<i>Coccophagus pulvinariae</i> [Animals Biosecurity]	-
<i>Encarsia ectophaga</i> [Animals Biosecurity]	-
<i>Encarsia lahorensis</i> [Animals Biosecurity]	-
<i>Encarsia lounsburyi</i> [Animals Biosecurity]	-
<i>Encarsia opulenta</i> [Animals Biosecurity]	-
<i>Encarsia smithi</i> [Animals Biosecurity]	-
<i>Eretmocerus serius</i> [Animals Biosecurity]	-

<i>Marietta connecta</i> [Animals Biosecurity]	-
<i>Marietta leopardina</i> [Animals Biosecurity]	-
Braconidae	
<i>Apanteles aristotalilae</i> [Animals Biosecurity]	-
<i>Biosteres longicaudatus</i> [Animals Biosecurity]	-
<i>Pholetesor ornigis</i> [Animals Biosecurity]	-
Encyrtidae	
<i>Anicetus beneficus</i> [Animals Biosecurity]	-
<i>Comperiella bifasciata</i> [Animals Biosecurity]	-
<i>Habrolepis rouxi</i> [Animals Biosecurity]	-
<i>Leptomastix dactylopii</i> [Animals Biosecurity]	parasitic wasp
<i>Metaphycus helvolus</i> [Animals Biosecurity]	-
<i>Metaphycus luteolus</i> [Animals Biosecurity]	-
<i>Metaphycus stanleyi</i> [Animals Biosecurity]	-
<i>Metaphycus varius</i> [Animals Biosecurity]	-
<i>Psyllaephagus pulvinatus</i> [Animals Biosecurity]	-
Eulophidae	
<i>Aprostocetus ceroplastae</i> [Animals Biosecurity]	-
<i>Elachertus fenestratus</i> [Animals Biosecurity]	-
<i>Tamarixia radiatus</i> [Animals Biosecurity]	-
Eupelmidae	
<i>Anastatus biproruli</i> [Animals Biosecurity]	-
Eurytomidae	
<i>Bruchophagus fellis</i>	citrus gall midge
Formicidae	
<i>Acromyrmex octospinosus</i>	leaf-cutting ant
<i>Anoplolepis braunsi</i> [Animals Biosecurity]	-
<i>Anoplolepis custodiens</i>	ant
<i>Anoplolepis steingroeveri</i> [Animals Biosecurity]	black ant
<i>Atta cephalotes</i>	leaf-cutting ant
<i>Atta sexdens</i>	-
<i>Atta texana</i>	Texas leaf-cutting ant
<i>Camponotus rufoglaucus</i>	-
<i>Crematogaster castanea</i>	-
<i>Crematogaster liengmei</i>	-
<i>Crematogaster peringueyi</i> [Animals Biosecurity]	cocktail ant
<i>Lepisiota capensis</i> [Animals Biosecurity]	-
<i>Myrmecaria natalensis</i>	-
<i>Pheidole tenuinodis</i>	ant
<i>Polyrhachis schistaceus</i>	ant
<i>Solenopsis invicta</i> [Animals Biosecurity]	red imported fire ant
<i>Tapinoma arnoldi</i>	-
<i>Technomyrmex albipes foreli</i> [Animals Biosecurity]	-
Mymaridae	
<i>Chaetomyrmex gracile</i> [Animals Biosecurity]	-
<i>Chaetomyrmex lepidum</i> [Animals Biosecurity]	-
<i>Gonatocerus incomptus</i> [Animals Biosecurity]	-
Platygasteridae	
<i>Amitus hesperidum</i> [Animals Biosecurity]	-
<i>Amitus spiniferus</i> [Animals Biosecurity]	-
<i>Fidiobia citri</i> [Animals Biosecurity]	-
Scelionidae	
<i>Trissolcus oeneus</i> [Animals Biosecurity]	-
<i>Trissolcus oenone</i> [Animals Biosecurity]	-
<i>Trissolcus ogyges</i> [Animals Biosecurity]	-
Signiphoridae	
<i>Signiphora fax</i> [Animals Biosecurity]	-
<i>Signiphora flavella</i> [Animals Biosecurity]	-
<i>Signiphora perpauca</i> [Animals Biosecurity]	-
Trichogrammatidae	

<i>Trichogramma platneri</i> [Animals Biosecurity]	-
Vespidae	
<i>Polistes</i> spp. [Animals Biosecurity]	paper wasps
Isoptera	
Termitidae	
<i>Odontotermes lokanandi</i>	termite
Lepidoptera	
Arctiidae	
<i>Lemyra imparilis</i>	mulberry tiger moth
Blastobasidae	
<i>Holcocera iceryaeella</i>	-
Cosmopterigidae	
<i>Pyroderces rileyi</i>	pink scavenger caterpillar
Geometridae	
<i>Anacamptodes fragilaria</i>	koa haole looper
<i>Ascotis selenaria reciprocaria</i>	citrus looper
<i>Gymnoscelis rufifasciata</i>	geometrid moth
<i>Hyposidra talaca</i>	-
Gracillariidae	
<i>Phyllocnistis citrella</i>	citrus leafminer
Hepialidae	
<i>Endoclita excrescens</i>	Japanese swift moth
<i>Endoclita sinensis</i>	-
Lycaenidae	
<i>Virachola isocrates</i>	pomegranate butterfly
Lymantriidae	
<i>Orgyia vetusta</i>	western tussock moth
Metarbelidae	
<i>Indarbela tetraonis</i>	stem borer
Noctuidae	
<i>Arcte coerulea</i>	fruit-piercing moth
<i>Eudocima fullonia</i>	fruit-piercing moth
<i>Helicoverpa assulta</i>	cape gooseberry budworm
<i>Helicoverpa punctigera</i>	oriental tobacco budworm
<i>Tiracola plagiata</i>	banana fruit caterpillar
<i>Xylomyges curialis</i>	noctuid moth
Nymphalidae	
<i>Charaxes jasius</i>	nymphalid butterfly
Oecophoridae	
<i>Psorosticha melanocrepida</i>	citrus leafroller
<i>Psorosticha zizyphi</i>	citrus leafroller
<i>Stathmopoda auriferella</i>	apple heliodinid
Papilionidae	
<i>Papilio aegaeus aegaeus</i>	-
<i>Papilio anactus</i>	small citrus butterfly
<i>Papilio cresphontes</i>	orange dog
<i>Papilio dardanus cenea</i>	-
<i>Papilio demodocus</i>	orange dog
<i>Papilio demoleus demoleus</i>	-
<i>Papilio helenus nicconicolens</i>	-
<i>Papilio machaon asiatica</i>	-
<i>Papilio memnon</i>	citrus swallowtail
<i>Papilio memnon thunbergii</i>	-
<i>Papilio nireus lyaeus</i>	-
<i>Papilio polytes polytes</i>	-
<i>Papilio protenor demetrius</i>	-
<i>Papilio xuthus</i>	citrus swallowtail
<i>Papilio zelicaon</i>	anise swallowtail
Psychidae	
<i>Eumeta hardenbergi</i>	-

<i>Eumeta japonica</i>	-
<i>Eumeta minuscula</i>	tea bagworm
<i>Eumeta moddermanni</i>	-
<i>Hyalarcta huebneri</i>	leaf case moth
Pyralidae	
<i>Apomyelois ceratoniae</i>	date pyralid
Tortricidae	
<i>Adoxophyes</i> sp.	-
<i>Amorbia cuneana</i>	leafroller
<i>Archips argyrospilus</i>	fruit tree leafroller
<i>Archips machlopiis</i>	leafroller
<i>Archips occidentalis</i>	leafroller
<i>Archips rosanus</i>	rose leafroller
<i>Argyrotaenia citrana</i>	orange tortrix
<i>Cacoecimorpha pronubana</i>	carnation leafroller
<i>Cryptophlebia batrachopa</i>	-
<i>Cryptophlebia leucotreta</i>	false codling moth
<i>Homona magnanima</i>	oriental tea tortrix
<i>Isotenes miserana</i>	orange fruitborer
<i>Platynota stultana</i>	omnivorous leafroller
<i>Tortrix capensana</i>	tortricid moth
Yponomeutidae	
<i>Prays citri</i>	citrus flower moth
<i>Prays parilis</i>	citrus flower moth
Neuroptera	
Chrysopidae	
<i>Chrysopa oculata</i> [Animals Biosecurity]	-
Coniopterygidae	
<i>Coniopteryx vicina</i> [Animals Biosecurity]	-
<i>Conwentzia barretti</i> [Animals Biosecurity]	-
Orthoptera	
Acrididae	
<i>Zonocerus elegans</i>	elegant grasshopper
Gryllidae	
<i>Ornebius kanetataki</i>	cricket
Tettigoniidae	
<i>Caedicia</i> sp.	-
<i>Holochlora japonica</i>	Japanese broadwinged katydid
<i>Microcentrum retinerve</i>	smaller angular-winged katydid
<i>Scudderia furcata</i>	fork-tailed bush katydid
Psocoptera	
Archipsocidae	
<i>Archipsocus</i> sp.	bark louse
Thysanoptera	
Aeolothripidae	
<i>Franklinothrips vespiformis</i> [Animals Biosecurity]	-
Thripidae	
<i>Chaetanaphothrips orchidii</i>	banana rust thrips
<i>Leptothrips mali</i>	black hunter thrips
<i>Scirtothrips aurantii</i>	citrus thrips
<i>Scirtothrips citri</i>	citrus thrips
<i>Scirtothrips dorsalis</i>	chilli thrips
<i>Scirtothrips mangiferae</i>	mango thrips
<i>Scolothrips sexmaculatus</i> [Animals Biosecurity]	-
<i>Taeniothrips kellyanus</i>	-
<i>Taeniothrips</i> sp.	-
<i>Thrips coloratus</i>	thrips
<i>Thrips flavus</i>	flower thrips
<i>Thrips palmi</i>	palm thrips
Unknown Insecta	

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] -**Tarsonemidae***Tarsonemus cryptocephalus* [Animals Biosecurity] -**Tenuipalpidae***Brevipalpus chilensis* false spider mite*Brevipalpus lewisi* bunch mite*Brevipalpus obovatus* privet mite*Tenuipalpus emeticae* [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* 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	
<i>Achatina immaculata</i>	-
<i>Lissachatina immaculata</i>	snail
Bradybaenidae	
<i>Acusta despecta sieboldiana</i>	snail
Subulinidae	
<i>Rumina decollata</i>	snail
Urocyclidae	
<i>Urocyclus flavescens</i>	-
<i>Urocyclus kirkii</i>	-
Fungus	
Ascomycota	
Diaporthales	
Valsaceae	
<i>Diaporthe rudis</i> (anamorph <i>Phomopsis rudis</i>)	phomopsis canker
Dothideales	
Elsinoaceae	
<i>Elsinoe australis</i>	sweet orange scab
Capnodiaceae	
<i>Capnodium citri</i>	sooty mould
Didymosphaeriaceae	
<i>Didymosphaeria</i> sp.	--
Mycosphaerellaceae	
<i>Guignardia citricarpa</i> (anamorph <i>Phyllosticta citricarpa</i>) [black spot strain]	citrus black spot
<i>Mycosphaerella citri</i> (anamorph <i>Stenella citri-grisea</i>)	rind blotch
<i>Mycosphaerella horii</i>	greasy spot
Patellariales	
Patellariaceae	
<i>Rhytidhysteron rufulum</i>	--
Saccharomycetales	
Saccharomycetaceae	
<i>Debaryomyces hansenii</i>	-
<i>Galactomyces citri-aurantii</i> (anamorph <i>Geotrichum citri-aurantii</i>)	sour rot
Basidiomycota: Basidiomycetes	
Boletales	
Coniophoraceae	
<i>Coniophora eremophila</i>	brown wood rot
Basidiomycota: Teliomycetes	
Septobasidiales	
Septobasidiaceae	
<i>Septobasidium pseudopedicellatum</i>	felt fungus
Mitosporic Fungi	
Unknown Mitosporic Fungi	
Unknown Mitosporic Fungi	
<i>Sphaceloma fawcettii</i> var. <i>scabiosa</i>	-
Mitosporic Fungi (Coelomycetes)	
Sphaeropsidales	
Sphaerioidaceae	
<i>Macrophoma mantegazziana</i>	-
<i>Phoma erratica</i> var. <i>mikan</i>	--
<i>Phoma tracheiphila</i>	mal secco
<i>Phomopsis</i> sp.	rot
<i>Septoria</i> spp.	-
<i>Sphaeropsis tumefaciens</i>	stem gall
Unknown Coelomycetes	
Unknown Coelomycetes	

<i>Aschersonia placenta</i> [Animals Biosecurity]	--
<i>Gloeosporium follicolum</i>	fruit rot
Mitosporic Fungi (Hyphomycetes)	
Hyphomycetales	
Dematiaceae	
<i>Alternaria limicola</i>	-
<i>Alternaria pellucida</i>	--
<i>Cercospora microsora</i>	-
<i>Phaeoramularia angolensis</i>	cercospora spot
<i>Stemphylium rosarium</i>	--
<i>Ulocladium obovoideum</i>	ulocladium rot
Unknown Hyphomycetes	
Unknown Hyphomycetes	
<i>Aureobasidium</i> sp.	-
<i>Hirsutella thompsonii</i> [Animals Biosecurity]	--
<i>Isaria</i> sp. [Animals Biosecurity]	-
<i>Oidium tingitaninum</i>	powdery mildew
<i>Sporobolomyces roseus</i>	--
<i>Stenella</i> sp.	--
Zygomycota: Zygomycetes	
Glomales	
Glomaceae	
<i>Glomus etunicatum</i> [Animals Biosecurity]	--
Mucorales	
Syncephalastraceae	
<i>Syncephalastrum racemosum</i>	--
Bacterium	
Bacterium family unknown	
<i>Liberobacter africanum</i>	citrus greening bacterium
<i>Liberobacter asiaticum</i>	citrus greening bacterium
<i>Liberobacter</i> sp.	citrus greening bacterium
<i>Spiroplasma citri</i>	citrus stubborn
Pseudomonadaceae	
<i>Burkholderia cepacia</i>	sour skin
<i>Xanthomonas axonopodis</i> pv. <i>citri</i>	citrus canker
<i>Xanthomonas campestris</i> pv. <i>aurantifolii</i>	-
<i>Xanthomonas campestris</i> pv. <i>citrumelo</i>	citrus bacterial spot
<i>Xylella fastidiosa</i>	Pierce's disease
<i>Xylella fastidiosa</i> pv. <i>citri</i>	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	-
satsuma dwarf nepovirus [Natsudaidai dwarf strain]	-
xyloporosis viroid	-
yellow vein clearing of lemon	-

Phytoplasma

<i>Candidatus</i> 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 impietratura disease	-
citrus sunken vein disease	-
concave gum	-
crisacortis	-
gum pocket	-
gummy bark	-
kassala disease	-
lemon sieve tube necrosis	-
shell bark of lemons	-
zonate chlorosis	-

Inspection, Testing and Treatment Requirements for *Fortunella**

ORGANISM TYPES	MPI ACCEPTABLE METHODS
Insects	Visual inspection AND approved insecticide treatments (Refer to section 2.2.1.6 of the basic conditions).
Mites	Visual inspection AND approved miticide treatments (Refer to section 2.2.1.6 of the basic conditions).
Fungus	Country freedom OR growing season inspection for symptom expression.
Bacterium	
<i>Burkholderia cepacia</i>	Growing season inspection for symptom expression.
<i>Liberobacter africanum</i>	Country freedom OR graft-inoculated sweet oranges, orange pineapple, 18 to 25°C.
<i>Liberobacter asiaticum</i>	Country freedom OR graft-inoculated sweet oranges, orange pineapple, 18 to 25°C.
<i>Spiroplasma citri</i>	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 (> 30°C) and incubate cultures at 32°C.
<i>Xanthomonas axonopodis</i> pv. <i>citri</i>	Country freedom/shoot tip grafting bioassay/detached leaf bioassay/ PCR OR suitable citrus indicator.
<i>Xanthomonas campestris</i> pv. <i>aurantifolii</i>	Country freedom/shoot tip grafting bioassay/detached leaf bioassay/ PCR OR suitable citrus indicator.
<i>Xanthomonas campestris</i> pv. <i>citrumelo</i>	Country freedom/shoot tip grafting bioassay/detached leaf bioassay/ PCR OR suitable citrus indicator.
<i>Xylella fastidiosa</i>	Country freedom/shoot tip grafting bioassay/ PCR/ELISA OR suitable citrus indicator.
<i>Xylella fastidiosa</i> pv. <i>citri</i>	Country freedom/shoot tip grafting bioassay PCR/ELISA OR suitable citrus indicator.
Virus	
citrus chlorotic dwarf	Country freedom OR graft inoculated rough lemon at cool temperatures 18 to 25°C.
citrus infectious variegation ilarvirus	Country freedom OR graft inoculated citron, sour orange, lemon, cidro etrog. Grow indicators at cool temperatures 18 to 25°C.
citrus infectious variegation ilarvirus [crinkly leaf strain]	Country freedom OR graft inoculated citron, sour orange, lemon, cidro etrog. Grow indicators at cool temperatures 18 to 25°C.
citrus leaf rugose ilarvirus	Country freedom OR graft inoculated Mexican lime or sour orange. Grow indicators at cool temperatures 18 to 25°C.
citrus leathery leaf virus	Country freedom OR Rangpur lime. Grow indicators at cool temperatures 18 to 25°C.
citrus leprosis rhabdovirus	Country freedom OR graft inoculated sweet orange. Grow indicators at cool temperatures 18 to 25°C.
citrus mosaic virus	Country freedom OR graft inoculated satsums. Grow indicators at cool temperatures 18 to 25°C.
citrus ringspot virus	Country freedom OR graft inoculated dweet tangor, sweet orange, mandarin (Parson's Special). Grow indicators at cool temperatures 18 to 25°C.
citrus tatter leaf capillovirus	Country freedom OR graft inoculated Rusk citrange, rough lemon, <i>Citrus excelsa</i> , citrange (Troyer). Grow indicators at cool temperatures 18 to 25°C.
citrus tristeza closterovirus [strains not in New Zealand]	Country freedom OR ELISA, graft inoculated Mexican lime, sour orange and <i>Citrus excelsa</i> . Grow indicators at cool temperatures 18 to 25°C.
citrus yellow mosaic badnavirus	Country freedom OR graft inoculated sweet orange, sour orange and citron.
citrus yellow mottle virus	Country freedom OR other suitable test.
Indian citrus mosaic badnavirus	Country freedom OR graft inoculated sweet orange at hot temperature 27 to 32°C.
navel orange infectious mottling virus	Country freedom OR graft inoculated Satsums. Grow indicators at cool temperatures 18 to 25°C.

ORGANISM TYPES	MPI ACCEPTABLE METHODS
satsuma dwarf nepovirus	Country freedom OR graft inoculated satsums. Grow indicators at cool temperatures 18 to 25°C.
satsuma dwarf nepovirus [Natsudaikai dwarf strain]	Country freedom OR graft inoculated satsums. Grow indicators at cool temperatures 18 to 25°C.
yellow vein clearing of lemon	Country freedom OR graft inoculated Mexican lime or sour orange. Grow indicators at cool temperatures 18 to 25°C.
Viroid	
citrus cachexia viroid	Country freedom OR SPAGE and PCR on graft inoculated citron extract. Grow citron at hot temperature 27 to 32°C.
citrus variable viroid	Country freedom OR SPAGE and PCR on graft inoculated citron extract. Grow citron at hot temperature 27 to 32°C.
citrus viroids (groups I-IV)	Country freedom OR SPAGE and PCR on graft inoculated citron extract. Grow citron at hot temperature 27 to 32°C.
dwarfing factor viroid	Country freedom OR SPAGE and PCR on graft inoculated citron extract. Grow citron at hot temperature 27 to 32°C.
xyloporosis viroid	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.
Disease of unknown aetiology	
Australian citrus dieback	Country freedom OR other suitable test
blind pocket	Country freedom OR graft inoculated dweet tangor, sweet orange or Citrus excelsa. Grow indicators at cool temperatures 18 to 25°C.
bud union disease	Country freedom OR other suitable test
citrus blight disease	None (cuttings collected from blight free area). Inspect source tree after 2 years before releasing from quarantine.
citrus fatal yellows	Country freedom OR graft inoculated Citrus macrophylla.
citrus impietratura disease	Country freedom OR graft inoculated dweet tangor or sweet orange. Growth indicators at cool temperatures 18 to 25°C.
citrus sunken vein disease	Country freedom OR other suitable test.
concave gum	Country freedom OR graft inoculated dweet tangor, sweet orange or Citrus excelsa. Grow indicators at cool temperatures 18 to 25°C.
cristacortis	Country freedom OR graft inoculated dweet tangor, sweet orange or Citrus excelsa. Grow indicators at cool temperatures 18 to 25°C.
gum pocket	Country freedom OR graft inoculated dweet tangor, sweet orange or Citrus excelsa. Grow indicators at cool temperatures 18 to 25°C.
Gummy bark	Country freedom OR SPAGE of graft inoculated citron extract. Grow citron at hot temperature 27 to 32°C.
Kassala disease	Country freedom, cuttings collected from kassala free area.
lemon sieve tube necrosis	Country freedom OR other suitable test.
shell bark of lemons	Country freedom OR other suitable test.
zonate chlorosis	Country freedom, cuttings collected from kassala free area.
Phytoplasma	
<i>Candidatus</i> phytoplasma aurantifolia	Country freedom OR graft inoculated lime. Grow indicators at cool temperatures 18 to 25°C.
rubbery wood	Country freedom OR graft inoculated sweet orange or lemon. Grow citron at hot temperature 27 to 32°C.

* Country freedom is accepted as equivalence to a treatment.

Notes:

1. The unit for testing is defined in section 2.3.2.1.
2. With prior notification, MPI will accept other internationally recognised testing methods.

Fragaria

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 *Fragaria*”, and are additional to those specified in sections 1, 2 and 3 of the import health standard.

1. Type of *Fragaria* nursery stock approved for entry into New Zealand

Cuttings (runner tips and stem cuttings only); Plants in tissue culture

Fragaria can be imported into Level 2 post entry quarantine from MPI-accredited facilities, or into Level 3 post entry quarantine from non-accredited facilities.

2. Pests of *Fragaria*

Refer to the pest list.

3. Entry conditions for:

3.1 *Fragaria* cuttings and tissue culture from offshore MPI-accredited facilities in any country

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

(i) Documentation

Phytosanitary certificate: a completed phytosanitary certificate issued by the NPPO of the exporting country must accompany all *Fragaria* 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 MPI have been undertaken.

The *Fragaria* 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 MPI and the [name of the MPI-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 *Fragaria* 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 MPI and the [name of the MPI-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 *Fragaria* nursery stock must be imported under permit into post-entry quarantine in a level 2 quarantine facility accredited to the 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 6 months 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 *Fragaria* 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 *Fragaria* 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 MPI have been undertaken.

The *Fragaria* 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. No additional declarations are required.

(iv) *Post-entry quarantine*

PEQ: All *Fragaria* nursery stock must be imported under permit into post-entry quarantine in a level 3 quarantine facility accredited to the 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 *Fragaria*

REGULATED PESTS (actionable)

Insect

Insecta

Coleoptera

Attelabidae

Rhynchites germanicus

strawberry rhynchites

Bruchidae

Zabrotes arenarius

strawberry weevil

Cantharidae

Chauliognathus lugubris

soldier beetle

Carabidae

Calathus fuscipes

ground beetle

Harpalus affinis

strawberry seed beetle

Harpalus rufipes

strawberry seed beetle

Nebria brevicollis

common black ground beetle

Pterostichus cupreus

strawberry ground beetle

Pterostichus madidus

strawberry ground beetle

Pterostichus melanarius

strawberry ground beetle

Chrysomelidae

Altica caerulea

leaf beetle

Chaetocnema concinna

leaf feeding beetle

Colaspis flavida

grape colaspis

Galeruca tanacetii

strawberry leaf beetle

Galerucella grisescens

strawberry leaf beetle

Galerucella tenella

strawberry leaf beetle

Haltica corrusca

flea beetle

Haltica pagana

flea beetle

Paria fragariae

strawberry rootworm

Systema frontalis

flea beetle

Curculionidae

Anthonomus rubi

strawberry blossom weevil

Anthonomus signatus

strawberry bud weevil

Apirocalus spp.

weevils

Barypeithes pellucidus

strawberry weevil

Cleonus kirbyi

radish weevil

Conotrachelus nenuphar

plum weevil

Donus salviae

strawberry weevil

Dyslobus decoratus

decorated strawberry root weevil

Dyslobus ursinus

western strawberry root weevil

Dyslobus wilcoxi

Lacomb strawberry root weevil

Geoderces spp.

root weevil

Haplidia etrusca

root weevil

Hypera brunneipennis

Egyptian alfalfa weevil

Myllocerus undecimpustulatus

grey weevil

Nemocestes fragariae

strawberry root weevil

Nemocestes incomptus

woods weevil

Nemocestes longulus

strawberry root weevil

Nemocestes sordidus

strawberry root weevil

Orthorhinus aethops

weevil

Otiorhynchus armatus

strawberry root weevil

Otiorhynchus clavipes

red-legged weevil

Otiorhynchus cribricollis

cribrate weevil

Otiorhynchus meridionalis

strawberry root weevil

Otiorhynchus rotundatus

strawberry root weevil

Otiorhynchus rugifrons

strawberry root weevil

Otiorhynchus singularis

strawberry root weevil

<i>Panscopus torpidus</i>	root weevil
<i>Peritelopsis globiventris</i>	grey weevil
<i>Plinthodes taeniatus</i>	root weevil
<i>Polydrusus cervinus</i>	weevil
<i>Polydrusus sericeus</i>	green leaf weevil
<i>Rhadinosomus lacordairei</i>	thin strawberry weevil
<i>Rhinaria perdix</i>	strawberry weevil
<i>Rhynchites germanicus</i>	strawberry rhynchites
<i>Sciaphilus asperatus</i>	strawberry root weevil
<i>Sciopithes obscurus</i>	obscure root weevil
<i>Sitona hispidulus</i>	root weevil
<i>Strophomorpha porcellus</i>	weevil
<i>Thricolepis inornata</i>	root weevil
<i>Trigonoscuta pilosa</i>	root weevil
<i>Tyloderma fragariae</i>	strawberry crown borer
Elateridae	
Agriotes spp. (species not in New Zealand)	click beetles
Nitidulidae	
<i>Carpophilus fumatus</i>	sap beetle
<i>Glischrochilus hortensis</i>	sap beetle
<i>Lobiopa insularis</i>	strawberry borer
<i>Stelidota</i> spp.	sap beetles
<i>Stelidota geminata</i>	strawberry sap beetle
Scarabaeidae	
<i>Anoplognathus porosus</i>	Christmas beetle
<i>Cetonia</i> spp.	chafers
<i>Cyclocephala borealis</i>	northern masked chafer
<i>Hoplia</i> spp.	white grubs
<i>Lepidiota frenchi</i>	French's cane grub
<i>Melolontha melolontha</i>	cockchafer
<i>Metanastes vulgivagus</i>	black beetle
<i>Phyllopertha horticola</i>	garden chafer
<i>Phyllophaga decimlineata</i>	ten-lined June beetle
<i>Phyllophaga perversa</i>	western ten-lined June beetle
<i>Popillia japonica</i>	Japanese beetle
<i>Repsimus aeneus</i>	white grub
<i>Rhopaea magnicornis</i>	large pasture scarab
<i>Serica</i> spp.	white grubs
<i>Sericesthis geminata</i>	priunose scarab
<i>Sericesthis nigrolineata</i>	dusky pasture scarab
Scolytidae	
<i>Poecilips cardamomi</i>	bark beetle
Silphidae	
<i>Heterosilpha aenescens</i>	carrion beetle
Collembola	
Sminthuridae	
<i>Bourletiella arvalis dorsobscura</i>	garden springtail
<i>Sminthurus multidentatus</i>	garden springtail
Diptera	
Agromyzidae	
<i>Agromyza fragariae</i>	strawberry leafminer
<i>Agromyza spiraeae</i>	rose leafminer
Tipulidae	
<i>Tipula</i> spp	leatherjackets
Hemiptera	
Anthocoridae	
<i>Orius laevigatus</i>	plant bug
Lygaeidae	
<i>Euander lacertosus</i>	lygaeid bug
<i>Nysius clevelandensis</i>	grey cluster bug

<i>Nysius spp.</i>	bugs
<i>Nysius vinitor</i>	Rutherglen bug
Miridae	
<i>Calocoris hobartensis</i>	capsid
<i>Lygocoris pabulinus</i>	common green capsid
<i>Lygus elisus</i>	pale legume bug
<i>Lygus hesperus</i>	tarnished plant bug
<i>Lygus lineolaris</i>	tarnished plant bug
<i>Lygus rugulipennis</i>	tarnished plant bug
<i>Plagiognathus arbustorum</i>	stink bug
<i>Plagiognathus chrysanthemi</i>	stink bug
<i>Scolopostethus spp.</i>	plant bugs
Pentatomidae	
<i>Acrosternum hilare</i>	green stink bug
<i>Dolycoris baccarum</i>	stink bug
Pyrrhocoridae	
<i>Dindymus versicolor</i>	harlequin bug
Homoptera	
Aleyrodidae	
<i>Aleyrodes lonicerae</i>	strawberry whitefly
<i>Trialeurodes fernaldi</i>	whitefly
<i>Trialeurodes packardi</i>	strawberry whitefly
<i>Trialeurodes ruborum</i>	whitefly
Aphididae	
<i>Acyrtosiphon malvae rogersii</i>	strawberry aphid
<i>Amphorophora agathonica</i>	strawberry aphid
<i>Aphis fabae</i>	bean aphid
<i>Aphis forbesi</i>	strawberry root aphid
<i>Aphis gossypii</i> [vector]	cotton aphid
<i>Aphis rubifolii</i>	raspberry aphid
<i>Aulacorthum solani</i> [vector]	foxglove aphid
<i>Chaetosiphon jacobi</i>	strawberry aphid
<i>Chaetosiphon minus</i>	lesser strawberry aphid
<i>Chaetosiphon tetrarhodum</i> [vector]	strawberry aphid
<i>Chaetosiphon thomasi</i>	strawberry aphid
<i>Fimbriaphis fimbriata</i>	rose aphid
<i>Fimbriaphis wakibae</i>	rose aphid
<i>Macrosiphum pelargonii</i>	rose aphid
<i>Macrosiphum rosae</i> [vector]	rose aphid
<i>Myzaphis rosarum</i> [vector]	lesser rose aphid
<i>Myzus ascalonicus</i> [vector]	shallot aphid
<i>Myzus ornatus</i> [vector]	ornate aphid
<i>Myzus persicae</i> [vector]	green peach aphid
<i>Rhodobium porosum</i>	aphid
Aphrophoridae	
<i>Aphrophora alni</i>	spittlebug
<i>Aphrophora permutata</i>	rhubarb spittlebug
Cercopidae	
<i>Cercopis vulnerata</i>	red and black froghopper
<i>Emelyanoviana mollicula</i>	spittlebug
<i>Evacanthus interruptus</i>	spittlebug
<i>Philaenus leucophthalmus</i>	spittlebug
Cicadellidae	
<i>Aphrodes bicinctus</i>	strawberry leafhopper
<i>Apogonalia grossa</i>	leafhopper
<i>Coelidia olitoria</i>	leafhopper
<i>Edwardsiana spp.</i>	leafhoppers
<i>Empoasca fabae</i>	potato leafhopper
<i>Erythroneura elegantula</i>	western grape leafhopper
<i>Euscelis spp.</i>	leafhoppers

<i>Macrosteles spp.</i>	leafhoppers
<i>Scaphytopius acutus</i>	leafhopper
<i>Zygina schneideri</i>	leafhopper
Pseudococcidae	
<i>Chorizococcus arecae</i>	mealybug
<i>Dysmicoccus brevipes</i>	pineapple mealybug
<i>Planococcus citri</i>	citrus mealybug
<i>Rhizoecus kondonis</i>	Kondo mealybug
Hymenoptera	
Tenthredinidae	
<i>Allantus calceatus</i>	sawfly
<i>Allantus cinctus</i>	curled rose sawfly
<i>Cladius pectinicornis</i>	antler sawfly
Lepidoptera	
Gelechiidae	
<i>Aristotelia fragariae</i>	strawberry crown miner
<i>Compsolechia fragariella</i>	western strawberry leafroller
Geometridae	
<i>Ascotis selenaria</i>	mugwort looper
Hepialidae	
<i>Hepialus lupulinus</i>	swift moth
Noctuidae	
<i>Agrotis spp.</i> (species not in New Zealand)	cutworms
<i>Agrotis munda</i>	brown cutworm
<i>Agrotis segetum</i>	turnip moth
<i>Amphipoea interoceanica</i>	strawberry cutworm
<i>Helicoverpa punctigera</i>	oriental tobacco budworm
<i>Helicoverpa zea</i>	bollworm
<i>Hydraecia interoceanica</i>	noctuid moth
<i>Noctua pronuba</i>	large yellow underwing
<i>Orthosia hibisci</i>	speckled green fruitworm
<i>Peridroma saucia</i>	pearly underwing moth
<i>Phlogophora meticulosa</i>	angleshades moth
<i>Spodoptera exigua</i>	lesser armyworm
<i>Spodoptera sunia</i>	cluster caterpillar
<i>Xestia c-nigrum</i>	spotted cutworm
Psychidae	
<i>Hyalarcta huebneri</i>	leaf case moth
Pyralidae	
<i>Loxostege spp.</i>	pyralid moths
<i>Udea rubigalis</i>	celery leaftier
Sesiidae	
<i>Synanthedon bibionipennis</i>	strawberry crown moth
Tortricidae	
<i>Acleris comariana</i>	strawberry tortrix moth
<i>Ancylis comptana</i>	strawberry leafroller
<i>Ancylis fragariae</i>	strawberry leafroller
<i>Argyrotaenia citrana</i>	orange tortrix
<i>Cacoecimorpha pronubana</i>	carnation leafroller
<i>Choristoneura lafauryana</i>	strawberry leafroller
<i>Choristoneura rosaceana</i>	oblique-banded leafroller
<i>Claremontia confusa</i>	leafroller
<i>Clepsis busckana</i>	cyclamen leafroller
<i>Clepsis spectrana</i>	straw coloured tortrix
<i>Cnephasia asseclana</i>	leafroller
<i>Cnephasia longana</i>	omnivorous leaftier
<i>Cnephasia stephensiana</i>	leaftier
<i>Compsolechia fragariella</i>	western strawberry leafroller
<i>Cryptoptila immersana</i>	ivy leafroller
<i>Epiphyas spp.</i>	leafrollers

<i>Lozotaenia forsterana</i>	leafroller
<i>Olethreutes lacunana</i>	fruit tree tortrix
<i>Olethreutes olivaceana</i>	fruit tree tortrix
<i>Pandemis dumetana</i>	fruit tree tortrix
<i>Platynota stultana</i>	omnivorous leafroller
<i>Ptycholoma peritana</i>	garden tortrix
<i>Sparganothis sulfureana</i>	blueberry leafroller
Orthoptera	
Acrididae	
<i>Phaulacridium vittatum</i>	wingless grasshopper
Gryllotalpidae	
<i>Gryllotalpa africana</i>	African mole cricket
<i>Gryllotalpa gryllotalpa</i>	mole cricket
<i>Scapteriscus aletus</i>	southern mole cricket
<i>Scapteriscus vicinus</i>	tawny mole cricket
Pyrgomorphidae	
<i>Atractomorpha crenaticeps</i>	grasshopper
Thysanoptera	
Thripidae	
<i>Scirtothrips dorsalis</i>	chilli thrips
<i>Scolothrips sexmaculatus</i>	
<i>Thrips atratus</i>	carnation thrips
<i>Thrips major</i>	rose thrips
Mites	
Arachnida	
Acarina	
Diptilomiopidae	
<i>Diptacus fragarifoliae</i>	false spider mite
Tetranychidae	
<i>Tetranychus kanzawai</i>	kanzawaii mite
<i>Tetranychus lobustus</i>	strawberry spider mite
<i>Tetranychus neocalendonicus</i>	Mexican spider mite
<i>Tetranychus pacificus</i>	Pacific spider mite
Nematodes	
Adenophorea	
Dorylaimida	
Longidoridae	
<i>Longidorus elongatus</i> [vector]	-
<i>Longidorus sylphus</i>	needle nematode
<i>Paralongidorus maximus</i>	needle nematode
<i>Xiphinema americanum</i> [Vector]	dagger nematode
<i>Xiphinema chambersi</i>	dagger nematode
<i>Xiphinema diversicaudatum</i> [vector]	dagger nematode
Secernentea	
Tylenchida	
Aphelenchoididae	
<i>Aphelenchoides besseyi</i>	rice white-tip nematode
Belonolaimidae	
<i>Belonolaimus gracilis</i>	sting nematode
Criconematidae	
<i>Criconemoides curvatum</i>	ring nematode
<i>Criconemoides lobatum</i>	ring nematode
Dolichodoridae	
<i>Tylenchorhynchus claytoni</i>	tobacco stunt nematode
Heteroderidae	
<i>Heterodera</i> spp.	cyst nematode
Hoplolaimidae	
<i>Hoplolaimus</i> spp.	crown-headed lance nematode

<i>Helicotylenchus microlobus</i>	spiral nematode
<i>Rotylenchulus buxophilus</i>	reniform nematode
<i>Rotylenchulus goodeyi</i>	reniform nematode
<i>Scutellonema brachyurus</i>	spiral nematode
Paratylenchidae	
<i>Paratylenchus macrophallus</i>	pin nematode
Pratylenchidae	
<i>Pratylenchus brachyurus</i>	root lesion nematode
<i>Pratylenchus coffeae</i>	coffee root lesion nematode
<i>Pratylenchus loosi</i>	root lesion nematode
<i>Pratylenchus scribneri</i>	Scribner's root lesion nematode
<i>Pratylenchus zaeae</i>	corn root lesion nematode
<i>Radopholus similis</i>	burrowing nematode
Myriapod	
Diplopoda	
Polydesmida	
Xystodesmidae	
<i>Pleuroloma flavipes</i>	millipede
Molluscs	
Gastropoda	
Stylommatophora	
Helicidae	
<i>Trichia striolata</i>	strawberry snail
Fungi	
Ascomycota	
Dothideales	
Mycosphaerellaceae	
<i>Mycosphaerella louisianae</i>	purple leaf spot
Eurotiales	
Trichocomaceae	
<i>Byssochlamys fulva</i>	byssochlamys rot
Hypocreales	
Hypocreaceae	
<i>Schizoparme straminea</i> (anamorph <i>Coniella castaneicola</i>)	schizoparme fruit rot
Leotiales	
Leotiaceae	
<i>Discohainesia oenotherae</i> (anamorph <i>Hainesia lythri</i>)	leaf spot
Basidiomycota: Basidiomycetes	
Agaricales	
Tricholomataceae	
<i>Armillaria bulbosa</i>	armillaria root rot
<i>Armillaria mellea</i> (anamorph <i>Rhizomorpha subcorticalis</i>)	armillaria root rot
<i>Armillaria tabescens</i>	armillaria root rot
Ceratobasidiales	
Ceratobasidiaceae	
<i>Ceratobasidium anceps</i> (anamorph <i>Sclerotium deciduum</i>)	leaf rot
<i>Rhizoctonia fragariae</i>	black root rot
Chytridiomycota	
Chytridiales	
Olpidiaceae	
<i>Olpidium brassicae</i> [vector]	Black root
Basidiomycota: Teliomycetes	
Uredinales	
Pucciniaceae	

<i>Phragmidium mexicana</i>	
<i>Phragmidium potentiallae</i>	leaf rust
Chytridiomycota	
Chytridiales	
Synchytriaceae	
<i>Synchytrium fragariae</i>	root gall
Mitosporic Fungi (Agonomycetes)	
Agonomycetales	
Unknown Agonomycetales	
<i>Rhizoctonia fragariae</i>	fruit and root rot
Mitosporic Fungi (Coelomycetes)	
Sphaeropsidales	
Leptostromataceae	
<i>Kabatia fragariae</i>	leaf spot
Sphaerioidaceae	
<i>Coniella fragariae</i>	flower spot
<i>Phyllosticta fragaricola</i>	phyllosticta leaf spot
<i>Rhabdospora fragariae</i>	leaf spot
<i>Septoria fragariae</i>	septoria spot
<i>Septoria fragariaecola</i>	septoria spot
<i>Stagonospora fragariae</i>	stagonospora
Unknown Coelomycetes	
Unknown Coelomycetes	
<i>Colletotrichum spp.</i> (species not in New Zealand)	
<i>Glomerella cingulata</i> (anamorph <i>Colletotrichum gloeosporioides</i>)	strawberry anthracnose
<i>Marssonina canadensis</i>	leaf scorch
<i>Marssonina pakistanica</i>	leaf scorch
<i>Marssonina potentillae</i>	leaf scorch
<i>Pestalotia longisetula</i>	leaf spot
<i>Pilidiella quercola</i>	schizoparme fruit rot
Mitosporic Fungi (Hyphomycetes)	
Hyphomycetales	
Dematiaceae	
<i>Cercospora fragariae</i>	leaf spot
<i>Cercospora vexans</i>	cercospora leaf spot
<i>Idriella lunata</i>	root rot
Moniliaceae	
<i>Ramularia fragariae</i>	ramularia leaf spot
<i>Verticillium albo-atrum</i> [severe strain]	progressive wilt
Tuberculariales	
Tuberculariaceae	
<i>Fusarium oxysporum</i> f. sp. <i>fragariae</i>	stub wilt
Oomycota	
Peronosporales	
Peronosporaceae	
<i>Peronospora fragariae</i>	downy mildew
Pythiales	
Pythiaceae	
<i>Pythium debaryanum</i>	root rot
<i>Pythium dissotocum</i>	root rot
<i>Pythium hypogynum</i>	root rot
<i>Pythium perniciosum</i>	root and stem rot
<i>Pythium sylvaticum</i>	root rot
Zygomycota: Zygomycetes	
Mucorales	
Mucoraceae	
<i>Mucor recurvus</i>	mucor rot
<i>Rhizopus spp.</i>	

Bacteria

-
-

<i>Erwinia pyrifoliae</i>	
<i>Ralstonia solanacearum</i> (Race 2)	moko disease
Strawberry marginal chlorosis [<i>Candidatus</i> <i>phlomobacter fragariae</i> ']	
Strawberry rickettsia yellows	
<i>Xanthomonas arboricola</i> pv. <i>fragariae</i>	bacterial leaf blight
<i>Xanthomonas fragariae</i>	angular leaf spot
<i>Xylella fastidiosa</i> * [<i>Fragaria vesca</i> only]	Pierce's disease

Viruses

-
-

<i>Fragaria chiloensis</i> latent virus [strains not in New Zealand]	-
<i>Raspberry ringspot virus</i>	-
<i>Strawberry chlorotic fleck virus</i>	-
<i>Strawberry latent C virus</i>	-
<i>Strawberry latent ringspot virus</i> [strains not in New Zealand]	-
<i>Strawberry mild yellow edge-associated virus</i>	-
<i>Strawberry pallidosis associated virus</i>	-
<i>Strawberry pseudo mild yellow edge virus</i>	-
<i>Strawberry vein banding virus</i>	-
<i>Tobacco necrosis virus</i> [strains not in New Zealand]	-
<i>Tobacco streak virus</i> [strains not in New Zealand]	-
<i>Tomato bushy stunt virus</i>	-
<i>Tomato ringspot virus</i>	-

Phytoplasmas

-
-

Aster yellows phytoplasma	-
Clover phyllody phytoplasma	-
Clover proliferation phytoplasma	-
Clover yellow edge phytoplasma	-
Stolbur phytoplasma	-
STRAWB1 phytoplasma	-
STRAWB2 phytoplasma	-
Strawberry green petal phytoplasma	-
Strawberry leafy fruit phytoplasma	-
Strawberry multicipita phytoplasma	-
Strawberry multiplier phytoplasma	-
Strawberry phylloid fruit phytoplasma	-
Strawberry yellows phytoplasma	-

Diseases of unknown aetiology

-
-

Strawberry feather leaf disease	
Strawberry lethal decline disease	

* For organisms intercepted that are not listed within this pest list refer to the [Biosecurity Organisms Register for Imported Commodities](#) to determine regulatory status.

Inspection, Testing and Treatment Requirements for *Fragaria*

ORGANISM TYPES	MPI-ACCEPTABLE METHODS
Insects	Visual inspection AND approved insecticide treatments as described in the basic conditions of the Import Health Standard Nursery Stock from All countries [cuttings only]
Mites	Visual inspection AND approved miticide treatments as described in the basic conditions of the Import Health Standard Nursery Stock from All countries. [cuttings only] or binocular microscope inspection in PEQ [plants <i>in vitro</i> only]
Nematodes	Growing season inspection in PEQ for symptoms of foliar nematodes
Fungi	Growing season inspection in PEQ for symptom expression
Bacteria (and diseases caused by bacteria-like organisms)	
<i>Erwinia pyrifoliae</i>	Growing season inspection for symptom expression and PCR
<i>Ralstonia solanacearum</i> (Race 2)	Growing season inspection for symptom expression.
Strawberry marginal chlorosis (' <i>Candidatus phlomobacter fragariae</i> ')	Growing season inspection for symptom expression AND PCR
Strawberry rickettsia yellows	Growing season inspection for symptom expression
<i>Xanthomonas arboricola</i> pv. <i>fragariae</i>	Growing season inspection for symptom expression AND PCR
<i>Xanthomonas fragariae</i>	Growing season inspection for symptom expression AND PCR
<i>Xylella fastidiosa</i> (<i>Fragaria vesca</i> only)	Growing season inspection in PEQ for disease symptom expression AND PCR
Viruses	
<i>Fragaria chiloensis</i> latent virus [strains not in New Zealand]	Herbaceous indicators (<i>Chenopodium quinoa</i> and <i>Cucumis sativus</i>)
Raspberry ringspot virus	Herbaceous indicator (<i>Chenopodium quinoa</i>) AND ELISA or PCR
Strawberry chlorotic fleck virus	Graft inoculation (<i>Fragaria vesca</i> cl. EMB or EMK)
Strawberry latent C virus	Graft inoculation (<i>Fragaria vesca</i> cl. EMC or UC5)
Strawberry latent ringspot virus [strains not in New Zealand]	Herbaceous indicators (<i>Chenopodium quinoa</i> and <i>Cucumis sativus</i>) AND ELISA or PCR
Strawberry mild yellow edge-associated virus	Graft inoculation (2 indicators; <i>Fragaria vesca</i> cl. UC4 or UC5, or cv. Alpine)
Strawberry pallidosis associated virus	Graft inoculation (<i>Fragaria virginiana</i> cl. UC10 or UC11)
Strawberry pseudo mild yellow edge virus	Graft inoculation (<i>Fragaria vesca</i> cl. UC4 or cv. Alpine. or <i>Fragaria virginiana</i> cl. UC12)
Strawberry vein banding virus	Graft inoculation (<i>Fragaria vesca</i> cl. UC5 or UC6, or cv. Alpine. or <i>Fragaria virginiana</i> cl. UC12) AND PCR
Tobacco necrosis virus [strains not in New Zealand]	Herbaceous indicators (<i>Chenopodium quinoa</i> and <i>Cucumis sativus</i>) AND ELISA or PCR
Tobacco streak virus [strains not in New Zealand]	Herbaceous indicators (<i>Chenopodium quinoa</i> and <i>Cucumis sativus</i>)
Tomato bushy stunt virus	Herbaceous indicator (<i>Chenopodium quinoa</i>)
Tomato ringspot virus	Herbaceous indicators (<i>Chenopodium quinoa</i> and <i>Cucumis sativus</i>) AND ELISA or PCR
Phytoplasmas	Growing season inspection AND nested PCR or real time PCR
Diseases of unknown aetiology	
Strawberry feather leaf disease	Graft inoculation (<i>Fragaria vesca</i> cl. UC1 or UC4, or cv. Alpine)
Strawberry lethal decline disease	Graft inoculation (<i>Fragaria vesca</i> cv. Alpine)

Notes:

1. The unit for testing is defined in section 2.3.2.1.
2. Plants *in vitro*: all tissue culture plantlets must go through a period of dormancy before virus testing to increase the virus titre. Plantlets must also be potted up and grown in a

MPI approved greenhouse and only material from the greenhouse is to be selected for testing.

3. Virus testing is to be conducted on new spring growth.
4. Growing season is defined as an extended period of plant growth that includes environmental conditions equivalent to spring (longer wetter days and colder temperatures), summer (longer dryer days and warm temperatures), and autumn (shorter wetter days and warm but cooling temperatures).
5. Phytoplasma and bacteria testing is to be conducted at the end of the summer growth period. Plants must be sampled from at least two positions on the apical crown region.
6. Graft indexing hosts: Each *Fragaria* plant must be tested by leaf-grafting onto two replicate indicator cultivars. The indicator plants must be maintained in a vigorous state of growth before and after grafting. Grafted plants are to be inspected regularly for symptoms of disease for at least 3 months.
7. Herbaceous indicator hosts: *Chenopodium quinoa* and *Cucumis sativus*. Two plants of each herbaceous indicator species must be used in each test. Herbaceous indicator plants must be grown at 18-25°C before and after inoculation 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.
8. Enzyme linked immunosorbent assay (ELISA) tests. All ELISA tests must be validated using both positive and negative controls prior to use in quarantine testing. Positive, negative, and buffer controls must be used in all tests.
9. Polymerase chain reaction (PCR) tests. All PCR tests must be validated using positive controls prior to use in quarantine testing. Positive and no template controls must be used in all tests. Positive internal control primers and a negative plant control should also be used in PCR tests.
10. Inspection of the *Fragaria* plants by the operator of the PEQ facility for signs of pest and disease must be at least twice per week during periods of active growth.
11. Other internationally recognised testing methods may be accepted by MPI with prior notification.

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:

Approved 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 MPI-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 MPI-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:

Approved Countries: All

Quarantine Pests: *Aculops fuchsiae* (Fuchsia Gall Mite); *Phytophthora ramorum*; *Xylella fastidiosa*

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

A. For Whole Plants or Cuttings:

PEQ: Level 2

Minimum Period: 3 months

- a. Conditions for *Phytophthora ramorum* (section 2.2.1.11)
- b. Conditions for *Xylella fastidiosa* (section 2.2.1.12)
- c. **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.

Gaultheria

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 *Gaultheria*”, and are additional to those specified in sections 1, 2 and 3 of the import health standard.

GENERAL CONDITIONS:

Approved 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, *Phytophthora ramorum*.

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

A. For Whole Plants:

PEQ: Level 2

Minimum Period: 3 months

- a. **Additional Declarations:** "*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".

- b. "The plants have been dipped prior to export in propiconazole at the rate of 0.5g a.i. per litre of water."
- c. Conditions for *Phytophthora ramorum* (section 2.2.1.11)

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:

Approved 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:

Approved 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:

Approved 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 MPI-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 bulb certification scheme."

OR

2) For bulbs NOT produced under a MPI-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:

Approved 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:

Approved 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:

Approved 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 for Primary Industries (MPI) 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

- 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 and phytoplasmas."

(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* 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 for Primary Industries (MPI) have been undertaken.

The *Hippeastrum* dormant bulbs have been:

- produced in accordance with the requirements of the BKD Class 1 bulb certification scheme and inspected in accordance with appropriate official procedures and found to be free of any visually detectable regulated pest.

AND

- The bulbs are free from *Armillaria mellea* and *Pratylenchus scribneri*.

AND

- Sourced from a pest free production site for *Hippeastrum* free from regulated nematodes and fungi 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 have been produced in accordance with the requirements of the BKD Class 1 bulb certification scheme and inspected in accordance with appropriate official procedures and found to be free of any visually detectable regulated pest.

AND

- The bulbs are free from *Armillaria mellea* and *Pratylenchus scribneri*.

AND

- Sourced from a pest free production site for hippeastrum free from regulated nematodes and fungi and held in a manner to ensure that infestation/reinfestation does not occur following certification.”

(iv) Post-entry quarantine

Post-entry quarantine is not required provided that the above measures have been completed.

3.3 *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 for Primary Industries (MPI) 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.

(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

(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

Tarsonemidae

Steneotarsonemus laticeps

bulb scale mite

Nematode

Secernentea

Tylenchida

Pratylenchidae

Pratylenchus coffeae

coffee root lesion nematode

Pratylenchus scribneri

Scribner's root lesion nematode

Fungus

Basidiomycota: Basidiomycetes

Agaricales

Tricholomataceae

Armillaria mellea (anamorph *Rhizomorpha subcorticalis*)

armillaria root rot

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:

Approved 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:

Approved 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

PEQ: Level 2

Minimum Period: 3 months

1. Additional declaration: "The plants have been dipped prior to export in dicofol at the rate of 0.7g a.i. per litre of water".
2. Conditions for *Xylella fastidiosa* (section 2.2.1.12)

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:

Approved Countries: All

Quarantine pests: *Helicobasidium mompa*; *Streptomyces ipomoea*; virus diseases; *Xylella fastidiosa*.

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

A. For Whole Plants:

PEQ: Level 3

Minimum Period: 3 months

- a. Conditions for *Xylella fastidiosa* (section 2.2.1.12)

B. For 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 for Primary Industries (MPI) 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 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:

- 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 MPI Inspector.

3.2 *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 for Primary Industries (MPI) 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 for Primary Industries (MPI) 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 *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 *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

Popillia japonica Japanese beetle

Homoptera

Pseudococcidae

Aleyrodes spiraeoides [whole plants only] -

Pseudococcidae

Phenacoccus avenae -

Phenacoccus emansor -

Pseudococcus jackbeardsleyi [whole plants only] Jack Beardsley mealybug

Rhizoecus palestineae root mealybug

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

Dolichodoridae

Tylenchorhynchus gaudialis -

Hoplolaimidae

Rotylenchus goodeyi spiral nematode

Meloidogynidae

Meloidogyne arenaria peanut root knot nematode

Meloidogyne ichinohei -

Fungus

Ascomycota

Dothideales

Leptosphaeriaceae

Trematosphaeria heterospora --

Leotiales

Sclerotiniaceae

Botryotinia convoluta (anamorph *Botrytis convallariae*) stem rot

Botryotinia polyblastis (anamorph *Botrytis polyblastis*) fire disease

Sclerotinia bulborum black slime

Basidiomycota: Basidiomycetes

Agaricales

Tricholomataceae	
<i>Armillaria mellea</i> (anamorph <i>Rhizomorpha subcorticalis</i>)	armillaria root rot
Lachnocladales	
Lachnocladiaceae	
<i>Scytinostroma eurasiaticogalactinum</i>	white root rot
Phallales	
Hysterangiaceae	
<i>Hysterangium boudieri</i>	--
mitosporic fungi (Agonomycetes)	
Agonomycetales	
unknown Agonomycetales	
<i>Rhizoctonia tuliparum</i>	basal rot
<i>Sclerotium rolfsii</i> var. <i>delphinii</i>	sclerotium rot
Bacterium	
Pseudomonadaceae	
<i>Burkholderia gladioli</i> pv. <i>gladioli</i>	bacterial rot
Virus	
<i>Broad bean wilt virus</i>	-
<i>Iris fulva mosaic virus</i>	-
<i>Iris germanica leaf stripe virus</i>	-
<i>Japanese iris necrotic ring virus</i>	-
<i>Tobacco rattle virus</i> [strains not in New Zealand]	-

Juglans

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:

Approved 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: *Ceratocystis fimbriata*, *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:

A. For Whole Plants:

PEQ: Level 3
Minimum Period: 6 months

- a. Conditions for *Ceratocystis fimbriata* (section 2.2.1.8)
Note: Only applies to members of the *Juglans* genus
- b. Conditions for *Xylella fastidiosa* (section 2.2.1.12)

B. For Tissue Culture:

PEQ: Level 3
Minimum Period: 6 months

Juniperus

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:

Approved 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

Kalmia

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:

Approved 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 (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:

Approved 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.

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 for Primary Industries (MPI) 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 MPI 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 for Primary Industries (MPI) have been undertaken.

The *Lilium* 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

- 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 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 *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 for Primary Industries (MPI) 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

Paratrichodorus 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

Didymellina intermedia

black rot

Mycosphaerella martagonis

black blotch

Basidiomycota: Basidiomycetes

Agaricales

Tricholomataceae

Armillaria mellea (anamorph *Rhizomorpha subcorticalis*)

armillaria root rot

Auriculariales

Auriculariaceae

Helicobasidium mompa

violet root rot

Basidiomycota: Teliomycetes

Uredinales

Pucciniaceae

Puccinia sporoboli (anamorph *Aecidium lilii*)

Rust

Uromyces aecidiiformis

rust fungi

<i>Uromyces holwayi</i>	-
mitosporic fungi (Agonomycetes)	
Agonomycetales	
unknown Agonomycetales	
<i>Rhizoctonia tuliparum</i>	basal rot
<i>Sclerotium rolfsii</i> var. <i>delphinii</i>	sclerotium rot
<i>Sclerotium wakkeri</i>	Blackleg
mitosporic fungi (Coelomycetes)	
Sphaeropsidales	
Sphaerioidaceae	
<i>Macrophoma lili</i>	black root rot
<i>Phyllosticta liliicola</i>	black rot
unknown Coelomycetes	
unknown Coelomycetes	
<i>Colletotrichum lili</i>	-
mitosporic fungi (Hyphomycetes)	
Hyphomycetales	
Moniliaceae	
<i>Botrytis hyacinthi</i>	hyacinth blight
<i>Ramularia vallisumbrosae</i>	white mould
Tuberculariales	
Tuberculariaceae	
<i>Fusarium oxysporum</i> f. sp. <i>lili</i>	basal rot
unknown Hyphomycetes	
unknown Hyphomycetes	
<i>Aureobasidium microstictum</i>	-
Bacterium	
Enterobacteriaceae	
<i>Erwinia lili</i>	-
Virus	
<i>Apple stem grooving virus</i> [strains not in New Zealand]	-
<i>Lily rosette virus</i>	-
<i>Tobacco rattle virus</i> [strains not in New Zealand]	-
<i>Tomato ringspot virus</i>	-

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:

Approved 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, *Phytophthora ramorum*

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

- a. Additional declaration: "*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".
- b. Additional declaration: "The plants have been dipped in propiconazole at the rate of 0.5g a.i. per litre of water".
- c. Conditions for *Phytophthora ramorum* (section 2.2.1.11)

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 MPI-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:

Approved 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

Lophophora williamsii

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:

Approved 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 *Malus*”, and are additional to those specified in sections 1, 2 and 3 of the import health standard.

1. Type of *Malus* nursery stock approved for entry into New Zealand

Cuttings (dormant); plants in tissue culture

Malus can be imported into Level 2 post entry quarantine from MPI-accredited facilities, or into Level 3 post entry quarantine from non-accredited facilities.

2. Pests of *Malus*

Refer to the pest list.

3. Entry conditions for:

3.1 *Malus* cuttings and tissue culture from offshore MPI-accredited facilities in any country

An offshore accredited facility is a facility that has been accredited to the Standard PIT.OS.TRA.ACPQF to undertake phytosanitary activities. For *Malus*, the accredited facility operator must also have an agreement with MPI on the phytosanitary measures to be undertaken for *Malus*. Refer to the “Inspection, Testing and Treatment Requirements for *Malus*”.

(i) Documentation

Phytosanitary certificate: a completed phytosanitary certificate issued by the NPPO of the exporting country must accompany all *Malus* 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 MPI have been undertaken.

The *Malus* 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 MPI and the [name of the MPI-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 *Malus* 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 MPI and the [name of the MPI-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 *Malus* nursery stock must be imported under permit into post-entry quarantine in a level 2 quarantine facility accredited to the 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 in the post entry quarantine facility, all cuttings must be dipped in 1% sodium hypochlorite for 2 minutes. The nursery stock will be grown for a minimum period of 6 months (active continuous growth) in post-entry quarantine and will be inspected, treated and/or audit-tested for regulated pests, at the expense of the importer. For tissue cultures, the quarantine period begins when tissue cultures are deflasked into the PEQ greenhouse. 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 *Malus* 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 *Malus* 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 MPI have been undertaken.

The *Malus* 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 *Malus* nursery stock must be imported under permit into post-entry quarantine in a level 3 quarantine facility accredited to the 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 in the post entry quarantine facility, all cuttings must be dipped in 1% sodium hypochlorite for 2 minutes. The nursery stock will be grown for a minimum period of 36 months in post-entry quarantine. For tissue cultures, the quarantine period begins when tissue cultures are deflasked into the PEQ greenhouse. During this time, imported material will be inspected, treated and/or tested for regulated pests as specified in the “Inspection, Testing and Treatment Requirements for *Malus*”, 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 *Malus*

*For organisms intercepted that are not listed within this pest list refer to the [Biosecurity Organisms Register for Imported Commodities](#) to determine the regulatory status.

REGULATED PESTS (actionable)

Insect	
Insecta	
Coleoptera	
Attelabidae	
<i>Rhynchites caeruleus</i>	apple twig cutter
Bostrichidae	
<i>Amphicerus bicaudatus</i>	apple twig borer
<i>Apate monachus</i>	black borer
Buprestidae	
<i>Agrilus mali</i>	apple wood borer
<i>Agrilus</i> spp.	bark borers
<i>Chrysobothris femorata</i>	flatheaded apple tree borer
<i>Chrysobothris mali</i>	Pacific flatheaded borer
<i>Chrysobothris</i> spp.	flat-headed borers
<i>Sphenoptera lafertei</i>	flatheaded peach tree borer
Cerambycidae	
<i>Aeolesthes sarta</i>	Quetta borer
<i>Apriona germarii</i>	mulberry longicorn beetle
<i>Apriona japonica</i>	mulberry borer
<i>Bacchisa fortunei</i>	pear borer
<i>Batocera rufomaculata</i>	red-spotted longhorn beetle
<i>Phryneta spinator</i>	
Curculionidae	
<i>Anthonomus piri</i>	apple bud weevil
<i>Eremnus atratus</i>	black weevil
<i>Eremnus cerealis</i>	western province grain worm
<i>Eremnus setulosus</i>	grey weevil
Scolytidae	
<i>Hypothenemus obscurus</i>	apple twig borer
<i>Scolytus japonicus</i>	Japanese bark beetle
<i>Scolytus rugulosus</i>	fruit bark borer
Diptera	
Cecidomyiidae	
<i>Resseliella oculiperda</i>	red bud borer
<i>Thomasiniana oculiperda</i>	red bud borer
Hormptera	
Aphididae	
<i>Aphis spiraecola</i>	spiraea aphid
Diaspididae	
<i>Chrysomphalus aonidum</i>	Florida red scale
<i>Chrysomphalus dictyospermi</i>	Spanish red scale
<i>Diaspidiotus africanus</i>	grey scale
Lepidoptera	
Cossidae	
<i>Coryphodema tristis</i>	quince trunk borer
Gelechiidae	
<i>Recurvaria syriactis</i>	bud moth
Gracillariidae	
<i>Marmara elotella</i>	apple barkminer
<i>Marmara pomonella</i>	apple fruitminer
Oecophoridae	
<i>Cryptophasa melanostigma</i>	fruit tree borer
Pyralidae	

<i>Euzophera semifuneralis</i>	American plum borer
<i>Ostrinia nubilalis</i>	European corn borer
Sesiidae	
<i>Thamnosphacia pyri</i>	apple bark borer
<i>Synanthedon scitula</i>	pecan tree borer
Mite	
Arachnid	
a	
Acarina	
Eriophyidae	
<i>Aculops malus</i>	eriphyid mite
<i>Eriophyes mali</i>	Willamette spider mite
<i>Phyllocoptes mali</i>	eriphyid mite
<i>Cenopalpus chitraliensis</i>	bryobia mite
<i>Cenopalpus haqii</i>	banana mite
<i>Cenopalpus orakiensis</i>	Bailey's apple rust mite
<i>Cenopalpus pulcher</i>	flat scarlet mite
Tenuipalpidae	
<i>Brevipalpus lilium</i>	false spider mite
<i>Brevipalpus obovatus</i>	privet mite
<i>Tenuipalpus taonicus</i>	Pacific mite
<i>Rhinotergum schestovici</i>	mite
Tetranychidae	
<i>Eotetranychus carpini</i>	false spider mite
<i>Eotetranychus uncatus</i>	Lewis spider mite
<i>Eotetranychus willamettei</i>	hazel mite
<i>Oligonychus gossypii</i>	tetranychid mite
<i>Oligonychus newcomeri</i>	spider mite
<i>Oligonychus yothersi</i>	avocado red mite
<i>Tetranychus canadensis</i>	four spotted spider mite
<i>Tetranychus kanzawai</i>	Kanzawa spider mite
<i>Tetranychus mcdanieli</i>	McDaniel spider mite
<i>Tetranychus schoenei</i>	Schoenei spider mite
<i>Amphitetranychus viennensis</i>	hawthorn spider mite
Tydeidae	
<i>Tydeus</i> spp.	tydeid mites
Fungus	
Ascomycota: Ascomycetes	
Diaporthales	
Valsaceae	
<i>Diaporthe tanakae</i> (anamorph <i>Phomopsis tanakae</i>)	pear canker
<i>Leucostoma auerswaldii</i>	leucostoma canker
Diatrypales	
Diatrypaceae	
<i>Eutypella sorbi</i>	stem disease
Dothideales	
Mycosphaerellaceae	
<i>Mycosphaerella pyri</i> (anamorph <i>Septoria pyricola</i>)	leaf fleck of pear
<i>Mycosphaerella tulasnei</i>	rot
Schizothyriaceae	
<i>Schizothyrium perexiguum</i>	greasy blotch
Erysiphales	
Erysiphaceae	
<i>Pleochaeta mali</i>	powdery mildew
Heotiales	
Dermateaceae	
<i>Diplocarpon mali</i>	black spot
<i>Pezicula perennans</i>	perennial canker
Sclerotiniaceae	
<i>Grovesinia pyramidalis</i> (anamorph <i>Cristulariella moricola</i>)	target spot
<i>Monilinia laxa</i> f. sp. mali	brown rot
<i>Monilinia mali</i>	monilinia leaf blight

<i>Monilinia fructigena</i> (anamorph <i>Monilia fructigena</i>)	European brown rot
<i>Sclerotinia</i> spp.	neck rot
Rhytismatales	
Cryptomycetaceae	
<i>Potebniamyces pyri</i> (anamorph <i>Phacidiopycnis piri</i>)	Phacidiopycnis rot
Sordariales	
Chaetomiaceae	
<i>Chaetomium</i> spp.	fruit rot
Taphrinales	
Taphrinaceae	
<i>Taphrina bullata</i>	leaf blister
Xylariales	
Xylariaceae	
<i>Biscogniauxia marginata</i>	nailhead canker
<i>Daldinia vernicosa</i>	wood rot
<i>Xylaria mali</i>	black root rot
Ascomycota: Saccharomycetes	
Saccharomycetales	
Endomycetaceae	
<i>Endomycopsis mali</i>	rot
Basidiomycota: Basidiomycetes	
Agaricales	
Coprinaceae	
<i>Coprinus psychromorbidus</i>	coprinus rot
Tricholomataceae	
<i>Armillaria mellea</i>	armillaria root rot
<i>Armillaria ostoyae</i>	armillaria root rot
<i>Armillaria tabescens</i>	armillaria root rot
Ceratobasidiales	
Ceratobasidiaceae	
<i>Ceratobasidium stevensii</i>	thread blight
Ganodermatales	
Ganodermataceae	
<i>Ganoderma lucidum</i>	wood rot
Hymenochaetales	
Hymenochaetaceae	
<i>Phellinus pomaceus</i>	white heart rot
Lachnocladiiales	
Lachnocladiaceae	
<i>Scytinostroma galactinum</i>	white root rot
Polyporales	
Corticaceae	
<i>Corticium koleroga</i>	thread blight
Cyphellaceae	
<i>Maireina marginata</i>	wood decay
Meripilaceae	
<i>Phlebia radiata</i>	wood decay
<i>Trametes ochracea</i>	wood decay
Poriales	
Coriolaceae	
<i>Ceriporia spissa</i>	wood rot
<i>Coriopsis gallica</i>	white rot
<i>Fomes fomentarius</i>	wood decay
<i>Fomitopsis pinicola</i>	brown cubical rot
<i>Laeitiporus sulphureus</i> (anamorph <i>Sporotrichum versisporum</i>)	brown cubical rot
<i>Lenzites betulina</i>	wood decay
<i>Oxyporus latemarginatus</i>	wood decay
<i>Oxyporus similis</i>	wood decay
Stereales	
Atheliaceae	
<i>Butlerelfia eustacei</i>	storage rot

Sistotremataceae	
<i>Phymatotrichopsis omnivorum</i>	Texas root rot
Basidiomycota: Urediniomycetes	
Uredinales	
Pucciniaceae	
<i>Gymnosporangium clavipes</i>	quince rust
<i>Gymnosporangium cornutum</i>	rust
<i>Gymnosporangium fuscum</i>	European pear rust
<i>Gymnosporangium globosum</i>	American hawthorn rust
<i>Gymnosporangium hemisphaericum</i>	rust
<i>Gymnosporangium libocedri</i>	Pacific Coast pear rust
<i>Gymnosporangium nelsonii</i>	Rocky Mountain pear rust
<i>Gymnosporangium nidus-avis</i>	rust
<i>Gymnosporangium nootkatense</i>	yellow cypress rust
<i>Gymnosporangium shiraianum</i>	rust
<i>Gymnosporangium</i> spp.	cedar apple rust
<i>Gymnosporangium tremelloides</i>	common juniper gall rust
<i>Gymnosporangium yamadae</i>	Japanese apple rust
<i>Gymnosporangium juniperi-virginianae</i>	cedar apple rust
Unknown Uredinales	
<i>Roestelia fenzeliana</i>	rust
<i>Roestelia levis</i>	rust
Basidiomycota: Ustomycetes	
Platyglloeales	
Platyglloeaceae	
<i>Helicobasidium mompa</i>	violet root rot
Mitosporic Fungi (Coelomycetes)	
Sphaeropsidales	
Sphaerioidaceae	
<i>Cytospora schulzeri</i>	bark disease
<i>Dothiorella mali</i>	fruit rot
<i>Phomopsis truncicola</i>	blight
<i>Phyllosticta solitaria</i>	apple blotch
<i>Phyllosticta</i> spp.	leaf spot
<i>Pyrenochaeta mali</i>	fruit rot
<i>Sphaeropsis pyriputrescens</i>	Sphaeropsis rot
Mitosporic Fungi (Hyphomycetes)	
Hyphomycetales	
Dematiaceae	
<i>Alternaria mali</i>	alternaria blotch
<i>Alternaria</i> spp.	
<i>Helminthosporium papulosum</i>	black pox
<i>Cladosporium</i> spp.	mouldy core
<i>Epicoccum</i> spp.	mouldy core
<i>Stemphylium</i> spp.	
<i>Ulocladium</i> spp.	cladosporium rot
Moniliaceae	
<i>Aspergillus</i> spp.	coloured moulds
<i>Botrytis mali</i>	fruit rot
<i>Cephalosporium carpogenum</i>	fruit rot
<i>Cephalosporium</i> spp.	
<i>Penicillium</i> spp.	rot
<i>Ramularia macrospora</i>	bellflower leaf spot
<i>Verticillium</i> spp.	verticillium wilt
Tuberculariales	
Tuberculariaceae	
<i>Fusarium</i> spp.	
Unknown Hyphomycetes	
-	
<i>Oidium</i> spp.	powdery mildew
Bacterium	
Schizomycetes	

Pseudomonadales

Pseudomonadaceae

Pseudomonas syringae pv. *papulans*

blister spot

Virus

Cherry rasp leaf virus

Clover yellow mosaic virus

Tomato bushy stunt virus

Tomato ringspot virus

Viroi d

Apple dimple fruit viroid

Apple fruit crinkle viroid

Apple scar skin viroid

Phytoplasma

'*Candidatus* Phytoplasma asteris'

Apple sessile leaf phytoplasma

Apple proliferation

phytoplasma

'*Candidatus* Phytoplasma mali'

Disease of unknown etiology

Apple blister bark agent

Apple brown ringspot agent

Apple bumpy fruit agent

Apple bunchy top agent

Apple dead spur agent

Apple decline

Apple freckle scurf agent

Apple green dimple and ring blotch agent

Apple junction necrotic pitting agent

Apple McIntosh depression agent

Apple narrow leaf agent

Apple Newton wrinkle agent

Apple pustule canker agent

Apple red ring agent

Apple rosette agent

Apple rough skin agent

Apple russet wart agent

Apple star crack agent

Apple transmissible internal bark necrosis agent

Inspection, Testing and Treatment Requirements for *Malus*

ORGANISM TYPES	MPI-ACCEPTABLE METHODS
Insects	Visual inspection AND approved insecticide treatments as described in section 2.2.1.6 of the Basic conditions [cuttings only]
Mites	Visual inspection AND approved miticide treatments as described in the section 2.2.1.6 of the Basic conditions [cuttings only] or binocular microscope inspection in PEQ [plants in tissue culture only]
Fungi	Growing season inspection in PEQ for symptom expression
Bacteria	
<i>Pseudomonas syringae</i> pv. <i>papulans</i>	Growing season inspection for symptom expression AND PCR
Viruses	
<i>Cherry rasp leaf virus</i>	Woody indexing ('Golden delicious') or herbaceous indexing (<i>Chenopodium quinoa</i> and <i>Chenopodium amaranticolor</i>) AND PCR
<i>Clover yellow mosaic virus</i>	Growing season inspection
<i>Tomato bushy stunt virus</i>	Herbaceous indexing (<i>Chenopodium quinoa</i> and <i>Chenopodium amaranticolor</i>)
<i>Tomato ringspot virus</i>	Herbaceous indexing (<i>Chenopodium quinoa</i> and <i>Chenopodium amaranticolor</i>) AND ELISA or PCR
Viroids	
<i>Apple dimple fruit viroid</i>	Woody indexing ('Red delicious') AND PCR
<i>Apple fruit crinkle viroid</i>	Woody indexing ('Golden delicious') AND PCR
<i>Apple scar skin viroid</i>	Woody indexing ('Golden delicious' and 'Red delicious') AND PCR
Phytoplasmas	
' <i>Candidatus</i> Phytoplasma asteris' (Apple sessile leaf phytoplasma)	Nested PCR or real time PCR using universal phytoplasma primers
' <i>Candidatus</i> Phytoplasma mali' (Apple proliferation phytoplasma)	Woody indexing ('Golden delicious') AND nested PCR or real time PCR using universal phytoplasma primers
Diseases of unknown etiology	
Apple blister bark agent	Growing season inspection
Apple brown ringspot agent	Growing season inspection
Apple bumpy fruit agent	Growing season inspection
Apple bunchy top agent	Growing season inspection
Apple dead spur agent	Woody indexing ('Golden delicious' and 'Red delicious')
Apple decline	Growing season inspection
Apple freckle scurf agent	Growing season inspection
Apple green dimple and ring blotch agent	Growing season inspection
Apple junction necrotic pitting agent	Growing season inspection
Apple McIntosh depression agent	Growing season inspection
Apple narrow leaf agent	Growing season inspection
Apple Newton wrinkle agent	Growing season inspection
Apple pustule canker agent	Growing season inspection
Apple red ring agent	Growing season inspection
Apple rosette agent	Growing season inspection
Apple rough skin agent	Woody indexing ('Golden delicious')
Apple russet wart agent	Woody indexing ('Golden delicious')
Apple star crack agent	Woody indexing ('Golden delicious' and 'Red delicious')
Apple transmissible internal bark necrosis agent	Growing season inspection

Notes:

1. **Pest free area or Pest free place of production** endorsements for regulated viruses, viroids, phytoplasmas, and diseases of unknown etiology must be assessed by MPI prior to permit issue. The exporting NPPO must endorse additional declarations on the phytosanitary certificate, to be considered equivalent to testing in post entry quarantine.
2. The **unit for testing** is defined in section 2.3.2.1.
3. **Tissue culture plantlets** must be deflasked and grown in a post entry quarantine greenhouse, only material from the greenhouse is to be selected for testing.
4. **Growing season** is defined as an extended period of plant growth that includes environmental conditions equivalent to spring (longer wetter days and colder temperatures), summer (longer dryer days and warm temperatures), and autumn (shorter wetter days and warm but cooling temperatures).
5. **Virus testing** is to be conducted on new spring growth.
6. **Phytoplasma and bacteria testing** is to be conducted at the end of the summer growth period.
7. **Woody indexing** relies on the development of fruit and bark symptoms on susceptible *Malus* cultivars which would only be expressed under field conditions (ie. Level 1 post entry quarantine [PEQ]). Negative and positive control plants must be included; the positive control must develop the expected symptoms (eg. Apple green crinkle [non-regulated]). Indicator plants must be observed for at least two fruit crops whilst the plants are in Level 1 PEQ. All nursery stock plants must remain in Level 3 post entry quarantine for the completion of woody indicator testing.
Option 1: Woody indexing may be initiated in Level 1 PEQ after all the herbaceous indexing, molecular, and serological tests have been completed.
Option 2: Woody indexing may be initiated in Level 3 PEQ when the nursery stock arrives in New Zealand and transferred to Level 1 PEQ as soon as the herbaceous indexing, molecular, and serological tests have been completed. In this case, woody indicator plants must be held under appropriate environmental conditions (day time temperatures of 22-25 °C and night time temperatures of 12-18 °C) in a separate unit within the facility that does not contain any other plant material.
8. **Testing protocols** for tests completed in New Zealand are described in the Malus (Apple) Post-Entry Quarantine Testing Manual, which can be viewed on the website: <http://www.biosecurity.govt.nz/files/regs/imports/plants/high-value-crops/malus-testing-manual.pdf>
9. **Inspection** of the *Malus* plants by the operator of the PEQ facility for signs of pest and disease must be at least twice per week for the first three months of active growth, and during spring and autumn. All other times of active growth (summer), plants should be inspected once per week. A record of inspections carried out by the Operator is to be kept and made available to the MPI Inspector on request.
10. **Other internationally recognised testing methods** may be accepted by MPI with prior notification.

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.

GENERAL CONDITIONS:

Approved Countries: Australia, India, Pakistan, Mexico, Philippines

Quarantine Pests: *Ceratocystis fimbriata*, *Xanthomonas campestris* pv. *mangiferae-indicae*

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

For Whole Plants and Tissue Culture:

PEQ: Level 2
Minimum Period: 6 months

- a. Conditions for *Ceratocystis fimbriata* (section 2.2.1.8)
Note: Only applies to members of the *Mangifera* genus

- b. 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".

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 *Metrosideros*”, and are additional to those specified in sections 1, 2 and 3 of the import health standard.

GENERAL CONDITIONS:

Approved Countries: All

Quarantine Pests: *Ceratocystis fimbriata*, *Puccinia psidii* sensu lato (s.l.) complex (including *Uredo rangelii*)

Entry Conditions:

Basic; with variations and additional conditions as specified below:

A. For Whole Plants:

Option 1:

PEQ: Level 2
Minimum Period: 6 months

- c. Conditions for *Ceratocystis fimbriata* (section 2.2.1.8)
Note: Only applies to members of the *Metrosideros* and *Pimenta* genera

- d. Additional declaration:

" *Puccinia psidii* s.l. complex (including *Uredo rangelii*) is not known to occur in (the country of origin) ”.

Option 2:

PEQ: Level 3
Minimum Period: 6 months

- a. Conditions for *Ceratocystis fimbriata* (section 2.2.1.8)
Note: Only applies to members of the *Metrosideros* and *Pimenta* genera

B. For Tissue Cultures:

Option 1:

- a. Additional declaration:
 - “*Puccinia psidii* s.l. complex (including *Uredo rangelii*) is not known to occur in (the country of origin) ”.
- OR
- “The tissue cultures in this consignment have been actively growing in the culture container for at least four weeks at temperatures between 15 – 23°C (59 – 73.4°F)”.

Option 2:

PEQ: Level 2 Tissue culture laboratory
Minimum Period: 4 weeks

- a. The cultures containers are not to be opened during the quarantine period.

Miscanthus x giganteus

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 *Miscanthus x giganteus*”, and are additional to those specified in sections 1, 2 and 3 of the import health standard.

1. **Approved Countries:** United Kingdom and United States of America

2. **Type of material permitted entry:** Plants *in-vitro*

3. **Pests of *Miscanthus x giganteus***

Refer to the enclosed pest list.

4. **Entry conditions:**

(i) Documentation

Phytosanitary certificate: a completed phytosanitary certificate issued by the NPPO of the exporting country must accompany all *Miscanthus x giganteus* nursery stock exported to New Zealand.

Import permit: an import permit is required.

(ii) Phytosanitary requirements

The full botanical name of *Miscanthus x giganteus* must be identified upon the phytosanitary certificate.

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

The *Miscanthus x giganteus* plants in tissue culture have been:

- derived from mother plants which were not expressing symptoms of infection by regulated pests prior to the excision of the in-vitro plantlets.

AND

- derived from explant material which has been surfaced sterilised in a solution of 0.5% sodium hypochlorite and sterile water, or MPI approved alternative treatment.

AND

- propagated in culture media which is clear.

AND

- prepared by asexual reproduction (clonal techniques) under sterile conditions.

AND

- 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

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. The following additional declarations must be identified on the phytosanitary certificate.

The *Miscanthus x giganteus* plants in-vitro in this consignment have been:

- derived from mother plants sourced from a “Pest free area”, “Pest free place of production” or “Pest free production site”, free from *Leifsonia xyli* subsp. *xyli*, Miscanthus streak virus, and Sugarcane mosaic virus

AND

- derived from mother plants sourced from a “Pest free area”, “Pest free place of production” or “Pest free production site”, free from *Ustilago scitaminea* **OR** derived from explants that have been subjected to two consecutive hot water treatments at a minimum temperature of 50°C for 3 hours per treatment **OR** two consecutive hot water treatments at a minimum temperature of 52°C for 1 hour per treatment

(iv) Inspection, Testing and Treatment of the consignment

Where an additional declaration cannot be attested to on the phytosanitary certificate by the NPPO, testing of material shall be completed in post-entry quarantine upon arrival in New Zealand as specified within the testing and treatment requirements in this schedule.

If an organism is detected which is not identified with the enclosed Pest List, refer to <http://www.maf.govt.nz/biosecurity/pests-diseases/registers-lists/boric/> to ascertain regulated status. If the organism is not identified or categorised within the register, please contact plantimports@mpi.govt.nz.

(v) Post-entry quarantine

PEQ: Level 2

Quarantine Period: A minimum post entry quarantine period of 60 days of active continuous growth, within environmental conditions comprising a minimum average daily temperature of 20°C, and 8 hour light period shall be required to complete inspections and/or testing for pests as specified within the enclosed Regulated Pest List.

The quarantine period may be extended if material is slow growing, environmental requirements are not met, pests are detected, or additional treatments/tests are required. Sub-culturing is not to be undertaken during the PEQ period without prior approval from MPI. The costs of all inspections, tests and treatments while the *Miscanthus x giganteus* plant material is in PEQ shall be borne by the importer.

Regulated Pest List for Miscanthus:

Bacteria

<i>Acidovorax avenae</i> ssp. <i>avenae</i>	Bacterial leaf blight
<i>Leifsonia xyli</i> subsp. <i>Xyli</i>	Sugarcane ratoon stunting disease

Fungi

<i>Acremonium</i> sp.	Black bundle disease
<i>Colletotrichum</i> sp.	Leaf spot
<i>Diaporthe</i> sp.	Canker
<i>Diplodia</i> sp.	Blight
<i>Drechslera gigantean</i>	Eyespot
<i>Fusarium miscanthi</i>	Rot
<i>Fusarium pallidoroseum</i>	Rot
<i>Glomerella</i> sp.	Leaf spot
<i>Glomerella tucumanensis</i>	Leaf spot
<i>Helminthosporium</i> sp.	Eyespot
<i>Leptosphaeria</i> sp.	Canker
<i>Magnaporthe salvinii</i>	Stem rot
<i>Mycosphaerella recutita</i>	Leaf blight
<i>Mycosphaerella striatiformans</i>	Leaf spot
<i>Nigrospora</i> sp.	Stalk rot
<i>Passalora koepkei</i>	Yellow spot
<i>Peronosclerospora</i> sp.	Downy mildew
<i>Phlyctema</i> sp.	Canker
<i>Phoma</i> sp.	Blight
<i>Phomopsis</i> sp.	Blight
<i>Phyllachora</i> sp.	Leaf spot
<i>Puccinia melanocephala</i>	Sugarcane rust
<i>Ramularia</i> sp.	Anthraxnose
<i>Rhizoctonia</i> sp.	Root rot
<i>Stagonospora</i> sp.	Scorch
<i>Thanatephorus cucumeris</i>	Blight
<i>Ustilago scitaminea</i>	Sugarcane smut
<i>Verticillium</i> sp.	Verticillium wilt

Mites

<i>Schizotetranychus celarius</i>	Bamboo mite
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Viruses

<i>Miscanthus streak virus</i>
<i>Sugarcane mosaic virus</i>

Treatment and Testing Requirements during post entry quarantine:

Note: Treatment and testing requirements identified within this table are required to be undertaken when official assurances specified in this schedule cannot be provided by the exporting country's NPPO.

ORGANISM TYPE	MPI ACCEPTABLE MEASURES
Fungi	
<i>Ustilago scitaminea</i>	PCR/BIO-PCR, OR two consecutive hot water treatments at a minimum temperature of 50°C for 3 hours per treatment OR two consecutive hot water treatments at a minimum temperature of 52°C for 1 hour per treatment.
Bacteria	
<i>Leifsonia xyli</i> subsp. <i>xyli</i>	PCR/BIO-PCR, OR fluorescent-antibody staining of sap extracts, concentrated on membrane filters by filtration with observation by epifluorescence microscopy.
Viruses	
<i>Miscanthus streak virus</i>	PCR
<i>Sugarcane mosaic virus</i>	PCR or ELISA

Notes:

- 1. Unit for testing:** The unit for testing is defined in section 2.3.2.1.
- 2. Sample size for testing:** Sample size required for testing will be determined by MPI based on the specific test to be undertaken.
- 3. Enzyme linked immunosorbent assay (ELISA) tests:** All ELISA tests must be validated using positive controls prior to use in quarantine testing. Positive, negative, and buffer controls must be used in all tests unless indicated otherwise by MPI.
- 4. Polymerase chain reaction (PCR) tests:** All PCR tests must be validated using positive controls prior to use in quarantine testing. Positive and no template controls must be used in all tests. Internal control primers and a negative plant control shall be used in PCR tests unless indicated otherwise by MPI.
- 5. Inspection:** The operator of the PEQ facility must inspect the plants for signs of pest and disease at least twice per week during periods of active growth.
- 6. Other internationally recognised testing methods:** May be accepted by MPI Biosecurity New Zealand with prior notification.

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:

Approved 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 MPI-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:

Approved Countries: All

Quarantine Pests: *Alternanthera mosaic virus*, *Plantago asiatica mosaic virus* (synonym *Nandina mosaic virus*), *Xylella fastidiosa*

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

A. For Whole Plants:

PEQ: Level 2

Minimum Period: 3 months

- a. Conditions for *Xylella fastidiosa* (section 2.2.1.12)
- b. The following additional declaration shall be endorsed on the phytosanitary certificate:

"*Alternanthera mosaic virus* and *Plantago asiatica mosaic virus* are not known to occur in _____ (the country or state where the plants were grown) _____".

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 *Alternanthera mosaic virus* and *Plantago asiatica 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 *Nacissus*”, and are additional to those specified in sections 1, 2 and 3 of the import health standard.

GENERAL CONDITIONS:

Approved Countries: All

Quarantine Pests: *Frankliniella occidentalis*; *Hepialus lupulinus*; *Lilioceris lili*; *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 MPI-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 bulb certification scheme."

OR

2) For bulbs NOT produced under a MPI-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.

b. Type of *Olea* nursery stock approved for entry into New Zealand

Cuttings (dormant); Plants in tissue culture

c. Pests of *Olea*

Refer to the pest list.

d. 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 MPI 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 the 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

Insecta

Coccidae

Saissetia privigna black scale

Coleoptera

Attelabidae

Rhynchites cribripennis twig cutter

Buprestidae

Anthaxia ariadna wood-boring beetle

Scolytidae

Hylesinus fraxini bark beetle

Hylesinus oleiperda bark beetle

Hylesinus toranio bark beetle

Phloeotribus oleae bark beetle

Phloeotribus scarabaeiodes bark beetle

Xylosandrus compactus black twig borer

Diptera

Cecidomyiidae

Thomasiniana sp. olive bark midge

Asterolecaniidae

Pollinia pollini globe shaped olive scale

Coccidae

Ceroplastes rusci fig wax scale

Lichtensia viburni scale

Metacaronema japonica scale insect

Diaspididae

Aonidomytilus espinosai scale

Hemiberlesia palmae palm scale

Leucaspis riccae scale

Lindingaspis ferrisi scale

Parlatoria oleae olive scale

Pseudaulacaspis pentagona white peach scale

Selenaspis articulatus West Indian red scale

Lepidoptera

Pyralidae

Euzophera pinguis bark borer

Mite

Arachnida

Acarina

Eriophyidae

Aceria cretica mite

Aceria oleae olive mite

Aculops 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

<i>Brevipalpus olearius</i>	false spider mite
<i>Brevipalpus olivicola</i>	false spider mite
<i>Raoiella macfarlanei</i>	false spider mite
<i>Tenuipalpus caudatus</i>	false spider mite
Tetranychidae	
<i>Eotetranychus lewisi</i>	big beaked plum mite
Fungus	
Ascomycota	
Dothideales	
Capnodiaceae	
<i>Capnodium elaeophilum</i>	sooty mould
Elsinoaceae	
<i>Elsinoe oleae</i>	olive scab
Unknown Dothideales	
<i>Massariella oleae</i>	bark canker
<i>Massariella zambettakiana</i>	canker
<i>Zukalia purpurea</i>	black mildew
Xylariales	
Xylariaceae	
<i>Xylaria sicula</i>	root rot
Basidiomycota	
Agaricales	
Agaricaceae	
<i>Armillaria mellea</i> (anamorph <i>Rhizomorpha subcorticalis</i>)	armillaria root rot
Boletales	
Paxillaceae	
<i>Omphalotus olearius</i>	wood rot
Ganodermatales	
Ganodermataceae	
<i>Ganoderma lucidum</i> (anamorph <i>Polyporus lucidus</i>)	wood rot
Hymenochaetales	
Hymenochaetaceae	
<i>Phellinus igniarius</i>	wood rot
Oomycota	
Pythiaceae	
Pythaceae	
<i>Phytophthora ramorum</i>	Sudden oak death disease
Poriales	
Coriolaceae	
<i>Fomes fomentarius</i>	
<i>Fomes fulvus</i>	
<i>Fomes salicinus</i>	
<i>Fomes torulosus</i>	wood rot
<i>Fomes yucatonensis</i>	wood rot
Polyporaceae	
<i>Polyporus biennis</i>	wood rot
<i>Polyporus oleae</i>	wood rot
Stereales	
Sistotremataceae	
<i>Trechispora brinkmanii</i> (anamorph <i>Phymatotrichopsis omnivorum</i>)	Texas root rot
Mitosporic Fungi (Coelomycetes)	
Sphaeropsidales	
Sphaerioidaceae	
<i>Camarosporium dalmatica</i>	brown spot
<i>Cytospora oleina</i>	canker
<i>Macrophoma dalmatica</i>	fruit rot
<i>Phoma incompta</i>	stem blight
<i>Phyllosticta oleae</i>	phyllosticta leaf spot
<i>Septoria obesa</i>	leaf spot
<i>Septoria oleae</i>	leaf spot

<i>Septoria oleagina</i>	leaf spot
<i>Septoria serpentaria</i>	leaf spot
<i>Sphaeropsis dalmatica</i>	stem gall
<i>Sphaeropsis oleae</i>	stem gall
Unknown Coelomycetes	
Unknown Coelomycetes	
<i>Cylindrosporium olivae</i>	leaf spot
Bacterium	
Pseudomonadaceae	
<i>Pseudomonas syringae</i> pv. <i>garcae</i>	twig blight
<i>Xylella fastidiosa</i>	
Virus	
<i>Cherry leaf roll virus</i> [strains not in New Zealand]	-
<i>Olive latent 1 virus</i>	-
<i>Olive latent 2 virus</i>	-
<i>Olive latent ringspot virus</i>	-
<i>Olive leaf yellowing-associated virus</i>	-
<i>Olive vein yellow virus</i>	-
<i>Strawberry latent ringspot virus</i> [strains not in New Zealand]	-
Phytoplasma	
Olive witches' broom phytoplasma	-
Disease of unknown aetiology	
Infectious yellows	-
Leaf malformation	-
Olive sickle leaf disease	-
Olive yellow mosaic disease	-
Olive yellow mottling and decline	-
Partial paralysis	-

Inspection, Testing and Treatment Requirements for *Olea*

ORGANISM TYPES	MPI-ACCEPTED METHODS (See notes below)
Insects	Visual inspection AND approved insecticide treatments (Refer to section 2.2.1.6 of the basic conditions) [cuttings only].
Mites	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].
Fungi	Growing season inspection in PEQ for disease symptom expression.
Bacterium	
<i>Pseudomonas syringae</i> pv. <i>garcae</i>	Growing season inspection in PEQ for disease symptom expression.
<i>Xylella fastidiosa</i>	Growing season inspection in PEQ for disease symptom expression AND PCR
Virus	
<i>Cherry leaf roll virus</i> [strains not in New Zealand]	ELISA or PCR AND herbaceous indicators Ca, Cq and Nb AND TEM.
<i>Olive latent 1 virus</i>	Herbaceous indicators Ca, Cq and Nb AND TEM.
<i>Olive latent 2 virus</i>	Herbaceous indicators Ca, Cq and Nb AND TEM.
<i>Olive latent ringspot virus</i>	Herbaceous indicators Ca and Cq AND TEM.
<i>Olive leaf yellowing-associated virus</i>	TEM.
<i>Olive vein yellow virus</i>	TEM.
<i>Strawberry latent ringspot virus</i> [strains not in New Zealand]	ELISA or PCR AND herbaceous indicators Ca and Cq AND TEM.
Phytoplasmas	Woody indicators AND nested PCR or real time PCR using universal phytoplasma primers.
Diseases of unknown aetiology	Growing season inspection in PEQ for disease symptom expression.

Notes:

1. The unit for testing is defined in section 2.3.2.1.
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, MPI will accept other internationally recognised testing methods.

***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:

Approved 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*; *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 flaccidum*".

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.

***Paeonia* (tree species)**

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:

Approved 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:

Approved 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:

Approved 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".

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 MPI 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 the 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

Chrysomelidae

<i>Monolepta apicalis</i>	monolepta beetle
<i>Monolepta australis</i>	red-shouldered leaf beetle

Curculionidae

<i>Copturus aguacatae</i>	branch boring weevil
<i>Diaprepes abbreviatus</i>	citrus weevil
<i>Heilipus squamosus</i>	-
<i>Naupactus xanthographus</i>	fruit tree weevil

Hemiptera

Coreidae

<i>Amblypelta lutescens</i>	banana spotting bug
<i>Amblypelta nitida</i>	fruit-spotting bug
<i>Pseudotheraptus wayi</i>	coreid bug

Lygaeidae

<i>Nysius ericae</i>	false chinch bug
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Tingidae

<i>Pseudacysta perseae</i>	avocado lace bug
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Homoptera

Aleyrodidae

<i>Aleurocanthus woglumi</i>	citrus blackfly
<i>Parabemisia myricae</i>	Japanese bayberry whitefly
<i>Paraleyrodes minei</i>	whitefly
<i>Paraleyrodes perseae</i>	plumeria whitefly
<i>Tetraleyrodes perseae</i>	whitefly
<i>Trialeyrodes floridensis</i>	avocado whitefly

Coccidae

<i>Ceroplastes floridensis</i>	Florida wax scale
<i>Ceroplastes rubens</i>	red wax scale
<i>Ceroplastes rusci</i>	fig wax scale
<i>Chloropulvinaria psidii</i>	guava scale
<i>Protopulvinaria pyriformis</i>	pyriform scale
<i>Pulvinaria mammeae</i>	-

Diaspididae

<i>Aonidiella orientalis</i>	oriental yellow scale
<i>Aspidiotus destructor</i>	coconut scale
<i>Chrysomphalus aonidium</i>	Florida red scale
<i>Chrysomphalus dictyospermi</i>	dictyospermum scale
<i>Fiorinia fioriniae</i>	fiorinia scale
<i>Pinnaaspis strachani</i>	hibiscus snow scale
<i>Selenaspis articulatus</i>	West Indian red scale

Margarodidae

<i>Icerya seychellarum</i>	Seychelles scale
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Pseudococcidae

<i>Dysmicoccus brevipes</i>	pineapple mealybug
<i>Ferrisia virgata</i>	striped mealybug
<i>Nipaecoccus nipae</i>	coconut mealybug
<i>Planococcus citri</i>	citrus mealybug

Psyllidae

<i>Trioza aguacate</i>	psyllid
<i>Trioza anceps</i>	psyllid
<i>Trioza godoyae</i>	psyllid
<i>Trioza perseae</i>	psyllid

Hymenoptera

Formicidae

<i>Atta cephalotes</i>	leaf-cutting ant
Lepidoptera	
Geometridae	
<i>Ascotis selenaria</i>	mugwort looper
<i>Sabulodes aegrotata</i>	omnivorous looper
Hesperiidae	
<i>Pyrrhopyge chalybea</i>	swift moth
Noctuidae	
<i>Peridroma margaritosa</i>	-
<i>Prodenia eridania</i>	-
<i>Pseudoplusia includens</i>	soybean looper
Oecophoridae	
<i>Stenoma catenifer</i>	stenomid moth
Pyralidae	
<i>Cryptoblabes gnidiella</i>	Christmas berry webworm
<i>Stericta albifasciata</i>	-
Tortricidae	
<i>Amorbia cuneana</i>	leafroller
<i>Amorbia emigratella</i>	Mexican leafroller
<i>Amorbia essigana</i>	leafroller
<i>Argyrotaenia citrana</i>	orange tortrix
<i>Cacoecimorpha pronubana</i>	carnation leafroller
<i>Cryptophlebia leucotreta</i>	false codling moth
<i>Homona spargotis</i>	avocado leafroller
<i>Isotenes miserana</i>	orange fruitborer
<i>Platynota stultana</i>	omnivorous leafroller
Thysanoptera	
Thripidae	
<i>Retithrips syriacus</i>	black vine thrips
<i>Selenothrips rubrocinctus</i>	red-banded thrips
Mite	
Arachnida	
Acarina	
Tetranychidae	
<i>Oligonychus coffeae</i>	tea red spider mite
<i>Oligonychus perseae</i>	spider mite
<i>Oligonychus punicae</i>	avocado brown mite
<i>Oligonychus yothersi</i>	avocado red mite
Fungus	
Ascomycota	
Phyllachorales	
Phyllachoraceae	
<i>Glomerella cingulata</i> var. <i>minor</i> (anamorph)	anthracnose
<i>Colletotrichum gloeosporioides</i> var. <i>minus</i>)	
Xylariales	
Xylariaceae	
<i>Rosellinia bunodes</i>	-
<i>Rosellinia pepo</i>	-
Oomycota	
Pythiales	
Pythiaceae	
<i>Phytophthora palmivora</i>	black rot
Dothideomycetes	
Myriangiales	
Elsinoeaceae	
<i>Sphaceloma perseae</i>	Avocado scab
mitosporic fungi (Coelomycetes)	
Sphaeropsidales	
Sphaerioidaceae	
<i>Phomopsis perseae</i>	fruit rot

mitosporic fungi (Hyphomycetes)

Hyphomycetales

Dematiaceae

Pseudocercospora purpurea

cercospora spot blotch

unknown Hyphomycetes

unknown Hyphomycetes

Stilbella cinnabarina

-

Bacteria

Pseudomonadaceae

Xylella fastidiosa

Pierce's disease

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

-

Inspection, Testing and Treatment Requirements for *Persea*

ORGANISM TYPES	MPI-ACCEPTED METHODS (See notes below)
Insects	Visual inspection AND approved insecticide treatments (Refer to section 2.2.1.6 of the basic conditions) [cuttings only].
Mites	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].
Fungi	Growing season inspection in PEQ for disease symptom expression.
Bacteria	
<i>Xylella fastidiosa</i>	Growing season inspection in PEQ for disease symptom expression AND PCR
Virus	
<i>Avocado cryptic virus 3</i>	Pest free area or Pest free place of production AND Growing season inspection in PEQ for disease symptom expression.
Viroid	
<i>Avocado sunblotch viroid</i> [strains not in New Zealand]	Hybridisation or PAGE or PCR (two sets).
<i>Potato spindle tuber viroid</i>	Pest free area or Pest free place of production AND Growing season inspection in PEQ for disease symptom expression.
Disease of unknown aetiology	
Avocado black streak	Pest free area or Pest free place of production AND Growing season inspection in PEQ for disease symptom expression.

Notes:

1. The unit for testing is defined in section 2.3.2.1.
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, MPI 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 *Phalaenopsis*”, and are additional to those specified in sections 1, 2 and 3 of the import health standard.

GENERAL CONDITIONS:

Approved Countries: All

Quarantine Pests: *Capsicum chlorosis virus*, *Basella rugose mosaic virus*

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

A. For Whole Plants

PEQ: Level 2

Minimum Period: 3 months

B. For Whole Plants in growing media from Taiwan

No import permit is required.

PEQ: None

Specific Requirements: Sections 2.2.1.6 and 2.2.1.9 of the Basic Conditions are not required.

Additional Declarations:

“The *Phalaenopsis* spp. whole plants in MPI-approved growing media in this consignment:

1. have been sourced from mother stock that has been tested for, and found free from *Capsicum chlorosis virus* and *Basella rugose mosaic virus*,
AND
2. comply with the requirements of the Offshore Assurance Programme (OAP) implemented by New Zealand MPI and Taiwan BAPHIQ,
AND
3. have been inspected and found free from regulated viruses, insects, mites, fungi and bacteria,
AND
4. have been treated with appropriate broad-spectrum insecticide and miticide drench no more than 14 days prior to export to New Zealand.”

C. For Tissue Culture

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

Philodendron

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:

Approved 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:

Approved 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:

Approved Countries: All

Quarantine Pests: *Gymnosporangium* spp., *Phytophthora ramorum*

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".

3. Conditions for *Phytophthora ramorum* (section 2.2.1.11)

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 *Planera*”, and are additional to those specified in sections 1, 2 and 3 of the import health standard.

GENERAL CONDITIONS:

Approved 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 *Platanus*”, and are additional to those specified in sections 1, 2 and 3 of the import health standard.

GENERAL CONDITIONS:

Approved Countries: All

Quarantine Pests: *Ceratocystis platani*, *Xylella fastidiosa*

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

B. For Cuttings and Whole Plants

PEQ: Level 2

Minimum Period: 3 months

- a. Conditions for *Xylella fastidiosa* (section 2.2.1.12)
- b. Conditions for *Ceratocystis platani*:
Additional declaration: “The plants have been sourced from a country free from *Ceratocystis platani*”
OR
“The plants have been sourced from a state/province free from *Ceratocystis platani* or from a Pest Free Place of Production free from *Ceratocystis platani*”
AND
The plants must be tested for *Ceratocystis platani* during the post entry quarantine period, at an MPI approved diagnostic facility.

Note: Countries where *Ceratocystis platani* is known to be present:
Armenia, France, Greece, Italy, Switzerland, United States.

B. For Plants in Tissue Culture:

- a. 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 *Polyscias*”, and are additional to those specified in sections 1, 2 and 3 of the import health standard.

GENERAL CONDITIONS:

Approved 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 *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 MPI-accredited facilities (quarantine stations)

An offshore accredited facility is a facility that has been accredited to the Standard PIT.OS.TRA.ACPQF to undertake phytosanitary activities. For *Poncirus*, the accredited facility operator must also have an agreement with MPI 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 MPI 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 MPI 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 MPI (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 MPI-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 *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 MPI, 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 MPI 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. Plants must be held at 18-25°C throughout the quarantine period.

Quarantine Period:

This is the time required to complete inspections and/or indexing to detect regulated pathogens. The quarantine period may be extended if material is slow growing, pests are detected, or treatments/testing are required.

Indicative minimum quarantine periods are:

- 6 months for *Poncirus* cuttings sourced from mother plants that have been kept in insect proof plant houses, which may be extended to 12 months to allow for testing to be completed; or
- 16 months for *Poncirus* cuttings sourced directly from open ground mother plants.

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 MPI 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 MPI (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 MPI, and to conform with

the current phytosanitary requirements of MPI."

(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 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 MPI-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 MPI-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 MPI-accredited facilities

An offshore accredited facility is a facility that has been accredited to the Standard PIT.OS.TRA.ACPQF to undertake phytosanitary activities. For *Poncirus*, the accredited facility operator must also have an agreement with MPI 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 MPI 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 MPI 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 MPI (refer to the pest list).

AND

- held and tested for/classified free from specified regulated pests at a MPI-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 MPI, 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 MPI 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 MPI 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 MPI (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 MPI, and to conform with the current phytosanitary requirements of MPI."

(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 MPI-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)

Insect

Insecta

Coleoptera

Bostrichidae

<i>Apate indistincta</i>	shot-hole borer
<i>Apate terebrans</i>	shot-hole borer

Buprestidae

<i>Agrilus alesii</i>	flatheaded citrus borer
<i>Agrilus auriventris</i>	citrus flatheaded borer

Cerambycidae

<i>Anoplophora malasiaca</i>	white-spotted longicorn beetle
<i>Chelidonium gibbicolle</i>	-
<i>Dihammus vastator</i>	fig longhorn
<i>Melanauster chinensis</i>	-
<i>Paradisterna plumifera</i>	speckled longicorn
<i>Promeces linearis</i>	-
<i>Skeletodes tetrops</i>	longhorn beetle
<i>Strongylurus thoracicus</i>	pittosporum longicorn
<i>Uracanthus cryptophagus</i>	citrus branch borer

Chrysomelidae

<i>Colasposoma fulgidum</i>	bluegreen citrus nibbler
<i>Colasposoma scutellare</i>	-
<i>Geloptera porosa</i>	pitted apple beetle
<i>Luperomorpha funesta</i>	mulberry flea beetle
<i>Monolepta australis</i>	red-shouldered leaf beetle
<i>Sebaethe fulvipennis</i>	flea beetle

Coccinellidae

<i>Cheilomenes lunata</i> [Animals Biosecurity]	-
<i>Chilocorus cacti</i> [Animals Biosecurity]	-
<i>Chilocorus distigma</i> [Animals Biosecurity]	-
<i>Chilocorus nigrita</i> [Animals Biosecurity]	-
<i>Exochomus flavipes</i> [Animals Biosecurity]	-
<i>Pentilia castanea</i> [Animals Biosecurity]	-
<i>Rhyzobius lophanthae</i> [Animals Biosecurity]	-
<i>Scymnus nanus</i> [Animals Biosecurity]	-
<i>Serangium parcesetosum</i> [Animals Biosecurity]	-
<i>Stethorus aethiops</i> [Animals Biosecurity]	-
<i>Stethorus histrio</i> [Animals Biosecurity]	-
<i>Stethorus punctata picipes</i> [Animals Biosecurity]	-

Curculionidae

<i>Amystax fasciatus</i> [Animals Biosecurity]	-
<i>Artipus</i> sp.	-
<i>Brachycerus citriperda</i>	-
<i>Callirhopalus bifasciatus</i>	two-banded Japanese weevil
<i>Dereodus recticollis</i>	-
<i>Diaprepes abbreviatus</i>	citrus weevil
<i>Diaprepes</i> spp.	-
<i>Eutinophaea bicristata</i>	citrus leaf-eating weevil
<i>Leptopius squalidus</i>	fruit tree root weevil
<i>Naupactus xanthographus</i>	fruit tree weevil
<i>Otiorhynchus cribricollis</i>	cribrate weevil
<i>Pachnaeus citri</i>	-
<i>Pachnaeus litus</i>	citrus root weevil
<i>Perperus lateralis</i>	white-striped weevil
<i>Prepodes</i> spp.	-
<i>Protostrophus avidus</i>	weevil
<i>Sciobius marshalli</i>	citrus snout beetle

<i>Sympiezomias lewisi</i>	-
Lucanidae	
<i>Prosopocoilus spencei</i>	-
Scarabaeidae	
<i>Hypopholis indistincta</i>	scarab beetle
<i>Maladera matrıda</i>	scarab beetle
Scolytidae	
<i>Salagena</i> sp.	-
<i>Xylosandrus germanus</i>	alnus ambrosia beetle
Diptera	
Cecidomyiidae	
<i>Contarinia citri</i>	leafcurling midge
<i>Contarinia okadai</i>	citrus flower gall midge
<i>Trisopsis</i> sp.	-
Chamaemyiidae	
<i>Leucopis alticeps</i> [Animals Biosecurity]	-
Drosophilidae	
<i>Drosophila paulistorum</i>	-
<i>Drosophila pseudoobscura</i>	-
<i>Drosophila simulans</i>	-
<i>Drosophila willistoni</i>	-
Tephritidae	
<i>Dirioxa pornia</i>	island fruit fly
Hemiptera	
Anthocoridae	
<i>Orius thripoborus</i> [Animals Biosecurity]	-
<i>Triphleps thripoborus</i> [Animals Biosecurity]	-
Coreidae	
<i>Acanthocoris striicornis</i>	larger squash bug
<i>Anoplocnemis curvipes</i>	coreid bug
<i>Leptoglossus membranaceus</i>	coreid bug
<i>Mictis profana</i>	crusader bug
<i>Paradasynus spinosus</i>	squash bug
<i>Veneza phyllopis</i>	leaf-footed bug
Lygaeidae	
<i>Nysius vinitor</i>	Rutherglen bug
Miridae	
<i>Austropeplus</i> sp.	citrus blossom bug
Pentatomidae	
<i>Antestia variegata</i>	antestia bug
<i>Antestiopsis orbitalis</i>	-
<i>Antestiopsis variegata</i>	antestia bug
<i>Biprorulus bibax</i>	spined citrus bug
<i>Glaucias subpunctatus</i>	polished green stink bug
<i>Halyomorpha mista</i>	brown-marmorated stink bug
<i>Musgraveia sulciventris</i>	bronze orange bug
<i>Plautia stali</i>	oriental stink bug
<i>Rhynchocoris humeralis</i>	pentatomid bug
Unknown Hemiptera	
<i>Holopterna vulga</i>	bug
Homoptera	
Aleyrodidae	
<i>Aleurocanthus citripardus</i>	whitefly
<i>Aleurocanthus spiniferus</i>	orange spiny whitefly
<i>Aleurocanthus</i> spp.	whiteflies
<i>Aleurocanthus woglumi</i>	citrus blackfly
<i>Aleurodicus dispersus</i>	spiralling whitefly
<i>Aleurolobus marlatti</i>	Marlatt whitefly
<i>Aleuroplatus</i> sp.	whitefly
<i>Aleurothrixus floccosus</i>	woolly whitefly
<i>Aleurotuba jelinekii</i>	-
<i>Aleurotuberculatus aucubae</i>	aucuba whitefly

<i>Bemisia citricola</i>	-
<i>Dialeurodes citri</i>	citrus whitefly
<i>Dialeurodes citrifolii</i>	cloudywinged whitefly
<i>Dialeurolonga</i> sp.	-
<i>Parabemisia myricae</i>	Japanese bayberry whitefly
<i>Siphoninus phillyreae</i>	phillyrea whitefly
Aphididae	
<i>Aphis fabae</i>	bean aphid
<i>Aulacorthum magnoliae</i>	Japanese elder aphid
Cicadellidae	
<i>Asymmetrasca decedens</i>	leafhopper
<i>Circulifer opacipennis</i>	-
<i>Circulifer tenellus</i>	beet leafhopper
<i>Cuerna costalis</i>	leafhopper
<i>Edwardsiana flavescens</i>	leafhopper
<i>Empoasca bodenheimeri</i>	-
<i>Empoasca citrura</i>	green citrus leafhopper
<i>Empoasca decipiens</i>	green leafhopper
<i>Empoasca distinguenda</i>	-
<i>Empoasca fabae</i>	potato leafhopper
<i>Empoasca onukii</i>	tea green leafhopper
<i>Homalodisca coagulata</i>	glassy-winged sharpshooter
<i>Homalodisca lacerta</i>	-
<i>Jacobiasca lybica</i>	cotton jassid
<i>Neoliturus haematoceps</i>	leafhopper
<i>Penthimiola bella</i>	citrus leafhopper
<i>Scaphytopius nitridus</i>	leafhopper
Cicadidae	
<i>Cryptotympana facialis</i>	black cicada
<i>Meimuna opalifera</i>	elongate cicada
Coccidae	
<i>Ceroplastes floridensis</i>	Florida wax scale
<i>Ceroplastes japonicus</i>	pink wax scale
<i>Ceroplastes rubens</i>	red wax scale
<i>Ceroplastes rusci</i>	fig wax scale
<i>Coccus celatus</i>	-
<i>Coccus pseudomagnoliarum</i>	citricola scale
<i>Coccus viridis</i>	green scale
<i>Cribrolecanium andersoni</i>	white powdery scale
<i>Gascardia brevicauda</i>	white waxy scale
<i>Protospulvinaria pyriformis</i>	pyriform scale
<i>Pulvinaria aethiopica</i>	soft green scale
<i>Pulvinaria aurantii</i>	citrus cottony scale
<i>Pulvinaria cellulosa</i>	pulvinaria scale
<i>Saissetia citricola</i>	citrus string cottony scale
<i>Saissetia somereni</i>	-
Dactylopiidae	
<i>Dactylopius filamentosis</i>	-
<i>Dactylopius vastator</i>	-
Diaspididae	
<i>Aonidiella citrina</i>	yellow scale
<i>Chrysomphalus aonidium</i>	Florida red scale
<i>Chrysomphalus bifasciculatus</i>	brown scale
<i>Chrysomphalus dictyospermi</i>	dictyospermum scale
<i>Chrysomphalus pinnulifera</i>	false purple scale
<i>Ischnaspis longirostris</i>	black thread scale
<i>Lepidosaphes beckii</i>	purple scale
<i>Lepidosaphes gloverii</i>	Glover scale
<i>Parlatoria ziziphi</i>	black parlatoria scale
<i>Pseudaonidia duplex</i>	camphor scale
<i>Selenaspis articulatus</i>	West Indian red scale
<i>Unaspis citri</i>	citrus snow scale

<i>Unaspis yanonensis</i>	Japanese citrus scale
Flatidae	
<i>Colgar peracuta</i>	-
<i>Geisha distinctissima</i>	green broad-winged planthopper
<i>Lawana conspersa</i>	green flatid planthopper
<i>Metcalfa pruinosa</i>	planthopper
Fulgoridae	
<i>Anzora unicolor</i>	-
Margarodidae	
<i>Drosicha howardi</i>	persimmon mealybug
<i>Icerya seychellarum</i>	Seychelles scale
Ortheziidae	
<i>Nipponorthezia ardisiae</i>	ensign scale
Pseudococcidae	
<i>Alloccoccus</i> spp.	-
<i>Ferrisia consobrina</i>	mealybug
<i>Ferrisia virgata</i>	striped mealybug
<i>Nipaecoccus vastator</i>	nipa mealybug
<i>Nipaecoccus viridis</i>	hibiscus mealybug
<i>Paracoccus burnerae</i>	spherical mealybug
<i>Planococcus kraunhiae</i>	Japanese wisteria mealybug
<i>Planococcus lilacinus</i>	citrus mealybug
<i>Planococcus minor</i>	passionvine mealybug
<i>Pseudococcus citriculus</i>	smaller citrus mealybug
<i>Pseudococcus commonus</i>	-
<i>Pseudococcus filamentosus</i>	mealybug
<i>Rastrococcus spinosus</i>	mealybug
<i>Rhizoecus kondonis</i>	Kondo mealybug
Psyllidae	
<i>Diaphorina citri</i>	citrus psyllid
<i>Trioza erytrae</i> [vector]	citrus psyllid
Ricanidae	
<i>Scolypopa</i> sp.	-
Tropiduchidae	
<i>Tambinia</i> sp.	-
Hymenoptera	
Aphelinidae	
<i>Aphytis africanus</i> [Animals Biosecurity]	-
<i>Aphytis holoxanthus</i> [Animals Biosecurity]	-
<i>Aphytis lepidosaphes</i> [Animals Biosecurity]	-
<i>Aphytis lingnanensis</i> [Animals Biosecurity]	-
<i>Aphytis melinus</i> [Animals Biosecurity]	-
<i>Azotus platensis</i> [Animals Biosecurity]	-
<i>Cales noacki</i> [Animals Biosecurity]	-
<i>Cales orchamoplati</i> [Animals Biosecurity]	-
<i>Centrodora penthimiae</i> [Animals Biosecurity]	-
<i>Coccophagus caridei</i> [Animals Biosecurity]	-
<i>Coccophagus pulvinariae</i> [Animals Biosecurity]	-
<i>Encarsia ectophaga</i> [Animals Biosecurity]	-
<i>Encarsia lahorensis</i> [Animals Biosecurity]	-
<i>Encarsia lounsburyi</i> [Animals Biosecurity]	-
<i>Encarsia opulenta</i> [Animals Biosecurity]	-
<i>Encarsia smithi</i> [Animals Biosecurity]	-
<i>Eretmocerus serius</i> [Animals Biosecurity]	-
<i>Marietta connecta</i> [Animals Biosecurity]	-
<i>Marietta leopardina</i> [Animals Biosecurity]	-
Braconidae	
<i>Apanteles aristotalilae</i> [Animals Biosecurity]	-
<i>Biosteres longicaudatus</i> [Animals Biosecurity]	-
<i>Pholetesor ornigis</i> [Animals Biosecurity]	-
Encyrtidae	
<i>Anicetus beneficus</i> [Animals Biosecurity]	-

<i>Comperiella bifasciata</i> [Animals Biosecurity]	-
<i>Habrolepis rouxi</i> [Animals Biosecurity]	-
<i>Leptomastix dactylopii</i> [Animals Biosecurity]	parasitic wasp
<i>Metaphycus helvolus</i> [Animals Biosecurity]	-
<i>Metaphycus luteolus</i> [Animals Biosecurity]	-
<i>Metaphycus stanleyi</i> [Animals Biosecurity]	-
<i>Metaphycus varius</i> [Animals Biosecurity]	-
<i>Psyllaephagus pulvinatus</i> [Animals Biosecurity]	-
Eulophidae	
<i>Aprostocetus ceroplastae</i> [Animals Biosecurity]	-
<i>Elachertus fenestratus</i> [Animals Biosecurity]	-
<i>Tamarixia radiatus</i> [Animals Biosecurity]	-
Eupelmidae	
<i>Anastatus biproruli</i> [Animals Biosecurity]	-
Eurytomidae	
<i>Bruchophagus fellis</i>	citrus gall midge
Formicidae	
<i>Acromyrmex octospinosus</i>	leaf-cutting ant
<i>Anoplolepis braunsi</i> [Animals Biosecurity]	-
<i>Anoplolepis custodiens</i>	ant
<i>Anoplolepis steingroeveri</i> [Animals Biosecurity]	black ant
<i>Atta cephalotes</i>	leaf-cutting ant
<i>Atta sexdens</i>	-
<i>Atta texana</i>	Texas leaf-cutting ant
<i>Camponotus rufoglaucus</i>	-
<i>Crematogaster castanea</i>	-
<i>Crematogaster liengmei</i>	-
<i>Crematogaster peringueyi</i> [Animals Biosecurity]	cocktail ant
<i>Lepisiota capensis</i> [Animals Biosecurity]	-
<i>Myrmecaria natalensis</i>	-
<i>Pheidole tenuinodis</i>	ant
<i>Polyrhachis schistaceus</i>	ant
<i>Solenopsis invicta</i> [Animals Biosecurity]	red imported fire ant
<i>Tapinoma arnoldi</i>	-
<i>Technomyrmex albipes foreli</i> [Animals Biosecurity]	-
Mymaridae	
<i>Chaetomyrmex gracile</i> [Animals Biosecurity]	-
<i>Chaetomyrmex lepidum</i> [Animals Biosecurity]	-
<i>Gonatocerus incomptus</i> [Animals Biosecurity]	-
Platygasteridae	
<i>Amitus hesperidum</i> [Animals Biosecurity]	-
<i>Amitus spiniferus</i> [Animals Biosecurity]	-
<i>Fidiobia citri</i> [Animals Biosecurity]	-
Scelionidae	
<i>Trissolcus oeneus</i> [Animals Biosecurity]	-
<i>Trissolcus oenone</i> [Animals Biosecurity]	-
<i>Trissolcus ogyges</i> [Animals Biosecurity]	-
Signiphoridae	
<i>Signiphora fax</i> [Animals Biosecurity]	-
<i>Signiphora flavella</i> [Animals Biosecurity]	-
<i>Signiphora perpauca</i> [Animals Biosecurity]	-
Trichogrammatidae	
<i>Trichogramma platneri</i> [Animals Biosecurity]	-
Vespidae	
<i>Polistes</i> spp. [Animals Biosecurity]	paper wasps
Isoptera	
Termitidae	
<i>Odontotermes lokanandi</i>	termite
Lepidoptera	
Arctiidae	
<i>Lemyra imparilis</i>	mulberry tiger moth
Blastobasidae	

<i>Holcocera iceryaeella</i>	-
Cosmopterigidae	
<i>Pyroderces rileyi</i>	pink scavenger caterpillar
Geometridae	
<i>Anacamptodes fragilaria</i>	koa haole looper
<i>Ascotis selenaria reciprocaria</i>	citrus looper
<i>Gymnoscelis rufifasciata</i>	geometrid moth
<i>Hyposidra talaca</i>	-
Gracillariidae	
<i>Phyllocnistis citrella</i>	citrus leafminer
Hepialidae	
<i>Endoclita excrescens</i>	Japanese swift moth
<i>Endoclita sinensis</i>	-
Lycaenidae	
<i>Virachola isocrates</i>	pomegranate butterfly
Lymantriidae	
<i>Orgyia vetusta</i>	western tussock moth
Metarbelidae	
<i>Indarbela tetraonis</i>	stem borer
Noctuidae	
<i>Arcte coerula</i>	fruit-piercing moth
<i>Eudocima fullonia</i>	fruit-piercing moth
<i>Helicoverpa assulta</i>	cape gooseberry budworm
<i>Helicoverpa punctigera</i>	oriental tobacco budworm
<i>Tiracola plagiata</i>	banana fruit caterpillar
<i>Xylomyges curialis</i>	noctuid moth
Nymphalidae	
<i>Charaxes jasius</i>	nymphalid butterfly
Oecophoridae	
<i>Psorosticha melanocrepida</i>	citrus leafroller
<i>Psorosticha zizyphi</i>	citrus leafroller
<i>Stathmopoda auriferella</i>	apple heliodinid
Papilionidae	
<i>Papilio aegeus aegeus</i>	-
<i>Papilio anactus</i>	small citrus butterfly
<i>Papilio cresphontes</i>	orange dog
<i>Papilio dardanus cenea</i>	-
<i>Papilio demodocus</i>	orange dog
<i>Papilio demoleus demoleus</i>	-
<i>Papilio helenus nicconicolens</i>	-
<i>Papilio machaon asiatica</i>	-
<i>Papilio memnon</i>	citrus swallowtail
<i>Papilio memnon thunbergii</i>	-
<i>Papilio nireus lyaeus</i>	-
<i>Papilio polytes polytes</i>	-
<i>Papilio protenor demetrius</i>	-
<i>Papilio xuthus</i>	citrus swallowtail
<i>Papilio zelicaon</i>	anise swallowtail
Psychidae	
<i>Eumeta hardenbergi</i>	-
<i>Eumeta japonica</i>	-
<i>Eumeta minuscula</i>	tea bagworm
<i>Eumeta moddermanni</i>	-
<i>Hyalarcta huebneri</i>	leaf case moth
Pyralidae	
<i>Apomyelois ceratoniae</i>	date pyralid
Tortricidae	
<i>Adoxophyes</i> sp.	-
<i>Amorbia cuneana</i>	leafroller
<i>Archips argyrospilus</i>	fruit tree leafroller
<i>Archips machlopiis</i>	leafroller
<i>Archips occidentalis</i>	leafroller

<i>Archips rosanus</i>	rose leafroller
<i>Argyrotaenia citrana</i>	orange tortrix
<i>Cacoecimorpha pronubana</i>	carnation leafroller
<i>Cryptophlebia batrachopa</i>	-
<i>Cryptophlebia leucotreta</i>	false codling moth
<i>Homona magnanima</i>	oriental tea tortrix
<i>Isotenes miserana</i>	orange fruitborer
<i>Platynota stultana</i>	omnivorous leafroller
<i>Tortrix capensana</i>	tortricid moth
Yponomeutidae	
<i>Prays citri</i>	citrus flower moth
<i>Prays parilis</i>	citrus flower moth
Neuroptera	
Chrysopidae	
<i>Chrysopa oculata</i> [Animals Biosecurity]	-
Coniopterygidae	
<i>Coniopteryx vicina</i> [Animals Biosecurity]	-
<i>Conwentzia barretti</i> [Animals Biosecurity]	-
Orthoptera	
Acrididae	
<i>Zonocerus elegans</i>	elegant grasshopper
Gryllidae	
<i>Ornebius kanetataki</i>	cricket
Tettigoniidae	
<i>Caedicia</i> sp.	-
<i>Holochlora japonica</i>	Japanese broadwinged katydid
<i>Microcentrum retinerve</i>	smaller angular-winged katydid
<i>Scudderia furcata</i>	fork-tailed bush katydid
Psocoptera	
Archipsocidae	
<i>Archipsocus</i> sp.	bark louse
Thysanoptera	
Aeolothripidae	
<i>Franklinothrips vespiformis</i> [Animals Biosecurity]	-
Thripidae	
<i>Chaetanaphothrips orchidii</i>	banana rust thrips
<i>Leptothrips mali</i>	black hunter thrips
<i>Scirtothrips aurantii</i>	citrus thrips
<i>Scirtothrips citri</i>	citrus thrips
<i>Scirtothrips dorsalis</i>	chilli thrips
<i>Scirtothrips mangiferae</i>	mango thrips
<i>Scolothrips sexmaculatus</i> [Animals Biosecurity]	-
<i>Taeniothrips kellyanus</i>	-
<i>Taeniothrips</i> sp.	-
<i>Thrips coloratus</i>	thrips
<i>Thrips flavus</i>	flower thrips
<i>Thrips palmi</i>	palm thrips
Unknown Insecta	
Unknown Insecta	
<i>Cosmophyllum pallidulum</i>	-
Mite	
Arachnida	
Acarina	
Acaridae	
<i>Thyreophagus entomophagus italicus</i> [Animals Biosecurity]	-
Anystidae	
<i>Anystis agilis</i> [Animals Biosecurity]	-
Eriophyidae	
<i>Aculops pelekassi</i>	eriophyid mite
<i>Tegolophus australis</i>	brown citrus mite

Phytoseiidae	
<i>Amblyseius addoensis</i> [Animals Biosecurity]	-
<i>Amblyseius citri</i> [Animals Biosecurity]	-
<i>Amblyseius swirskii</i> [Animals Biosecurity]	-
<i>Euseius hibisci</i> [Animals Biosecurity]	-
<i>Euseius scutalis</i> [Animals Biosecurity]	-
<i>Euseius stipulatus</i> [Animals Biosecurity]	-
<i>Euseius tularensis</i> [Animals Biosecurity]	-
<i>Iphiseius degenerans</i> [Animals Biosecurity]	predatory mite
<i>Typhlodromus athiasae</i> [Animals Biosecurity]	-
Stigmaeidae	
<i>Agistemus africanus</i> [Animals Biosecurity]	-
<i>Agistemus tranatalensis</i> [Animals Biosecurity]	-
<i>Eryngiopus siculus</i> [Animals Biosecurity]	-
Tarsonemidae	
<i>Tarsonemus cryptocephalus</i> [Animals Biosecurity]	-
Tenuipalpidae	
<i>Brevipalpus chilensis</i>	false spider mite
<i>Brevipalpus lewisi</i>	bunch mite
<i>Brevipalpus obovatus</i>	privet mite
<i>Tenuipalpus emeticae</i> [Animals Biosecurity]	-
<i>Tuckerella ornata</i>	-
<i>Ultratenuipalpus gonianaensis</i>	tenuipalpid mite
Tetranychidae	
<i>Calacarus citrifolii</i>	clover mite
<i>Eotetranychus kankitus</i>	tetranychid mite
<i>Eotetranychus lewisi</i>	big beaked plum mite
<i>Eotetranychus yumensis</i>	Yumi spider mite
<i>Eutetranychus africanus</i>	tetranychid mite
<i>Eutetranychus banksi</i>	Texas citrus mite
<i>Eutetranychus orientalis</i>	pear leaf blister mite
<i>Oligonychus mangiferus</i>	mango spider mite
<i>Tetranychus kanzawai</i>	kanzawa mite
Tuckerellidae	
<i>Tuckerella knorri</i>	hawthorn spider mite
Spider	
Arachnida	
Araneae	
Clubionidae	
<i>Cheiracanthium mildei</i> [Animals Biosecurity]	-
Theridiidae	
<i>Theridion</i> sp. [Animals Biosecurity]	-
Mollusc	
Gastropoda	
Stylommatophora	
Achatinidae	
<i>Achatina immaculata</i>	-
<i>Lissachatina immaculata</i>	snail
Bradybaenidae	
<i>Acusta despecta sieboldiana</i>	snail
Subulinidae	
<i>Rumina decollata</i>	snail
Urocyclidae	
<i>Urocyclus flavescens</i>	-
<i>Urocyclus kirkii</i>	-
Fungus	
Ascomycota	
Diaporthales	
Valsaceae	

<i>Diaporthe rudis</i> (anamorph <i>Phomopsis rudis</i>)	phomopsis canker
Dothideales	
Elsinoaceae	
<i>Elsinoe australis</i>	sweet orange scab
Capnodiaceae	
<i>Capnodium citri</i>	sooty mould
Didymosphaeriaceae	
<i>Didymosphaeria</i> sp.	--
Mycosphaerellaceae	
<i>Guignardia citricarpa</i> (anamorph <i>Phyllosticta citricarpa</i>) [black spot strain]	citrus black spot
<i>Mycosphaerella citri</i> (anamorph <i>Stenella citri-grisea</i>)	rind blotch
<i>Mycosphaerella horii</i>	greasy spot
Patellariales	
Patellariaceae	
<i>Rhytidhysterium rufulum</i>	--
Saccharomycetales	
Saccharomycetaceae	
<i>Debaryomyces hansenii</i>	-
<i>Galactomyces citri-aurantii</i> (anamorph <i>Geotrichum citri-aurantii</i>)	sour rot
Basidiomycota: Basidiomycetes	
Boletales	
Coniophoraceae	
<i>Coniophora eremophila</i>	brown wood rot
Basidiomycota: Teliomycetes	
Septobasidiales	
Septobasidiaceae	
<i>Septobasidium pseudopedicellatum</i>	felt fungus
Mitosporic Fungi	
Unknown Mitosporic Fungi	
Unknown Mitosporic Fungi	
<i>Sphaceloma fawcettii</i> var. <i>scabiosa</i>	-
Mitosporic Fungi (Coelomycetes)	
Sphaeropsidales	
Sphaerioidaceae	
<i>Macrophoma mantegazziana</i>	-
<i>Phoma erratica</i> var. <i>mikan</i>	--
<i>Phoma tracheiphila</i>	mal secco
<i>Phomopsis</i> sp.	rot
<i>Septoria</i> spp.	-
<i>Sphaeropsis tumefaciens</i>	stem gall
Unknown Coelomycetes	
Unknown Coelomycetes	
<i>Aschersonia placenta</i> [Animals Biosecurity]	--
<i>Gloeosporium foliicolum</i>	fruit rot
Mitosporic Fungi (Hyphomycetes)	
Hyphomycetales	
Dematiaceae	
<i>Alternaria limicola</i>	-
<i>Alternaria pellucida</i>	--
<i>Cercospora microsora</i>	-
<i>Phaeoramularia angolensis</i>	cercospora spot
<i>Stemphylium rosarium</i>	--
<i>Ulocladium obovoideum</i>	ulocladium rot
Unknown Hyphomycetes	
Unknown Hyphomycetes	
<i>Aureobasidium</i> sp.	-
<i>Hirsutella thompsonii</i> [Animals Biosecurity]	--
<i>Isaria</i> sp. [Animals Biosecurity]	-
<i>Oidium tingitaninum</i>	powdery mildew
<i>Sporobolomyces roseus</i>	--

<i>Stenella</i> sp.	--
Zygomycota: Zygomycetes	
Glomales	
Glomaceae	
<i>Glomus etunicatum</i> [Animals Biosecurity]	--
Mucorales	
Syncephalastraceae	
<i>Syncephalastrum racemosum</i>	--
Bacterium	
Bacterium family unknown	
<i>Liberobacter africanum</i>	citrus greening bacterium
<i>Liberobacter asiaticum</i>	citrus greening bacterium
<i>Liberobacter</i> sp.	citrus greening bacterium
<i>Spiroplasma citri</i>	citrus stubborn
Pseudomonadaceae	
<i>Burkholderia cepacia</i>	sour skin
<i>Xanthomonas axonopodis</i> pv. <i>citri</i>	citrus canker
<i>Xanthomonas campestris</i> pv. <i>aurantifolii</i>	-
<i>Xanthomonas campestris</i> pv. <i>citrumelo</i>	citrus bacterial spot
<i>Xylella fastidiosa</i>	Pierce's disease
<i>Xylella fastidiosa</i> pv. <i>citri</i>	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	-
satsuma dwarf nepovirus [Natsudaikai dwarf strain]	-
xyloporosis viroid	-
yellow vein clearing of lemon	-
Phytoplasma	
<i>Candidatus</i> Phytoplasma <i>aurantifolia</i>	witches' broom phytoplasma
rubbery wood	-
Disease of unknown aetiology	
Australian citrus dieback	-
blind pocket	-
bud union disease	-
citrus blight disease	-
citrus fatal yellows	-
citrus impietratura disease	-
citrus sunken vein disease	-
concave gum	-
crisacortis	-

gum pocket	-
gummy bark	-
kassala disease	-
lemon sieve tube necrosis	-
shell bark of lemons	-
zonate chlorosis	-

Inspection, Testing and Treatment Requirements for *Poncirus**

ORGANISM TYPES	MPI ACCEPTABLE METHODS
Insects	Visual inspection AND approved insecticide treatments (Refer to section 2.2.1.6 of the basic conditions).
Mites	Visual inspection AND approved miticide treatments (Refer to section 2.2.1.6 of the basic conditions).
Fungus	Country freedom OR growing season inspection for symptom expression.
Bacterium	
<i>Burkholderia cepacia</i>	Growing season inspection for symptom expression.
<i>Liberobacter africanum</i>	Country freedom OR graft-inoculated sweet oranges, orange pineapple, 18 to 25°C.
<i>Liberobacter asiaticum</i>	Country freedom OR graft-inoculated sweet oranges, orange pineapple, 18 to 25°C.
<i>Spiroplasma citri</i>	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 (> 30°C) and incubate cultures at 32°C.
<i>Xanthomonas axonopodis</i> pv. <i>citri</i>	Country freedom/shoot tip grafting bioassay/detached leaf bioassay/ PCR OR suitable citrus indicator.
<i>Xanthomonas campestris</i> pv. <i>aurantifolii</i>	Country freedom/shoot tip grafting bioassay/detached leaf bioassay/ PCR OR suitable citrus indicator.
<i>Xanthomonas campestris</i> pv. <i>citrumelo</i>	Country freedom/shoot tip grafting bioassay/detached leaf bioassay/ PCR OR suitable citrus indicator.
<i>Xylella fastidiosa</i>	Country freedom/shoot tip grafting bioassay/ PCR/ELISA OR suitable citrus indicator.
<i>Xylella fastidiosa</i> pv. <i>citri</i>	Country freedom/shoot tip grafting bioassay PCR/ELISA OR suitable citrus indicator.
Virus	
citrus chlorotic dwarf	Country freedom OR graft inoculated rough lemon at cool temperatures 18 to 25°C.
citrus infectious variegation ilarvirus	Country freedom OR graft inoculated citron, sour orange, lemon, cidro etrog. Grow indicators at cool temperatures 18 to 25°C.
citrus infectious variegation ilarvirus [crinkly leaf strain]	Country freedom OR graft inoculated citron, sour orange, lemon, cidro etrog. Grow indicators at cool temperatures 18 to 25°C.
citrus leaf rugose ilarvirus	Country freedom OR graft inoculated Mexican lime or sour orange. Grow indicators at cool temperatures 18 to 25°C.
citrus leathery leaf virus	Country freedom OR Rangpur lime. Grow indicators at cool temperatures 18 to 25°C.
citrus leprosis rhabdovirus	Country freedom OR graft inoculated sweet orange. Grow indicators at cool temperatures 18 to 25°C.
citrus mosaic virus	Country freedom OR graft inoculated satsums. Grow indicators at cool temperatures 18 to 25°C.
citrus ringspot virus	Country freedom OR graft inoculated dweet tangor, sweet orange, mandarin (Parson's Special). Grow indicators at cool temperatures 18 to 25°C.
citrus tatter leaf capillovirus	Country freedom OR graft inoculated Rusk citrange, rough lemon, <i>Citrus excelsa</i> , citrange (Troyer). Grow indicators at cool temperatures 18 to 25°C.
citrus tristeza closterovirus [strains not in New Zealand]	Country freedom OR ELISA, graft inoculated Mexican lime, sour orange and <i>Citrus excelsa</i> . Grow indicators at cool temperatures 18 to 25°C.
citrus yellow mosaic badnavirus	Country freedom OR graft inoculated sweet orange, sour orange and citron.
citrus yellow mottle virus	Country freedom OR other suitable test.
Indian citrus mosaic badnavirus	Country freedom OR graft inoculated sweet orange at hot temperature 27 to 32°C.
navel orange infectious mottling virus	Country freedom OR graft inoculated Satsums. Grow indicators at cool temperatures 18 to 25°C.
satsuma dwarf nepovirus	Country freedom OR graft inoculated satsums. Grow indicators at cool temperatures 18 to 25°C.

ORGANISM TYPES	MPI ACCEPTABLE METHODS
satsuma dwarf nepovirus [Natsudaidai dwarf strain]	Country freedom OR graft inoculated satsums. Grow indicators at cool temperatures 18 to 25°C.
yellow vein clearing of lemon	Country freedom OR graft inoculated Mexican lime or sour orange. Grow indicators at cool temperatures 18 to 25°C.
Viroid	
citrus cachexia viroid	Country freedom OR SPAGE and PCR on graft inoculated citron extract. Grow citron at hot temperature 27 to 32°C.
citrus variable viroid	Country freedom OR SPAGE and PCR on graft inoculated citron extract. Grow citron at hot temperature 27 to 32°C.
citrus viroids (groups I-IV)	Country freedom OR SPAGE and PCR on graft inoculated citron extract. Grow citron at hot temperature 27 to 32°C.
dwarfing factor viroid	Country freedom OR SPAGE and PCR on graft inoculated citron extract. Grow citron at hot temperature 27 to 32°C.
xyloporosis viroid	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.
Disease of unknown aetiology	
Australian citrus dieback	Country freedom OR other suitable test
blind pocket	Country freedom OR graft inoculated dweet tangor, sweet orange or <i>Citrus excelsa</i> . Grow indicators at cool temperatures 18 to 25°C.
bud union disease	Country freedom OR other suitable test
citrus blight disease	None (cuttings collected from blight free area). Inspect source tree after 2 years before releasing from quarantine.
citrus fatal yellows	Country freedom OR graft inoculated <i>Citrus macrophylla</i> .
citrus impietratura disease	Country freedom OR graft inoculated dweet tangor or sweet orange. Growth indicators at cool temperatures 18 to 25°C.
citrus sunken vein disease	Country freedom OR other suitable test.
concave gum	Country freedom OR graft inoculated dweet tangor, sweet orange or <i>Citrus excelsa</i> . Grow indicators at cool temperatures 18 to 25°C.
crisacortis	Country freedom OR graft inoculated dweet tangor, sweet orange or <i>Citrus excelsa</i> . Grow indicators at cool temperatures 18 to 25°C.
gum pocket	Country freedom OR graft inoculated dweet tangor, sweet orange or <i>Citrus excelsa</i> . Grow indicators at cool temperatures 18 to 25°C.
gummy bark	Country freedom OR SPAGE of graft inoculated citron extract. Grow citron at hot temperature 27 to 32°C.
kassala disease	Country freedom, cuttings collected from kassala free area.
lemon sieve tube necrosis	Country freedom OR other suitable test.
shell bark of lemons	Country freedom OR other suitable test.
zonate chlorosis	Country freedom, cuttings collected from kassala free area.
Phytoplasma	
<i>Candidatus</i> phytoplasma aurantifolia	Country freedom OR graft inoculated lime. Grow indicators at cool temperatures 18 to 25°C.
rubbery wood	Country freedom OR graft inoculated sweet orange or lemon. Grow citron at hot temperature 27 to 32°C.

* Country freedom is accepted as equivalence to a treatment.

Notes:

1. The unit for testing is defined in section 2.3.2.1.
2. With prior notification, MPI 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:

Approved 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 fimbriata*, *Marssonina* spp.; Uredinales; *Xylella fastidiosa*; *Phytophthora ramorum*; virus diseases

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

A. For Whole Plants:

PEQ: Level 3
Minimum Period: 3 months

- a. Conditions for *Ceratocystis fimbriata* (section 2.2.1.8)
Note: Only applies to members of the *Populus* genus
- b. Conditions for *Phytophthora ramorum* (section 2.2.1.11)
- c. Conditions for *Xylella fastidiosa* (section 2.2.1.12)

B. For Tissue Cultures:

As for **Standard Entry Conditions for Tissue Cultures** - see Section 2.2.2, but subject to examination at a MPI-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 *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 MPI-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 MPI-accredited facilities in any country

An offshore accredited facility is a facility that has been accredited to the Standard PIT.OS.TRA.ACPQF to undertake phytosanitary activities. The operator of the accredited facility must also have an agreement with MPI 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 MPI 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 MPI and the [name of the MPI-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 MPI and the [name of the MPI-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 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.

Alternatively:

Following 6 months of continuous active growth in level 2 post-entry quarantine, provided all required testing has been completed, no regulated organisms have been detected and based on a direction from the Inspector, the plants can be moved to a L1 post-entry quarantine facility for an additional 6 months of active growth. Upon completion of the 6 months in L2 and 6 months in L1, the plants can be given biosecurity clearance.

3.2 *Prunus* 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 *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 MPI 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 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

Eremnus atratus

black weevil

Eremnus cerealis

western province grain worm

Eremnus setulosus

grey weevil

Naupactus xanthographus

fruit tree weevil

Orthorhinus cylindrirostris

elephant weevil

Otiorhynchus 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

<i>Oxycarenus arctatus</i>	coon bug
<i>Oxycarenus exitiosus</i>	fruit tree stinkbug
Miridae	
<i>Creontiades dilutus</i>	green mirid
<i>Lygus cerasi</i>	-
<i>Lygus elisus</i>	pale legume bug
<i>Lygus lineolaris</i>	tarnished plant bug
Pentatomidae	
<i>Acrosternum hilare</i>	green stink bug
<i>Antestiopsis orbitalis</i>	-
<i>Euschistus servus</i>	brown stink bug
<i>Tessaratoma papillosa</i>	litchee stink bug
Homoptera	
Aleyrodidae	
<i>Parabemisia myricae</i>	Japanese bayberry whitefly
Aphididae	
<i>Aphis spiraecola</i> [vector]	spirea aphid
<i>Brachycaudus amygdalinus</i>	short tailed almond aphid
<i>Brachycaudus cardui</i>	thistle aphid
<i>Brachycaudus schwartzi</i>	aphid
<i>Brachycaudus tragopogonis</i>	-
<i>Dysaphis plantaginea</i>	rosy apple aphid
<i>Hyalopterus amygdali</i>	peach aphid
<i>Hyalopterus pruni</i>	mealy plum aphid
<i>Hysteroneura setariae</i>	rusty plum aphid
<i>Myzus varians</i>	peach-potato aphid
<i>Pterochloroides persicae</i>	giant brown bark aphid
Asterolecaniidae	
<i>Asterolecanium pustulans</i>	oleander pit scale
Cicadellidae	
<i>Edwardsiana rosae</i>	rose leafhopper
Coccidae	
<i>Ceroplastes floridensis</i>	Florida wax scale
<i>Ceroplastes japonicus</i>	pink wax scale
<i>Ceroplastes rubens</i>	red wax scale
<i>Eulecanium pruinatum</i>	frosted scale
<i>Parthenolecanium persicae</i>	European peach scale
<i>Pulvinaria innumerabilis</i>	cottony maple scale
<i>Sphaerolecanium prunastri</i>	globose scale
Diaspididae	
<i>Aonidiella citrina</i>	yellow scale
<i>Aonidiella orientalis</i>	oriental yellow scale
<i>Aspidiotus destructor</i>	coconut scale
<i>Chrysomphalus aonidum</i>	Florida red scale
<i>Chrysomphalus dictyospermi</i>	dictyospermum scale
<i>Diaspidiotus africanus</i>	grey scale
<i>Diaspidiotus ancyclus</i>	Putnam scale
<i>Epidiaspis leperii</i>	Italian pear scale
<i>Parlatoria oleae</i>	olive scale
<i>Pseudaulacaspis pentagona</i>	white peach scale
Flatidae	
<i>Metcalfa pruinosa</i>	planthopper
Margarodidae	
<i>Icerya seychellarum</i>	Seychelles scale
Membracidae	

<i>Ceresa alta</i>	-
<i>Ceresa bubalus</i>	buffalo tree hopper
<i>Stictocephala inermis</i>	-
Pseudococcidae	
<i>Maconellicoccus hirsutus</i>	pink hibiscus mealybug
<i>Pseudococcus maritimus</i>	grape mealybug
Hymenoptera	
Bethylidae	
<i>Goniozus</i> sp.	-
Eulophidae	
<i>Colpoclypeus florus</i>	-
Ichneumonidae	
<i>Phytodietus celcissimus</i>	-
Trichogrammatidae	
<i>Trichogrammatomyia tortricis</i>	-
Isoptera	
Kalotermitidae	
<i>Bifiditermes beasoni</i>	-
Rhinotermitidae	
<i>Coptotermes heimi</i>	-
<i>Heterotermes indicola</i>	-
Termitidae	
<i>Microtermes unicolor</i>	termite
<i>Odontotermes lokanandi</i>	termite
Lepidoptera	
Arctiidae	
<i>Hyphantria cunea</i>	fall webworm
Choreutidae	
<i>Choreutis pariana</i>	apple leaf skeletonizer
Cossidae	
<i>Cossus cossus</i>	goat moth
Gelechiidae	
<i>Anarsia lineatella</i>	peach twig borer
<i>Recurvaria nanella</i>	lesser bud moth
<i>Recurvaria syriactis</i>	bud moth
Geometridae	
<i>Alsophila pometaria</i>	fall cankerworm
<i>Operophtera brumata</i>	winter moth
Gracillariidae	
<i>Phyllonorycter cerasicolella</i>	leafminer
Lasiocampidae	
<i>Malacosoma californicum fragile</i>	tent caterpillar
<i>Malacosoma disstria</i>	forest tent caterpillar
Limacodidae	
<i>Doratifera vulnerans</i>	mottled cup moth
<i>Latoia latistriga</i>	plum slug
Lymantriidae	
<i>Orgyia antiqua</i>	rusty tussock moth
<i>Orgyia gonostigma</i>	vapourer moth
Metarbelidae	
<i>Indarbela quadrinotata</i>	wood-borer moth
Noctuidae	
<i>Alabama argillacea</i>	cotton leafworm
<i>Mamestra brassicae</i>	cabbage moth
<i>Peridroma saucia</i>	variegated cutworm
<i>Schizura concinna</i>	redhumped caterpillar
<i>Spodoptera frugiperda</i>	fall armyworm

<i>Xestia c-nigrum</i>	spotted cutworm
Notodontidae	
<i>Datana ministra</i>	yellow-necked caterpillar
Oecophoridae	
<i>Cryptophasa melanostigma</i>	fruit tree borer
<i>Maroga melanostigma</i>	fruit tree borer
Papilionidae	
<i>Papilio rutulus</i>	-
Pyralidae	
<i>Conogethes punctiferalis</i>	yellow peach moth
<i>Euzophera bigella</i>	quince moth
<i>Euzophera semifuneralis</i>	American plum borer
<i>Ostrinia nubilalis</i>	European corn borer
Saturniidae	
<i>Antheraea polyphemus</i>	emperor moth
Sesiidae	
<i>Synanthedon exitiosa</i>	peach tree borer
<i>Synanthedon pictipes</i>	lesser peach tree borer
Sphingidae	
<i>Sphinx drupiferarum</i>	plum sphinx
Tortricidae	
<i>Acleris minuta</i>	yellow headed fireworm
<i>Adoxophyes orana</i>	reticulated tortrix
<i>Archips argyrospilus</i>	fruit tree leafroller
<i>Archips oporanus</i>	fruit tree tortrix
<i>Archips podanus</i>	fruit tree tortrix
<i>Archips purpuranus</i>	-
<i>Archips rosanus</i>	rose leafroller
<i>Argyrotaenia citrana</i>	orange tortrix
<i>Argyrotaenia ljunghiana</i>	grey red-barred tortrix
<i>Argyrotaenia velutinana</i>	red-banded leafroller
<i>Choristoneura albaniana</i>	leafroller
<i>Choristoneura rosaceana</i>	oblique-banded leafroller
<i>Cryptoptila immersana</i>	ivy leafroller
<i>Cydia caryana</i>	hickory shuckworm
<i>Cydia packardi</i>	cherry fruitworm
<i>Cydia prunivora</i>	lesser appleworm
<i>Epichoristodes acerbella</i>	South African carnation worm
<i>Hedya dimidioalba</i>	green budworm
<i>Pandemis cerasana</i>	barred fruit tree tortrix
<i>Pandemis heparana</i>	dark fruit tree tortrix
<i>Platynota flavedana</i>	apple bud moth
<i>Platynota idaeusalis</i>	tufted apple bud moth
<i>Proeulia auraria</i>	grapevine leafroller
<i>Proeulia chrysopteris</i>	grapevine leaf-rolling tortricid
<i>Sparganothis reticulatana</i>	leafroller
<i>Spilonota ocellana</i>	eyespotted bud moth
<i>Tortrix capensana</i>	tortricid moth
<i>Tortrix cinderella</i>	-
Orthoptera	
Acrididae	
<i>Acanthacris ruficornis</i>	-
<i>Phymateus leprosus</i>	bush locust
Thysanoptera	
Thripidae	
<i>Frankliniella tritici</i>	eastern flower thrips
<i>Taeniothrips meridionalis</i>	thrips

<i>Thrips angusticeps</i>	cabbage thrips
<i>Thrips flavus</i>	flower thrips

Mite

Arachnida

Acarina

Acaridae

<i>Caloglyphus haripuriensis</i>	acarid mite
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Eriophyidae

<i>Acalitus phloeoptes</i>	plum bud gall mite
<i>Aceria chinensis</i>	-
<i>Aculus fockeui</i> [vector]	eriphyid mite
<i>Cenopalpus lanceolatisetae</i>	-
<i>Cenopalpus pulcher</i>	flat scarlet mite
<i>Eptrimerus pyri</i>	pear leaf blister mite
<i>Eriophyes armeniacus</i>	-
<i>Eriophyes catacardiae</i>	-
<i>Eriophyes emarginatae</i>	eriphyid mite
<i>Eriophyes inaequalis</i>	eriphyid mite
<i>Eriophyes padi</i>	eriphyid mite
<i>Eriophyes similis</i>	eriphyid mite
<i>Phytoptus insidiosus</i>	pineapple fruit mite

Tarsonemidae

<i>Tarsonemus pruni</i>	tarsonemid mite
<i>Tarsonemus randsi</i>	-
<i>Tarsonemus smithi</i>	tarsonemid mite

Tenuipalpidae

<i>Rhinotergum schestovici</i>	mite
<i>Tenuipalpus persicae</i>	false spider mite
<i>Tenuipalpus taonicus</i>	false spider mite

Tetranychidae

<i>Aplonobia citri</i>	Japanese citrus rust mite
<i>Bryobia rubrioculus</i> f. sp. <i>prunicola</i>	brown mite
<i>Eotetranychus boreus</i>	apricot spider mite
<i>Eotetranychus carpini</i>	tetranychid mite
<i>Eotetranychus carpini borealis</i>	yellow spider mite
<i>Eotetranychus pruni</i>	hickory scorch mite
<i>Eotetranychus uncatius</i>	Lewis spider mite
<i>Eutetranychus africanus</i>	African red spider mite
<i>Eutetranychus enodes</i>	tetranychid mite
<i>Eutetranychus orientalis</i>	pear leaf blister mite
<i>Oligonychus gossypii</i>	tetranychid mite
<i>Oligonychus mangiferus</i>	mango spider mite
<i>Tetranychus canadensis</i>	fourspotted spider mite
<i>Tetranychus kanzawai</i>	kanzawa mite
<i>Tetranychus neocaledonicus</i>	Mexican spider mite
<i>Tetranychus pacificus</i>	Pacific spider mite
<i>Tetranychus viennensis</i>	twospotted mite

Nematode

Secernentea

Tylenchida

Pratylenchidae

<i>Pratylenchus brachyurus</i>	root lesion nematode
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Fungus

Ascomycota

Calosphaeriales	
Calosphaeriaceae	
<i>Calosphaeria pulchella</i>	--
Diaporthales	
Valsaceae	
<i>Apiognomonium erythrostoma</i>	--
<i>Diaporthe decorticans</i>	-
<i>Diaporthe pennsylvanica</i>	-
<i>Diaporthe pruni</i>	-
<i>Leucostoma cincta</i> (anamorph <i>Cytospora cincta</i>)	canker
Dothideales	
Botryosphaeriaceae	
<i>Auerswaldiella puccinioides</i>	-
Mycosphaerellaceae	
<i>Mycosphaerella cerasella</i> (anamorph <i>Cercospora circumscissa</i>)	leaf spot
<i>Mycosphaerella nigerristigma</i>	-
<i>Mycosphaerella pruni-persicae</i> (anamorph <i>Miuraea persica</i>)	frosty mildew
Schizothyriaceae	
<i>Schizothyrium pomi</i> (anamorph <i>Zygophiala jamaicensis</i>)	fly speck
Zopfiaceae	
<i>Caryospora putaminum</i>	--
unknown Dothideales	
<i>Apiosporina morbosa</i>	black knot
Erysiphales	
Erysiphaceae	
<i>Sphaerotheca armeniaca</i>	--
Leotiales	
Dermateaceae	
<i>Blumeriella jaapii</i> (anamorph <i>Phloeosporrella padi</i>)	shot-hole
<i>Dermea cerasi</i> (anamorph <i>Foveostroma drupacearum</i>)	--
Sclerotiniaceae	
<i>Grovesinia pyramidalis</i> (anamorph <i>Cristulariella moricola</i>)	target spot
<i>Lambertella jasmini</i>	rot
<i>Lambertella pruni</i>	fruit rot
<i>Monilinia fructigena</i> (anamorph <i>Monilia fructigena</i>)	European brown rot
<i>Monilinia kusanoi</i>	leaf blight
<i>Monilinia seaveri</i>	twig blight
Phyllachorales	
Phyllachoraceae	
<i>Polystigma rubrum</i>	--
<i>Polystigma ussuriensis</i>	--
Taphrinales	
Taphrinaceae	
<i>Taphrina armeniaca</i>	witches' broom
<i>Taphrina communis</i>	bladder fruit
<i>Taphrina confusa</i>	--
<i>Taphrina flectans</i>	-
<i>Taphrina pruni-subcordatae</i>	--
Xylariales	
Xylariaceae	
<i>Xylaria longiana</i>	--

<i>Xylaria mali</i>	black root rot
unknown Ascomycota	
Hyponectriaceae	
<i>Physalospora perseae</i>	peach blister canker
Basidiomycota: Basidiomycetes	
Agaricales	
Strophariaceae	
<i>Pholiota squarrosa</i>	wood decay
Tricholomataceae	
<i>Armillaria bulbosa</i>	armillaria root rot
<i>Armillaria heimii</i>	-
<i>Armillaria luteobubalina</i>	armillaria root rot
<i>Armillaria mellea</i> (anamorph <i>Rhizomorpha subcorticalis</i>)	armillaria root rot
<i>Armillaria ostoyae</i>	armillaria root rot
<i>Armillaria tabescens</i>	armillaria root rot
Ganodermatales	
Ganodermataceae	
<i>Ganoderma brownii</i>	wood decay
<i>Ganoderma lobatum</i>	white soft decay
<i>Ganoderma lucidum</i> (anamorph <i>Polyporus lucidus</i>)	wood rot
<i>Ganoderma zonatum</i>	butt and stem rot
Hericiales	
Gloeocystidiellaceae	
<i>Gloeocystidiellum porosum</i>	--
<i>Laxitextum bicolor</i>	white rot
Hymenochaetales	
Hymenochaetaceae	
<i>Phellinus igniarius</i>	-
<i>Phellinus pomaceus</i>	white heart rot
<i>Phellinus prunicola</i>	-
Microascales	
Ceratocysticaceae	
<i>Ceratocystis fimbriata</i>	-
Poriales	
Coriolaceae	
<i>Coriopsis gallica</i>	white rot
<i>Fomes fomentarius</i>	wood decay
<i>Fomitopsis cajanderi</i>	wood decay
<i>Fomitopsis meliae</i>	wood decay
<i>Fomitopsis pinicola</i>	brown cubical rot
<i>Fomitopsis rosea</i>	brown pocket rot
<i>Fomitopsis spraguei</i>	butt rot
<i>Gloeophyllum sepiarium</i>	brown rot
<i>Gloeophyllum trabeum</i>	brown rot
<i>Heterobasidion annosum</i> (anamorph <i>Spiniger meineckellum</i>)	wood rot
<i>Laetiporus sulphureus</i> (anamorph <i>Sporotrichum versisporum</i>)	brown cubical rot
<i>Oxyporus latemarginatus</i>	wood rot
<i>Trametes velutina</i>	dieback
<i>Trichaptum bifforme</i>	white rot
<i>Tyromyces chioneus</i>	white rot
<i>Tyromyces tephroleucus</i>	-
Polyporaceae	
<i>Polyporus squamosus</i>	wood rot

Stereales	
Corticaceae	
<i>Phanerochaete arizonica</i>	white rot
<i>Phanerochaete crassa</i>	white rot
Cyphellaceae	
<i>Maireina marginata</i>	wood decay
Hyphodermataceae	
<i>Schizopora paradoxa</i>	wood rot
Sistotremataceae	
<i>Phymatotrichopsis omnivora</i>	Texas root rot
Steccherinaceae	
<i>Irpex lacteus</i>	wood rot
Stereaceae	
<i>Stereum strigoso-zonatum</i>	silver leaf
Thelephorales	
Thelephoraceae	
<i>Corticium koleroga</i>	web blight
Basidiomycota: Teliomycetes	
Uredinales	
Uropyxidaceae	
<i>Tranzschelia pruni-spinosae</i>	leaf rust
unknown Uredinales	
<i>Leucotelium pruni-persicae</i>	leucotelium white rust
Oomycota	
Pythiaceae	
Pythaceae	
<i>Phytophthora ramorum</i>	Sudden oak death disease
Zygomycota: Zygomycetes	
Mucorales	
Gilbertellaceae	
<i>Gilbertella persicaria</i>	fruit rot
Mucoraceae	
<i>Rhizopus circinans</i>	--
mitosporic fungi	
unknown mitosporic fungi	
unknown mitosporic fungi	
<i>Catenophora pruni</i>	--
<i>Fumago vagans</i>	--
mitosporic fungi (Coelomycetes)	
Sphaeropsidales	
Sphaerioidaceae	
<i>Coniothyrium amygdali</i>	--
<i>Coniothyrium prunicolum</i>	coniothyrium disease
<i>Cytospora persicae</i>	--
<i>Diplodia pruni</i>	--
<i>Diplodia vulgaris</i>	--
<i>Diplodina persicae</i>	--
<i>Nattrassia mangiferae</i>	stem-end rot
<i>Phoma persicae</i>	leaf spot
<i>Phomopsis cinerascens</i>	fig canker
<i>Phomopsis perseae</i>	fruit rot
<i>Phyllosticta congesta</i>	phyllosticta rot
<i>Phyllosticta laurocerasi</i>	leaf spot
<i>Phyllosticta persicae</i>	target leaf spot
<i>Phyllosticta serotina</i>	-
<i>Phyllosticta virginiana</i>	--
<i>Septoria pruni</i>	--

unknown Coelomycetes	
unknown Coelomycetes	
<i>Asteromella mali</i>	--
<i>Cylindrosporium nuttallii</i>	-
<i>Gloeosporium laeticolor</i>	anthracnose
<i>Melanconium cerasinum</i>	-
<i>Pestalotia laurocerasi</i>	leaf spot
<i>Rhodosticta quercina</i>	peach canker
mitosporic fungi (Hyphomycetes)	
Hyphomycetales	
Dematiaceae	
<i>Alternaria mali</i>	alternaria blotch
<i>Cercospora effusa</i>	-
<i>Cercospora rubrotincta</i>	leaf spot
<i>Clasterosporium degenerans</i>	--
<i>Mycocentrospora cladosporioides</i>	fruit spot
<i>Phialophora parasitica</i>	stem dieback
Moniliaceae	
<i>Monilia angustior</i>	rot
<i>Monilia implicata</i>	rot
unknown Hyphomycetes	
unknown Hyphomycetes	
<i>Aureobasidium prunicola</i>	fruit rot
<i>Candida inconspicua</i>	sour pit
unknown fungi	
unknown fungi	
unknown fungi	
<i>Morrisographium persicae</i>	--
Bacterium	
Bacillaceae	
<i>Bacillus mesentericus vulgatus</i>	-
Pseudomonadaceae	
<i>Pseudomonas amygdali</i>	-
<i>Pseudomonas syringae</i> pv. <i>cerasicola</i>	bacterial gall
Spiroplasmataceae	
<i>Spiroplasma citri</i>	citrus stubborn
Xanthomonadaceae	
<i>Xylella fastidiosa</i>	Pierce's disease
Virus	
<i>American plum line pattern virus</i>	-
<i>Apple stem grooving virus</i> [Prunus-infecting strain]	-
<i>Apricot deformation mosaic virus</i>	-
<i>Apricot latent virus</i>	-
<i>Carnation Italian ringspot virus</i>	-
<i>Cherry Hungarian rasp leaf virus</i>	-
<i>Cherry leaf roll virus</i> [strains not in New Zealand]	-
<i>Cherry line pattern and leaf curl virus</i>	-
<i>Little cherry virus 2</i>	<i>Little cherry virus 3</i>
<i>Cherry mottle leaf virus</i>	-
<i>Cherry rasp leaf virus</i> [strains not in New Zealand]	-
<i>Cherry rosette virus</i>	<i>Cherry rosette disease associated virus</i>
<i>Cherry rough fruit virus</i>	-
<i>Cherry rusty mottle associated virus</i>	<i>Cherry rusty mottle virus</i>
<i>Cherry twisted leaf associated virus</i>	<i>Cherry twisted leaf virus</i>
<i>Epirus cherry virus</i>	-

<i>Myrobalan latent ringspot virus</i>	-
<i>Peach enation virus</i>	-
<i>Peach mosaic virus</i>	-
<i>Peach rosette mosaic virus</i>	-
<i>Peach violet mosaic virus</i>	-
<i>Peach yellow leaf virus</i>	-
<i>Petunia asteroid mosaic virus</i>	-
<i>Plum bark necrosis stem pitting-associated virus</i>	-
<i>Plum pox virus</i>	-
<i>Prunus virus S</i>	-
<i>Raspberry ringspot virus</i>	-
<i>Sowbane mosaic virus</i>	-
<i>Stocky prune virus</i>	-
<i>Tomato bushy stunt virus</i>	-
<i>Tomato ringspot virus</i>	-

Viroid

<i>Hop stunt viroid</i>	-
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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	-
Prune diamond canker agent	-
Shirofugen stunt agent	-
Sour cherry (Montmorency) bark splitting agent	-
Sour cherry pink fruit agent	-
Sour cherry rusty splitting agent	-
Sour cherry vein yellow spot	-
Utah dixie rusty mottle	-

Inspection, Testing and Treatment Requirements for *Prunus*

ORGANISM TYPES	MPI-ACCEPTED METHODS (See notes below)
Insects	Visual inspection AND one of the approved insecticide treatments (Refer to “Approved Treatments for <i>Prunus</i> ”)
Mite	Visual inspection AND one of the approved miticide treatments (Refer to “Approved Treatments for <i>Prunus</i> ”)
Fungi	Growing season inspection in PEQ for disease symptom expression AND plating on potato dextrose agar.
Bacterium	
<i>Bacillus mesentericus vulgatus</i>	Growing season inspection in PEQ for disease symptom expression.
<i>Pseudomonas amygdali</i>	Growing season inspection in PEQ for disease symptom expression.
<i>Pseudomonas syringae</i> pv. <i>cerasicola</i>	Growing season inspection in PEQ for disease symptom expression AND plating on King’s B medium.
<i>Spiroplasma citri</i>	Growing season inspection in PEQ for disease symptom expression.
<i>Xylella fastidiosa</i>	Growing season inspection in PEQ for disease symptom expression AND PCR.
Virus	
<i>American plum line pattern virus</i>	ELISA or PCR AND herbaceous indicators <i>Chenopodium quinoa</i> , <i>Cucumis sativus</i> and <i>Nicotiana occidentalis</i> AND TEM.
<i>Apple stem grooving virus</i> [<i>Prunus</i> -infecting strain]	ELISA or PCR AND herbaceous indicator <i>Chenopodium quinoa</i> AND TEM.
<i>Apricot deformation mosaic virus</i>	Woody indicators AND TEM.
<i>Apricot latent virus</i>	TEM.
<i>Carnation Italian ringspot virus</i>	TEM.
<i>Cherry Hungarian rasp leaf virus</i>	TEM.
<i>Cherry leaf roll virus</i> [strains not in New Zealand]	Woody indicators AND ELISA or PCR AND herbaceous indicators <i>Chenopodium quinoa</i> , <i>Cucumis sativus</i> and <i>Nicotiana benthamiana</i> AND TEM.
<i>Cherry line pattern and leaf curl virus</i>	Woody indicators AND TEM.
<i>Cherry mottle leaf virus</i>	Woody indicators AND ELISA or PCR AND herbaceous indicator <i>Chenopodium quinoa</i> AND TEM.
<i>Cherry rasp leaf virus</i> [strains not in New Zealand]	Woody indicators AND herbaceous indicators <i>Chenopodium quinoa</i> , <i>Cucumis sativus</i> and <i>Nicotiana benthamiana</i> AND TEM.
<i>Cherry rosette disease associated virus</i>	Woody indicators AND TEM.
<i>Cherry rough fruit virus</i>	TEM.
<i>Cherry rusty mottle virus</i>	Woody indicators AND TEM.
<i>Cherry twisted leaf virus</i>	Woody indicators AND herbaceous indicator <i>Nicotiana occidentalis</i> AND TEM.
<i>Epirus cherry virus</i>	Woody indicators AND herbaceous indicators <i>Chenopodium quinoa</i> , <i>Cucumis sativus</i> and <i>Nicotiana benthamiana</i> AND TEM.
<i>Little cherry virus 2</i>	Woody indicators AND TEM.
<i>Myrobalan latent ringspot virus</i>	Woody indicators AND herbaceous indicators <i>Chenopodium quinoa</i> , <i>Cucumis sativus</i> and <i>Nicotiana benthamiana</i> AND TEM.
<i>Peach enation virus</i>	Woody indicators AND herbaceous indicator <i>Chenopodium quinoa</i> AND TEM.
<i>Peach mosaic virus</i>	Woody indicators AND herbaceous indicator <i>Chenopodium quinoa</i> AND TEM.
<i>Peach rosette mosaic virus</i>	Woody indicators AND ELISA or PCR AND herbaceous indicators <i>Chenopodium quinoa</i> , <i>Cucumis sativus</i> and <i>Nicotiana benthamiana</i> AND TEM.
<i>Peach violet mosaic virus</i>	TEM.
<i>Peach yellow leaf virus</i>	TEM.
<i>Petunia asteroid mosaic virus</i>	Woody indicators AND TEM.
<i>Plum bark necrosis stem pitting-associated virus</i>	Woody indicators AND TEM.

<i>Plum pox virus</i>	Woody indicators AND ELISA or PCR (two sets) AND herbaceous indicator <i>Nicotiana benthamiana</i> AND TEM.
<i>Prunus virus S</i>	TEM.
<i>Raspberry ringspot virus</i>	Woody indicators AND herbaceous indicators <i>Chenopodium quinoa</i> , <i>Cucumis sativus</i> and <i>Nicotiana benthamiana</i> AND TEM.
<i>Sowbane mosaic virus</i>	Herbaceous indicator <i>Chenopodium quinoa</i> AND TEM.
<i>Stocky prune virus</i>	TEM.
<i>Tomato bushy stunt virus</i>	ELISA or PCR AND herbaceous indicators <i>Chenopodium quinoa</i> , <i>Cucumis sativus</i> and <i>Nicotiana benthamiana</i> AND TEM.
<i>Tomato ringspot virus</i>	Woody indicators AND ELISA or PCR AND herbaceous indicators <i>Chenopodium quinoa</i> , <i>Cucumis sativus</i> and <i>Nicotiana benthamiana</i> AND TEM.
Viroid	
<i>Hop stunt viroid</i>	Hybridization or PAGE or PCR.
Phytoplasmas	Nested PCR or real time PCR using universal phytoplasma primers.
Diseases of unknown aetiology	Woody indicators AND growing season inspection in PEQ for disease symptom expression.

Notes:

1. The unit for testing is defined in section 2.3.2.1.
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:

Woody indicator	<i>Prunus armeniaca</i>	<i>Prunus avium</i> & <i>Prunus cerasus</i>	<i>Prunus domestica</i> & <i>Prunus salicina</i>	<i>Prunus dulcis</i>	All other <i>Prunus</i> spp.
<i>Prunus armeniaca</i> cv. Tilton	x3				x3
<i>Prunus avium</i> cv. Bing		x3			
<i>Prunus avium</i> cv. Sam		x3			x3
<i>Prunus domestica</i> cv. Shiroplum		x3	x3		x3
<i>Prunus persica</i> cv. Elberta or GF305	x4	x4	x4	x4	x4
Total indicators	10	13	7	4	13

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, MPI will accept other internationally recognised testing methods.

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:

Approved Countries: All

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

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

A. For Whole Plants:

PEQ: Level 3

Minimum Period: 6 months

- a. Conditions for *Phytophthora ramorum* (section 2.2.1.11)
- b. Conditions for *Xylella fastidiosa* (section 2.2.1.12)

B. For Tissue Cultures:

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

Pyrus

Scientific name

Commodity Sub-class

Date Issued

Pyrus communis

Cuttings (dormant)

12 June 1998

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:

Approved 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*; *Ceratocystis fimbriata* *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

- a. Conditions for *Ceratocystis fimbriata* (section 2.2.1.8)
Note: Only applies to members of the *Quercus* genus
- b. Conditions for *Phytophthora ramorum* (section 2.2.1.11)

B. For Tissue Cultures:

As for **Standard Entry Conditions for Tissue Cultures** - see Section 2.2.2, but subject to examination at a MPI-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 *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:

Approved 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 (i) 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:

Approved 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:

PEQ: Level 2

Minimum Period: 3 months

Additional Declaration:

1. Conditions for *Phytophthora ramorum* (section 2.2.1.11)

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 MPI-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.

Ribes

Scientific name	Commodity Sub-class	Date Issued
<i>Ribes nigrum</i>	Whole Plants	19 June 1998
<i>Ribes uva-crispa</i>	Whole Plants	19 June 1998

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:

Approved 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

1. Additional declaration: "The plants have been dipped in propiconazole at the rate of 5g a.i. per 10 litres of water".
2. Conditions for *Xylella fastidiosa* (section 2.2.1.12)

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.

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 *Rubus*”, and are additional to those specified in sections 1, 2 and 3 of the import health standard.

1. Type of *Rubus* nursery stock approved for entry into New Zealand

Cuttings (runner tips and stem cuttings only); Plants in tissue culture

Rubus can be imported into Level 2 post entry quarantine from MPI-accredited facilities, or into Level 3 post entry quarantine from non-accredited facilities.

2. Pests of *Rubus*

Refer to the pest list.

3. Entry conditions for:

3.1 *Rubus* cuttings and tissue culture from offshore MPI-accredited facilities in any country

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

(i) Documentation

Phytosanitary certificate: a completed phytosanitary certificate issued by the NPPO of the exporting country must accompany all *Rubus* 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 MPI have been undertaken.

The *Rubus* 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 MPI and the [name of the MPI-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 *Rubus* 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 MPI and the [name of the MPI-accredited facility].

AND

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

(v) Post-entry quarantine

PEQ: All *Rubus* nursery stock must be imported under permit into post-entry quarantine in a level 2 quarantine facility accredited to 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 in the post entry quarantine facility, all cuttings must be dipped in 1% sodium hypochlorite for 2 minutes. The nursery stock will be grown for a minimum period of 6 months (active continuous growth) 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 *Rubus* 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 *Rubus* 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 MPI have been undertaken.

The *Rubus* 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 [cuttings only]. No additional declarations are required.

(iv) Post-entry quarantine

PEQ: All *Rubus* nursery stock must be imported under permit into post-entry quarantine in a level 3 quarantine facility accredited to 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 in the post entry quarantine facility, all cuttings must be dipped in 1% sodium hypochlorite for 2 minutes. The nursery stock will be grown for a minimum period of 16 months (cuttings) in post-entry quarantine. Tissue cultures must be exflasked, and the exflasked plant material grown in a PEQ greenhouse during the quarantine period. During this time, imported material will be inspected, treated and/or tested for regulated pests as specified in the “Inspection, Testing and Treatment Requirements for *Rubus*”, 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 *Rubus*

REGULATED PESTS (actionable)

Insects

Insecta

Coleoptera

Attelabidae

Rhynchites germanicus

strawberry rhynchites

Buprestidae

Agrilus aurichalceus

raspberry buprestid

Agrilus rubicola

raspberry buprestid

Agrilus ruficollis

red-necked cane borer

Byturidae

Byturus ochraceus

raspberry beetle

Byturus rubi

eastern raspberry fruitworm

Byturus tomentosus

raspberry beetle

Byturus unicolor

raspberry fruitworm

Byturus urbanus

raspberry beetle

Cerambycidae

Coreus marginatus

longhorn beetle

Oberea bimaculata

raspberry caneborer

Chrysomelidae

Batophila aerata

raspberry flea beetle

Batophila rubi

raspberry flea beetle

Brachypnoea exilis grita

flea beetle

Nodonota margaretae

leaf beetle

Curculionidae

Anthonomus rubi

apple blossom weevil

Anthonomus signatus

blossom weevil

Merhynchites bicolor

rose curculio

Merhynchites wickhami

curculio

Nemocestes incomptus

strawberry root weevil

Otiorhynchus clavipes

red-legged weevil

Otiorhynchus singularis

clay covered weevil

Rhynchaenus fagi

strawberry weevil

Scleropterus verecundus

weevil

Nitidulidae

Meligethes hebes

sap beetle

Scarabaeidae

Cetonia aurata pisana

scarabaeid beetle

Cotinis nitida

green June beetle

Macroductylus subspinosus

rose chafer

Phyllopertha horticola

garden chafer

Popillia japonica

Japanese beetle

Diptera

Agromyzidae

Agromyza spiraeae

rose leafminer

Anthomyiidae

Pegomya rubivora

raspberry cane maggot

Cecidomyiidae

Contarinia agrimoniae

midge

Contarinia rubicola

blackberry flower midge

Dasineura plicatrix

blackberry leaf midge

Lasioptera rubi

raspberry gall midge

Resseliella theobaldi

raspberry midge

Hemiptera

Anthocoridae

Orius vicinus

raspberry bug

Miridae

Lygocoris pabulinus

common green caspid

<i>Lygus lineolaris</i>	tarnished plant bug
<i>Macrolophus rubi</i>	mirid
<i>Psallus variabilis</i>	mirid
Pentatomidae	
<i>Dolycoris baccarum</i>	stink bug
<i>Pentatoma rufipes</i>	forest bug
Homoptera	
Aetalionidae	
<i>Aetalion reticulatum</i>	-
Aphididae	
<i>Amphorophora agathonica</i>	strawberry aphid
<i>Amphorophora idaei</i>	large raspberry aphid
<i>Amphorophora rubitoxica</i>	aphid
<i>Aphis rubicola</i> [vect.]	raspberry aphid
<i>Aphis ruborum</i>	permanent blackberry aphid
<i>Macrosiphum funestum</i>	rose aphid
<i>Matsumuraja hirakurensis</i>	raspberry aphid
Cicadellidae	
<i>Dikrella californica</i>	blueberry leafhopper
<i>Dikrella cruentata</i>	leafhopper
<i>Edwardsiana rosae</i>	rose leafhopper
<i>Erythroneura rubiphylla</i>	leafhopper
<i>Macropsis fulcatus</i>	leafhopper
<i>Macropsis fuscata</i>	boysenberry leafhopper
<i>Metascarta impressifrons</i>	leafhopper
<i>Typhlocyba</i> spp.	rubus leafhoppers
Issidae	
<i>Mycterodus serbicus</i>	plant bug
Psyllidae	
<i>Trioza tripunctata</i>	blackberry psyllid
<i>Trioza trisignata</i>	psyllid
Hymenoptera	
Cephalidae	
<i>Hartigia albomaculata</i>	sawfly borer
Cynipidae	
<i>Diastrophus</i> spp.	stem gall cynipids
Pamphiliidae	
<i>Pamphilius sitkensis</i>	sawfly
Pergidae	
<i>Philomastix macleaii</i>	bramble sawfly
Tenthredinidae	
<i>Allantus cinctus</i>	banded rose sawfly
<i>Emphytus calceatus</i>	sawfly
<i>Empria tridens</i>	raspberry sawfly
<i>Metallus pumilus</i>	raspberry leaf-mining sawfly
<i>Metallus rohweri</i>	raspberry leafmining sawflies
<i>Metallus rubi</i>	blackberry leafminer
<i>Monophadnoides geniculatus</i>	raspberry sawfly
<i>Perineura rubi</i>	sawfly
<i>Sterictiphora furcata</i>	sawfly
Lepidoptera	
Geometridae	
<i>Itame wauaria</i>	v-moth
<i>Operophtera bruceata</i>	Bruce spanworm
<i>Operophtera brumata</i>	European winter moth
Hepialidae	
<i>Hepialus humuli</i>	ghost swift moth
Incurvariidae	
<i>Lampronia rubiella</i>	raspberry bud moth
Lymantriidae	
<i>Euproctis chrysorrhoea</i>	brown-tail moth
<i>Lymantria dispar</i>	Asian gypsy moth

<i>Orgyia antiqua</i>	rusty tussock moth
Megalopygidae	
<i>Megalopyge lanata</i>	-
Nepticulidae	
<i>Stigmella aurella</i>	-
<i>Stigmella splendidissima</i>	-
Noctuidae	
<i>Acronicta psi</i>	grey dagger moth
<i>Agrotis segetum</i>	turnip moth
<i>Cosmia trapezina</i>	dun-bar moth
<i>Eudocima tyrannus</i>	Akebia leaf-like moth
<i>Graphiphora augur</i>	double dart moth
<i>Melanchra persicariae</i>	dot moth
<i>Oraesia emarginata</i>	fruit-piercing moth
<i>Papaipema nebris</i>	stalk borer
<i>Peridroma saucia</i>	variegated cutworm
<i>Spirama retorta</i>	fruit sucking moth
<i>Xestia c-nigrum</i>	spotted cutworm
Notodontidae	
<i>Phalera bucephala</i>	buff-tip moth
Saturniidae	
<i>Saturnia pavonia</i>	silk moth
Sesiidae	
<i>Pennisetia hylaeiformis</i>	raspberry crownborer
<i>Pennisetia marginata</i>	raspberry crownborer
<i>Synanthedon bibionipennis</i>	strawberry crown moth
Tortricidae	
<i>Acleris comariana</i>	leafroller
<i>Acleris laterana</i>	broad barred button moth
<i>Archips oporanus</i>	fruit tree tortix
<i>Argyrotaenia citrana</i>	orange tortix
<i>Choristoneura rosaceana</i>	obliquebanded leafroller
<i>Cnephasia longana</i>	omnivorous leaf-tier
<i>Epiblema uddmanniana</i>	bramble shoot borer
<i>Olethreutes concinnana</i>	leafroller
<i>Olethreutes furfuranum</i>	leafroller
<i>Pandemis cerasana</i>	leafroller
<i>Spilonota ocellana</i>	eye-spotted bud moth
Orthoptera	
Gryllidae	
<i>Oecanthus nigricornis</i>	blackhorned tree cricket
<i>Oecanthus pellucens</i>	blackhorned tree cricket
Phasmida	
Phasmatidae	
<i>Carausius morosus</i>	wingless stick insect
Thysanoptera	
Thripidae	
<i>Thrips flavus</i>	flower thrips
Mites	
Arachnida	
Acarina	
Eriophyidae	
<i>Cenopalpus pseudospinosus</i>	rust mite
<i>Epitrimerus gibbosus</i>	erriophyid mite
<i>Eriophyes rubi</i>	erriophyid mite
<i>Phyllocoptes gibbosus</i>	erriophyid mite
<i>Phyllocoptes gracilis</i>	raspberry mite
<i>Phyllocoptes rubi</i>	erriophyid mite
Eupodidae	
<i>Neotetranychus rubi</i>	raspberry mite
Tetranychidae	

<i>Amphitetranychus viennensis</i>	hawthorn spider mite
Nematodes	
Adenophorea	
Dorylaimida	
Longidoridae	
<i>Xiphinema bakeri</i>	dagger nematode
<i>Xiphinema bareense</i>	dagger nematode
Secernentea	
Tylenchida	
Criconematidae	
<i>Criconemella axestis</i>	-
<i>Criconemella curvata</i>	ring nematode
<i>Criconemella denoudenii</i>	-
<i>Criconemella ornata</i>	ring nematode
<i>Criconemella sphaerocephala</i>	ring nematode
<i>Criconemella xenoplax</i>	ring nematode
Dolichodoridae	
<i>Tylenchorhynchus claytoni</i>	tobacco stunt nematode
Hoplolaimidae	
<i>Helicotylenchus platyurus</i>	-
<i>Hoplolaimus magnistylus</i>	-
<i>Scutellonema bradys</i>	yam nematode
Pratylenchidae	
<i>Hirschmanniella oryzae</i>	rice root nematode
Fungi	
Ascomycota: Ascomycetes	
Diaporthales	
Valsaceae	
<i>Gnomonia rostellata</i>	-
<i>Gnomonia rubi</i> (anamorph <i>Gloeosporium</i> sp.)	cane canker, dieback
<i>Gnomonia setacea</i>	cane canker, dieback
Dothideales	
Leptosphaeriaceae	
<i>Leptosphaeria thomasiiana</i>	cane blight
Melanconidaceae	
<i>Sydowiella depressula</i>	-
Mycosphaerellaceae	
<i>Mycosphaerella confusa</i> (anamorph <i>Pseudocercospora rubi</i>)	cercospora leaf spot
<i>Mycosphaerella ligea</i>	cane & leaf spot
<i>Mycosphaerella rubi</i> (anamorph <i>Septoria rubi</i>)	cane & leaf spot
<i>Sphaerulina rubi</i> (anamorph <i>Cylindrosporium rubi</i>)	-
Helotiales	
Dermateaceae	
<i>Pyrenopeziza rubi</i>	cane spot
Sclerotiniaceae	
<i>Monilinia fructigena</i> (anamorph <i>Monilia fructigena</i>)	brown rot
Meliolales	
Meliolaceae	
<i>Appendiculella calstroma</i>	black mildew
Unknown Ascomycetes	
-	
<i>Hormotheca rubicola</i>	-
Basidiomycota: Basidiomycetes	
Agaricales	
Tricholomataceae	
<i>Armillaria gallica</i>	armillaria root rot
<i>Armillaria mellea</i> (anamorph <i>Rhizomorpha subcorticalis</i>)	shoestring root rot
<i>Armillaria ostoyae</i>	armillaria root rot
Russulales	
Lachnocladiaceae	

<i>Scytinostroma galactinum</i>	Scytinostroma galactinum
Unknown Basidiomycetes	
<i>Gerwasia epiphylla</i>	-
Basidiomycota: Urediniomycetes	
Stereales	
Sistotremataceae	
<i>Phymatotrichopsis omnivora</i>	Texas root rot
Uredinales	
Phragmidiaceae	
<i>Arthuriomyces peckianus</i>	orange rust
<i>Gymnoconia nitens</i>	rust
<i>Hamaspora longissima</i>	sub-tropical rust
<i>Phragmidium alaskanum</i>	-
<i>Phragmidium bulbosum</i>	rust
<i>Phragmidium occidentale</i>	-
Pucciniastraceae	
<i>Pucciniastrum americanum</i>	late leaf rust
<i>Pucciniastrum arcticum</i>	-
Mitosporic Fungi (Coelomycetes)	
<i>Hapalosphaeria deformans</i>	anther blight
<i>Macrophoma rubi</i>	-
<i>Marssonina potentillae</i>	leaf scorch
<i>Phyllosticta carpogena</i>	-
Mitosporic Fungi (Hyphomycetes)	
<i>Fusicladium grayianum</i>	-
<i>Passalora monrosii</i>	-
<i>Pseudocercospora heteromalla</i>	-
<i>Pseudocercospora rubicola</i>	-
<i>Verticillium albo-atrum [severe strain]</i>	verticillium wilt
Zygomycota: Zygomycetes	
Mucorales	
Mucoraceae	
<i>Rhizopus sexualis</i>	soft rot
Chromista	
Oomycota	
Pythiaceae	
<i>Phytophthora idaei</i>	-
<i>Phytophthora ramorum</i>	sudden oak death
<i>Phytophthora rubi</i>	root rot
Bacteria	
-	
-	
Enterobacteriaceae	
<i>Erwinia amylovora f.sp. rubi</i>	
Rhizobiaceae	
<i>Agrobacterium rubi</i>	cane gall
Xanthomonadaceae	
<i>Xylella fastidiosa</i>	Pierce's disease
Viruses	
-	
-	
-	
<i>Black raspberry necrosis virus [strains not in New Zealand]</i>	-
<i>Blackberry calico virus</i>	-
<i>Blackberry chlorotic ringspot virus</i>	-
<i>Blackberry virus Y</i>	-
<i>Blackberry yellow vein associated virus</i>	-
<i>Bramble yellow mosaic virus</i>	-

<i>Cherry rasp leaf virus</i>	-
<i>Hawaiian rubus leaf curl virus</i>	-
<i>Raspberry latent virus</i>	-
<i>Raspberry leaf curl virus</i>	-
<i>Raspberry ringspot virus</i>	-
<i>Rubus Chinese seedborne virus</i>	-
<i>Rubus chlorotic mottle virus</i>	-
<i>Rubus yellow net virus</i>	-
<i>Thimbleberry ringspot virus</i>	-
<i>Tobacco necrosis virus</i> [strains not in New Zealand]	-
<i>Tomato ringspot virus</i>	-
<i>Wineberry latent virus</i>	-

Phytoplasmas

-		
-		
-		
-	Black raspberry witches'-broom phytoplasma	-
-	Rubus stunt phytoplasma	-

Disease of unknown etiology

-		
-		
-		
-	Alpine mosaic agent	-
-	Black raspberry streak disease	-
-	Raspberry chlorotic net disease	-
-	Raspberry yellow spot disease	-

*For organisms intercepted that are not listed within this pest list refer to the [Biosecurity Organisms Register for Imported Commodities](#) to determine the regulatory status.

Inspection, Testing and Treatment Requirements for *Rubus*

ORGANISM TYPES	MPI-ACCEPTABLE METHODS
Insects	Visual inspection AND approved insecticide treatments as described in section 2.2.1.6 of the Basic conditions [cuttings only]
Mites	Visual inspection AND approved miticide treatments as described in the section 2.2.1.6 of the Basic conditions [cuttings only] or binocular microscope inspection in PEQ [plants in tissue culture only]
Fungi	Growing season inspection in PEQ for symptom expression
Chromista	Growing season inspection in PEQ for symptom expression
Bacteria	
<i>Erwinia amylovora</i> f.sp. <i>rubi</i>	Growing season inspection for symptom expression AND PCR
<i>Agrobacterium rubi</i>	Growing season inspection for symptom expression
<i>Xylella fastidiosa</i>	Growing season inspection for symptom expression AND PCR
Viruses	
<i>Black raspberry necrosis virus</i> [strains not in New Zealand]	Country freedom OR Graft indexing using <i>Rubus occidentalis</i> AND PCR
<i>Blackberry calico virus</i>	Country freedom OR Herbaceous indexing (<i>Chenopodium quinoa</i>)
<i>Blackberry chlorotic ringspot virus</i>	Country freedom OR Herbaceous indexing (<i>Chenopodium quinoa</i>) AND PCR
<i>Blackberry virus Y</i>	Country freedom OR RT-PCR using BVY-specific primers
<i>Blackberry yellow vein associated virus</i>	Country freedom OR PCR
<i>Bramble yellow mosaic virus</i>	Country freedom OR Herbaceous indexing (<i>Chenopodium quinoa</i>)
<i>Cherry rasp leaf virus</i>	Country freedom OR Herbaceous indexing (<i>Chenopodium quinoa</i> , <i>Cucumis sativus</i> , and <i>Nicotiana clevelandii</i>) AND ELISA or PCR
<i>Hawaiian rubus leaf curl virus</i>	Country freedom OR Growing season inspection for symptom expression
<i>Raspberry latent virus</i>	Country freedom OR PCR
<i>Raspberry leaf curl virus</i>	Country freedom OR Graft indexing using <i>Rubus occidentalis</i>
<i>Raspberry ringspot virus</i>	Country freedom OR Herbaceous indexing (<i>Chenopodium quinoa</i> , <i>Cucumis sativus</i> , and <i>Nicotiana clevelandii</i>) AND ELISA or PCR
<i>Rubus Chinese seedborne virus</i>	Country freedom OR Herbaceous indexing (<i>Chenopodium quinoa</i> , <i>Cucumis sativus</i> , and <i>Nicotiana clevelandii</i>)
<i>Rubus chlorotic mottle virus</i>	Country freedom OR Herbaceous indexing (<i>Chenopodium quinoa</i>)
<i>Rubus yellow net virus</i>	Country freedom OR Graft indexing using <i>Rubus occidentalis</i> AND PCR
<i>Thimbleberry ringspot virus</i>	Country freedom OR Graft indexing using <i>Rubus occidentalis</i>
<i>Tobacco necrosis virus</i> [strains not in New Zealand]	Country freedom OR Herbaceous indexing (<i>Chenopodium quinoa</i> , <i>Cucumis sativus</i> and <i>Nicotiana clevelandii</i>)
<i>Tomato ringspot virus</i>	Country freedom OR Herbaceous indexing (<i>Chenopodium quinoa</i> , <i>Cucumis sativus</i> , and <i>Nicotiana clevelandii</i>) AND ELISA or PCR

<i>Wineberry latent virus</i>	Country freedom OR Herbaceous indexing (<i>Chenopodium quinoa</i>)
Phytoplasmas	
Black raspberry witches'-broom phytoplasma	Country freedom OR Nested PCR or real time PCR using universal phytoplasma primers
Rubus stunt phytoplasma	Country freedom OR Nested PCR or real time PCR using universal phytoplasma primers
Diseases of unknown etiology	
Alpine mosaic agent	Country freedom OR Growing season inspection for symptom expression
Black raspberry streak disease	Country freedom OR Growing season inspection for symptom expression
Raspberry chlorotic net disease	Country freedom OR Growing season inspection for symptom expression
Raspberry yellow spot disease	Country freedom OR Graft indexing using <i>Rubus occidentalis</i>

Notes:

- Country freedom** for regulated viruses, diseases of unknown etiology, and phytoplasmas will only be accepted when material is sourced from a MPI-accredited offshore facility. Country freedom must be endorsed by the exporting NPPO, and must be included in the agreement between MPI and the accredited offshore facility.
- The **unit for testing** is defined in section 2.3.2.1.
- Tissue culture plantlets** must be potted up and grown in a MPI approved greenhouse, only material from the greenhouse is to be selected for testing.
- Growing season** is defined as an extended period of plant growth that includes environmental conditions equivalent to spring (longer wetter days and colder temperatures), summer (longer dryer days and warm temperatures), and autumn (shorter wetter days and warm but cooling temperatures).
- Virus testing** is to be conducted on new spring growth.
- Phytoplasma and bacteria testing** is to be conducted at the end of the summer growth period.
- Graft indexing:** Each *Rubus* plant must be tested by leaf-grafting or bottle-grafting onto two replicate indicator plants. The indicator plants must be maintained in a vigorous state of growth before and after grafting. Grafted plants are to be inspected regularly for symptoms of disease for at least 3 months.
A single indicator plant must be left ungrafted as a negative control. It is recommended that a single indicator plant is budded with a positive control; the positive control is to be a non-regulated virus of *Rubus*.
- Herbaceous indicator plants:** *Chenopodium quinoa*, *Cucumis sativus*, and *Nicotiana clevelandii*. Two plants of each herbaceous indicator species must be used in each test. Herbaceous indicator plants must be grown at 18-25°C before and after inoculation and must be shaded for 24 hrs prior to inoculation. Post-inoculated indicator species must be held under appropriate glasshouse conditions for at least 4 weeks. Inoculated indicator plants must be inspected at least twice per week for symptoms of virus infection.
A single plant of each indicator species must be inoculated with buffer solution as a negative control. It is recommended that a single plant of each indicator species is inoculated with a positive control; the positive control is to be a non-regulated virus of *Rubus*.
- Enzyme linked immunosorbent assay (ELISA) tests.** All ELISA tests must be validated using positive and negative controls prior to use in quarantine testing.

- Positive and negative controls must be used in all tests.
10. **Polymerase chain reaction (PCR) tests.** All PCR tests must be validated using positive and negative controls prior to use in quarantine testing. Positive and no template controls must be used in all tests. Ideally positive internal control primers and a negative plant control should also be used in PCR tests.
 11. **Inspection** of the *Rubus* plants by the Operator of the PEQ facility for signs of pest and disease must be at least twice per week during periods of active growth. A record of inspections carried out by the Operator is to be kept and made available to the MPI Inspector on request.
 12. **Other internationally recognised testing methods** may be accepted by MPI with prior notification.

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:

Approved 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

- a. Conditions for *Phytophthora ramorum* (section 2.2.1.11)
- b. Conditions for *Xylella fastidiosa* (section 2.2.1.12)

B. For Tissue Cultures:

As for **Standard Entry Conditions for Tissue Cultures** - see Section 2.2.2, but subject to examination at a MPI-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 *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 for Primary Industries (MPI) 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 for Primary Industries (MPI) 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.

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*”, and are additional to those specified in sections 1, 2 and 3 of the import health standard.

GENERAL CONDITIONS:

Approved Countries: All

Quarantine Pests: *Potato spindle tuber viroid*

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

A. For Whole Plants and Cuttings:

PEQ: Level 2

Minimum Period: 3 months

Additional declaration:

"The nursery stock in this consignment has been sourced from a “Pest free area” or “Pest free place of production” [choose one], free from *Potato spindle tuber viroid*".

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 sourced from a “Pest free area” or “Pest free place of production” [choose one], free from *Potato spindle tuber viroid*".

OR

“The cultures have been derived from parent stock tested by molecular methods (PCR) and found free from *Potato spindle tuber viroid*".

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 offshore MPI-accredited facilities in any country

(i) Documentation

Import permit is required

Declaration for genetically modified organisms is required: Refer to section 5 of this schedule for details.

Phytosanitary requirements: 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 medium requirements

The tissue culture medium must not contain charcoal.

(iii) Phytosanitary requirements

Before a phytosanitary certificate is issued, the exporting country national plant protection organisation (NPPO) must be satisfied that the following activities required by the New Zealand Ministry for Primary Industries (MPI) have been undertaken:

The *Solanum tuberosum* tissue cultures in the consignment have been:

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

AND

- held and tested for/classified free from specified regulated pests as required in the agreement between MPI and the MPI-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.

(iv) Additional declarations to the phytosanitary certificate

“The *Solanum tuberosum* tissue cultures in this consignment have been:

- held and tested for/classified free from specified regulated pests as required in the agreement between MPI and the [name of MPI-accredited facility];

AND

- have been held in a manner to ensure infestation/reinfestation does not occur following inspection and testing at the accredited facility, and certification.”

(v) Inspection, testing and treatments of the consignment

For all imported *Solanum tuberosum* tissue cultures, MPI reserves the right to validate all testing and audit all treatment processes that are undertaken by a facility accredited by MPI for testing/treatment purposes. This applies to MPI-accredited facilities offshore and within New Zealand. Audits will be conducted on a regular basis and at the expense of the importer.

(vi) Post-entry quarantine

PEQ: Not required

3.2 *Solanum tuberosum* plants in tissue culture from non-accredited facilities in 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 medium requirements

The tissue culture medium 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 Level 3 post entry quarantine facility. Refer to *Solanum tuberosum* Inspection and Testing Requirements following the *Solanum tuberosum* pest list.

(vi) Post-entry quarantine

PEQ: Level 3

Quarantine Period: Tissue cultures must be deflasked into the greenhouse for the quarantine period. 3 months is an indicative minimum quarantine period; this is the time required to complete inspections and/or indexing to detect regulated pests. 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 MPI-accredited laboratories or facilities

For all imported *Solanum tuberosum* plants in tissue culture, MPI reserves the right to validate all testing and audit all treatment processes that are undertaken by a facility accredited by MPI for testing/treatment purposes. This applies to MPI-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

Mitosporic Fungi

Unknown Mitosporic Fungi

Unknown Mitosporic Fungi

Aecidium cantensis

deforming rust

Oomycota

Pythiales

Pythiaceae

Phytophthora infestans [A2 mating strain]

late blight

Bacteria

Corynebacteriaceae

Clavibacter michiganensis subsp. *sepedonicus*

potato ring rot

Enterobacteriaceae

Dickeya chrysanthemi pv. *chrysanthemi*

(syn. *Erwinia chrysanthemi* pv. *chrysanthemi*)

bacterial soft rot

Dickeya chrysanthemi pv. *parthenii*

(syn. *Erwinia chrysanthemi* pv. *parthenii*)

-

Dickeya paradisiaca

(syn. *Erwinia chrysanthemi* pv. *paradisiaca*)

-

'*Dickeya solani*'

-

Pectobacterium betavasculorum

(syn. *Erwinia carotovora* subsp. *betavasculorum*)

bacterial sudden yellows death

Viroids

*Columnnea latent viroid**

-

*Pepper chat fruit 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**

-

*Cherry leaf roll virus**

-

*Eggplant mosaic tymovirus**

-

Eggplant mottled dwarf nucleorhabdovirus

-

*Henbane mosaic potyvirus**

-

<i>Melilotus mosaic potyvirus*</i>	-
<i>Papaya mosaic virus</i>	-
<i>Pelargonium line pattern carmovirus*</i>	-
<i>Pepino mosaic potexvirus</i>	-
<i>Pepper vein mottle potyvirus*</i>	-
<i>Potato I4R tobamovirus</i>	-
<i>Potato Andean latent tymovirus</i>	-
<i>Potato Andean mottle comovirus</i>	-
<i>Potato black ringspot nepovirus</i>	-
<i>Potato deforming mosaic begomovirus</i>	-
<i>Potato latent carlavirus</i>	-
<i>Potato mop-top furovirus</i>	-
<i>Potato P carlavirus</i>	-
<i>Potato rough dwarf carlavirus</i>	-
<i>Potato T trichovirus</i>	-
<i>Potato U nepovirus</i>	-
<i>Potato V potyvirus</i>	-
<i>Potato Y potyvirus</i> [strains not in New Zealand]	-
<i>Potato yellow dwarf nucleorhabdovirus</i>	-
<i>Potato yellow mosaic begomovirus</i>	-
<i>Potato yellow vein crinivirus</i>	-
<i>Potato yellowing alfamovirus</i>	-
<i>Solanum apical leaf curling begomovirus</i>	-
<i>Solanum yellows luteovirus</i>	-
<i>Southern potato latent carlavirus</i>	-
<i>Sowbane mosaic sobemovirus</i>	-
<i>Tobacco etch potyvirus*</i>	-
<i>Tobacco necrosis necrovirus</i> [strains not in New Zealand]	-
<i>Tobacco necrotic dwarf luteovirus*</i>	-
<i>Tobacco rattle tobnavirus</i> [strains not in New Zealand]	-
<i>Tobacco streak ilarvirus</i> [strains not in New Zealand]	-
<i>Tobacco stunt varicosavirus*</i>	-
<i>Tomato bushy stunt tombusvirus*</i>	-
<i>Tomato infectious chlorosis crinivirus</i>	-
<i>Tomato leaf curl begomovirus - Australia*</i>	-
<i>Tomato leaf curl begomovirus - New Delhi</i>	-
<i>Tomato top necrosis nepovirus*</i>	-
<i>Tomato yellow leaf curl begomovirus</i>	-
<i>Tomato yellow mosaic begomovirus</i>	-
<i>Tomato yellow vein streak begomovirus*</i>	-
<i>Wild potato mosaic potyvirus</i>	-

Phytoplasmas

Eggplant little leaf phytoplasma	-
Peanut witches' broom*	-
Potato marginal flavescence	-
Potato phyllody phytoplasma	-
Potato purple-top roll phytoplasma	-
Potato purple-top wilt phytoplasma	-
Potato round leaf phytoplasma	-
Potato stolbur phytoplasma	-
Potato witches' broom phytoplasma	-
Saq'O disease	-

Note: * Pathogens that infect *Solanum tuberosum* experimentally (i.e. not yet found to infect potato naturally under field conditions).

Inspection and Testing Requirements for MPI-accredited facilities, for *Solanum tuberosum*

ORGANISM TYPES	ACCEPTABLE METHODS (See Note 6 at the end of this table).	Comments
Mites	Binocular microscope inspection.	
Fungi		
<i>Aecidium cantensis</i>	Growing season inspection in PEQ for symptom expression	
<i>Phoma andigena</i> var. <i>andina</i>	Growing season inspection in PEQ for symptom expression	
<i>Phytophthora infestans</i> (A2 mating strain)	Growing season inspection in PEQ for symptom expression	
<i>Synchytrium endobioticum</i> [official control]	Growing season inspection in PEQ for symptom expression	<i>S. endobioticum</i> cannot be cultured. It is identified by microscopic examination of affected plants. This organism belongs to the Kingdom Protozoa.
Bacteria		
<i>Clavibacter michiganensis</i> subsp. <i>sepedonicus</i>	Growing season inspection in PEQ for symptom expression AND <ul style="list-style-type: none"> • Immunofluorescence or • ELISA AND grow plantlets on Murashige and Skoog medium (see note 18) or • PCR AND grow plantlets on Murashige and Skoog medium (see note 18) 	
<i>Dickeya chrysanthemi</i> pv. <i>chrysanthemi</i>	Growing season inspection in PEQ for symptom expression AND plating on selective pectate media or PCR	
<i>Dickeya chrysanthemi</i> pv. <i>parthenii</i>	Growing season inspection in PEQ for symptom expression AND plating on selective pectate media or PCR	
<i>Dickeya paradisiaca</i>	Growing season inspection in PEQ for symptom expression AND plating on selective pectate media or PCR	
' <i>Dickeya solani</i> '	Growing season inspection in PEQ for symptom expression AND plating on selective pectate media or PCR	
<i>Pectobacterium betavasculorum</i>	Growing season inspection in PEQ for symptom expression AND plating on selective pectate media e.g. crystal violet pectate medium or PCR	
Viroid		
Potato spindle tuber viroid [transient]	PCR using two sets of primers or Return PAGE (with silver staining) or Hybridisation (P32 or digoxigenin labelled RNA probes)	
Viruses		
Arracacha B nepovirus	ELISA or PCR AND herbaceous indicators Ca AND TEM	Sap transmitted with difficulty. ELISA must detect the oca strain
Beet curly top curtovirus	PCR AND TEM	
Eggplant mottled dwarf nucleorhabdovirus	Herbaceous indicators Nb, Nc, Nd AND TEM	

ORGANISM TYPES	ACCEPTABLE METHODS (See Note 6 at the end of this table).	Comments
Papaya mosaic virus	Herbaceous indicator Ca	
Pepino mosaic virus	Herbaceous indicators Nd, No, and Nt	
Potato 14R tobamovirus	Growing season inspection in PEQ for symptom expression	Not fully characterised.
Potato Andean latent tymovirus	ELISA or PCR AND herbaceous indicators Nb, No AND TEM	
Potato Andean mottle comovirus	ELISA or PCR AND herbaceous indicators Nc, Nd AND TEM	
Potato black ringspot nepovirus	ELISA or PCR AND herbaceous indicators Cq, No AND TEM	
Potato deforming mosaic begomovirus	PCR or ELISA AND TEM	
Potato latent carlavirus	PCR AND TEM	
Potato mop-top furovirus	ELISA or PCR AND herbaceous indicators Ca, Cq, Nd AND TEM	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.
Potato P carlavirus	PCR AND TEM	
Potato rough dwarf carlavirus	PCR AND TEM	
Potato T trichovirus	ELISA or PCR AND Herbaceous indicators Ca, Cq AND TEM	
Potato U nepovirus	Herbaceous indicators Ca, Cq AND TEM	
Potato V potyvirus	ELISA or PCR AND TEM	
Potato Y potyvirus [strains not in NZ]	ELISA or PCR AND herbaceous indicators Nb, No AND TEM	
Potato yellow dwarf nucleorhabdovirus	Herbaceous indicators Nc AND TEM	
Potato yellow mosaic begomovirus	Herbaceous indicators Nb, Nt AND TEM	
Potato yellow vein crinivirus	PCR or hybridisation AND TEM	
Potato yellowing alfamovirus	ELISA or PCR AND TEM	
Solanum apical leaf curling begomovirus	Growing season inspection in PEQ for symptom expression	
Solanum yellows luteovirus	Growing season inspection in PEQ for symptom expression	
Southern potato latent carlavirus	Growing season inspection in PEQ for symptom expression	
Sowbane mosaic sobemovirus	Herbaceous indicators Cq, Ca AND TEM	
Tobacco necrosis necrovirus [strains not in New Zealand]	Herbaceous indicators Ca, Cq, Nc AND TEM	Tobacco necrosis virus A Tobacco necrosis virus B
Tobacco rattle tobnavirus [strains not in New Zealand]	PCR AND herbaceous indicators Ca, Nc AND TEM	Serological detection is unreliable because of diversity in the particle proteins of different isolates.
Tobacco streak ilarvirus [strains not in New Zealand]	Herbaceous indicators Nt AND TEM	Potato strain SB10 infects potato naturally.
Tomato infectious chlorosis crinivirus	PCR AND TEM	
Tomato leaf curl begomovirus – New Delhi	Herbaceous indicators Nb AND TEM	Potato leaf curl is a new disease in northern India caused by a strain of Tomato leaf curl new Delhi virus.
Tomato yellow leaf curl begomovirus	PCR or ELISA AND TEM	

ORGANISM TYPES	ACCEPTABLE METHODS (See Note 6 at the end of this table).	Comments
Tomato yellow mosaic begomovirus	PCR or ELISA AND herbaceous indicators Nb, Nt AND TEM	
Wild potato mosaic potyvirus	Herbaceous indicators Nc, No AND TEM	
Phytoplasmas		
Eggplant little leaf phytoplasma	Nested or real-time PCR using universal phytoplasma primers	
Potato marginal flavescence	Nested or real-time PCR using universal phytoplasma primers	
Potato phyllody phytoplasma	Nested or real-time PCR using universal phytoplasma primers	
Potato purple-top roll phytoplasma	Nested or real-time PCR using universal phytoplasma primers	
Potato purple-top wilt phytoplasma	Nested or real-time PCR using universal phytoplasma primers	
Potato round leaf phytoplasma	Nested or real-time PCR using universal phytoplasma primers	
Potato stolbur phytoplasma	Nested or real-time PCR using universal phytoplasma primers	
Potato witches' broom phytoplasma	Nested or real-time PCR using universal phytoplasma primers	
Saq'O disease	Growing season inspection in PEQ for symptom expression	An unknown phytoplasma and a native strain of PLRV are associated with this disease. No appropriate detection methods are currently available for the disease-causing agent.

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.

ORGANISM TYPES	Comments
Columnea latent viroid*	No evidence that this viroid infects potato naturally.
Pepper chat fruit viroid	No evidence that this viroid infects potato naturally.
Tomato chlorotic dwarf viroid*	Tests that would detect this viroid are already being conducted elsewhere in this schedule e.g. the herbaceous indicator Nd.
Tomato planta macho viroid*	No evidence that this viroid infects potato naturally (Galindo <i>et al.</i> 1982).
Abutilon mosaic begomovirus*	Tests that would detect this virus are already being conducted elsewhere in this schedule e.g. the universal PCR or ELISA tests for begomoviruses.
Arracacha A nepovirus*	Tests that would detect this virus are already being conducted elsewhere in this schedule, e.g. the herbaceous indicators Cq and Nc.
Asparagus 3 potexvirus*	Tests that would detect this virus are already being conducted elsewhere in this schedule, e.g. the indicator Cq and Nc.

Cassava green mottle nepovirus*	Tests that would detect this virus are already being conducted elsewhere in this schedule, e.g. the herbaceous indicators Cq and Nc.
Cassia mild mosaic carlavirus*	Tests that would detect this virus are already being conducted elsewhere in this schedule, e.g. the universal PCR for carlaviruses.
Cherry leaf roll virus*	Tests that would detect this virus are already being conducted elsewhere in this schedule, e.g. the herbaceous indicators Nc and Nt.
Eggplant mosaic tymovirus*	Tests that would detect this virus are already being conducted elsewhere in this schedule, e.g. the indicators Cq and Nc.
Henbane mosaic potyvirus*	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.
Melilotus mosaic potyvirus*	Tests that would detect this virus are already being conducted elsewhere in this schedule, e.g. the indicator Ca
Pelargonium line pattern carmovirus*	Tests that would detect this virus are already being conducted elsewhere in this schedule, e.g. the indicators Cq and Ca.
Pepper veinal mottle potyvirus*	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.
Tobacco etch potyvirus*	Tests that would detect this virus are already being conducted elsewhere in this schedule, e.g. the indicators Cq and Ca.
Tobacco necrotic dwarf luteovirus*	No appropriate test available.
Tobacco stunt varicosavirus*	Tests that would detect this virus are already being conducted elsewhere in this schedule, e.g. the indicator Ca.
Tomato bushy stunt tombusvirus*	Tests that would detect this virus are already being conducted elsewhere in this schedule, e.g. the indicators Cq and Nc.
Tomato leaf curl begomovirus - Australia*	Tests that would detect this virus are already being conducted elsewhere in this schedule e.g. the universal PCR or ELISA for begomovirus.
Tomato top necrosis nepovirus*	Tests that would detect this virus are already being conducted elsewhere in this schedule, e.g. the indicator Cq.
Tomato yellow vein streak begomovirus*	Tests that would detect this virus are already being conducted elsewhere in this schedule, e.g. the universal PCR or ELISA for begomovirus.
Peanut witches' broom*	Tests that would detect this phytoplasma are already being conducted elsewhere in this schedule, e.g. the universal PCR for phytoplasma.

Notes:

1. Transmission electron microscopy (TEM) – each plant must be observed under the TEM for virus particles.
2. Indicator hosts: **two replicates each** of *Chenopodium quinoa* (Cq), *Nicotiana debneyii* (Nd), *N. occidentalis* P1 (No) and *N. tabacum* (cv White Burley) (Nt); **four replicates**

- each** of *C. amaranticolor* (Ca), *N. benthamiana* (Nb) and *N. clevelandii* (Nc).
3. Enzyme linked immunosorbent assay (ELISA).
 4. Polymerase chain reaction (PCR).
 5. Polyacrylamide gel electrophoresis (PAGE).
 6. With prior notification, MPI 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 defined in section 2.3.2.1. 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. Plantlets in growth medium must be de-flasked and grown in quarantine for virus disease testing.
 17. *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).
 18. After plantlets are deflasked they must be grown in sterile potting mix.
 19. Testing must be carried out on plants while they are still in active growth and before tubers form.
 20. 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.
 21. *Erwinia carotovora* ssp. *carotovora*, *E. carotovora* ssp. *atroseptica* and *E. chrysanthemi* have been re-classified in the genus *Pectobacterium* as *P. ssp. carotovorum*, *P. carotovorum* ssp. *atrosepticum* and *P. chrysanthemi* (Hauben *et al.*, 1998; cited in Perombelon 2002).
 22. Positive and negative controls must be used in ELISA.
 23. 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.



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.

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:

Approved 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

1. Additional declaration: "Aster yellows phytoplasma is not known to occur in ____ (the country or state where the plants were grown) ____".
2. Conditions for *Xylella fastidiosa* (section 2.2.1.12)

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 *Syringa*”, and are additional to those specified in sections 1, 2 and 3 of the import health standard.

GENERAL CONDITIONS:

Approved 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”.

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:

Approved 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 *Tricyrtis*”, and are additional to those specified in sections 1, 2 and 3 of the import health standard.

GENERAL CONDITIONS:

Approved 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

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:

Approved 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.

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 for Primary Industries (MPI) 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 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 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.

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 MPI 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 for Primary Industries (MPI) 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 for Primary Industries (MPI) 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* 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* 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

Xiphimena coxi

dagger nematode

Trichodoridae

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 perniciosum

smoulder

Sclerotium wakkerei

blackleg

Bacterium

Corynebacteriaceae

Curtobacterium flaccumfaciens pv. *oortii*

yellow pock

Virus

<i>Cymbidium ringspot virus</i>	-
<i>Tobacco rattle virus</i> [strains not in New Zealand]	-
<i>Tomato bushy stunt virus</i>	-
<i>Tomato ringspot virus</i>	-
<i>Tulip grey virus</i> (syn. <i>Tulip severe mosaic virus</i>)	-
<i>Tulip halo necrosis virus</i>	-
<i>Tulip mild mosaic virus</i>	-
<i>Tulip mild mottle mosaic virus</i>	-
<i>Wa tulip virus</i>	-

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:

Approved Countries: All

Quarantine Pests: *Ceratocystis fimbriata*, Elm mosaic virus, Elm phloem necrosis; *Xylella fastidiosa*; *Phytophthora ramorum*

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

A. Whole Plants

PEQ: Level 3

Minimum Period: 3 months

- a. Conditions for *Ceratocystis fimbriata* (section 2.2.1.8)

Note: Only applies to members of the *Ulmus* genus

- b. Conditions for *Phytophthora ramorum* (section 2.2.1.11)

- c. Conditions for *Xylella fastidiosa* (section 2.2.1.12)

B. 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 *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 MPI-accredited facilities in any country

An offshore accredited facility is a facility that has been accredited to the Standard PIT.OS.TRA.ACPQF to undertake phytosanitary activities. The operator of the accredited facility must also have an agreement with MPI 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 MPI 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 MPI and the [name of the MPI-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 MPI and the [name of the MPI-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 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 MPI 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 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* nursery stock must be imported under permit into post-entry quarantine in a level 3 quarantine facility accredited to 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

Rhabdopterus picipes

cranberry rootworm

Curculionidae

Anthonomus musculus

cranberry weevil

Conotrachelus nenuphar

plum curculio

Pseudanthonomus validus

currant fruit weevil

Scarabaeidae

Popillia 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 borealis

aphid

Illinoia pepperi

blueberry aphid

Cicadellidae

Euscelis striatulus

Blunt-nosed leafhopper

Scaphytopius magdalensis

sharpnosed leafhopper

Hymenoptera

Tenthredinidae

Caliroa annulipes

sawfly

Neopareophora litura

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

Actebia 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

leaf-tier

Cheimophila salicella

European carnation tortrix

Choristoneura hebenstreitella

tortricid

Choristoneura rosaceana

oblique-banded leafroller

Cydia packardii

cherry fruitworm

<i>Dichomeris vacciniella</i>	leaftier
<i>Hendecaneura shawiana</i>	blueberry tip borer
<i>Spilonota ocellana</i>	eyespotted bud moth
Thysanoptera	
Thripidae	
<i>Catinathrips similis</i>	thrips
<i>Catinathrips vaccinicola</i>	thrips
<i>Frankliniella bispinosa</i>	flower thrips
<i>Frankliniella tritici</i>	eastern flower thrips
<i>Frankliniella vaccinii</i>	blueberry thrips
<i>Scirtothrips ruthveni</i>	-
<i>Taeniothrips vaccinophilus</i>	thrips
Mite	
Arachnida	
Acarina	
Eriophyidae	
<i>Acalitus vaccinii</i>	blueberry bud mite
Fungus	
Ascomycota	
Diaporthales	
Valsaceae	
<i>Diaporthe vaccinii</i> (anamorph <i>Phomopsis vaccinii</i>)	twig blight
Dothideales	
Botryosphaeriaceae	
<i>Botryosphaeria corticis</i>	cane blight
<i>Botryosphaeria vaccinii</i> (anamorph <i>Phyllosticta elongata</i>)	--
Polystomellaceae	
<i>Dothidella vacciniicola</i>	twig canker
Erysiphales	
Erysiphaceae	
<i>Microsphaera vaccinii</i>	powdery mildew
Hypocreales	
Hypocreaceae	
<i>Calonectria ilicicola</i> (anamorph <i>Cylindrocladium crotalariae</i>)	root and stem rot
Leotiales	
Leotiaceae	
<i>Godronia cassandrae</i> (anamorph <i>Fusicoccum putrefaciens</i>)	foliage spot
<i>Godronia cassandrae</i> f. sp. <i>vaccinii</i>	cane canker
Sclerotiniaceae	
<i>Monilinia baccarum</i>	mummy berry
<i>Monilinia fructigena</i> (anamorph <i>Monilia fructigena</i>)	European brown rot
<i>Monilinia ledi</i>	twig blight
<i>Monilinia megalospora</i>	-
<i>Monilinia oxycocci</i>	-
<i>Monilinia urnula</i>	brown rot
<i>Monilinia vaccinii-corymbosi</i>	brown rot
Phyllachorales	
Phyllachoraceae	
<i>Ophiodothella vaccinii</i>	fly speck leaf spot
Meliolales	
Meliolaceae	
<i>Asteridiella exilis</i>	black mildew
Rhytismatales	
Rhytismataceae	
<i>Lophodermium hypophyllum</i>	-
<i>Lophodermium maculare</i>	leaf spot
<i>Rhytisma vaccinii</i>	tar leaf spot

Basidiomycota: Basidiomycetes**Agaricales****Tricholomataceae***Armillaria mellea* (anamorph *Rhizomorpha subcorticalis*) armillaria root rot*Armillaria ostoyae* armillaria root rot**Basidiomycota: Teliomycetes****Uredinales****Pucciniastraceae***Pucciniastrum goeppertianum* rust**Oomycota****Pythiales****Pythiaceae***Phytophthora ramorum* sudden oak death disease**mitosporic fungi (Coelomycetes)****Sphaeropsidales****Sphaerioidaceae***Dothichiza caroliniana* double leaf spot*Coniothyrium vaccinicola* 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****Moniliaceae***Gloeocercospora inconspicua* leaf spot*Ramularia vaccinii* leaf spot**unknown Hyphomycetes****unknown Hyphomycetes***Aureobasidium vaccinii* twig and leaf blight**Bacterium****Pseudomonadaceae***Xylella fastidiosa* Pierce's disease**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* -**Phytoplasma**

Blueberry stunt phytoplasma -

Cranberry false blossom phytoplasma -

Vaccinium witches' broom phytoplasma -

Disease of unknown aetiology

Blueberry fruit drop disease -

Inspection, Testing and Treatment Requirements for *Vaccinium*

ORGANISM TYPES	MPI-ACCEPTED METHODS (See notes below)
Insects	Visual inspection AND approved insecticide treatments (Refer to section 2.2.1.6 of the basic conditions)
Mite	Visual inspection AND approved miticide treatments (Refer to section 2.2.1.6 of the basic conditions)
Fungi	Growing season inspection in PEQ for disease symptom expression.
Bacterium	
<i>Agrobacterium rubi</i>	Growing season inspection in PEQ for disease symptom expression.
<i>Xylella fastidiosa</i>	Growing season inspection in PEQ for disease symptom expression AND PCR
Virus	
<i>Blueberry leaf mottle virus</i>	Herbaceous indicators Cq and Nc AND ELISA or PCR AND TEM.
<i>Blueberry red ringspot virus</i> (syn. <i>Cranberry ringspot virus</i>)	ELISA or PCR AND TEM.
<i>Blueberry scorch virus</i>	Herbaceous indicator Cq AND ELISA or PCR AND TEM.
<i>Blueberry shock virus</i>	Herbaceous indicators Nc and Nt AND ELISA or PCR AND TEM.
<i>Blueberry shoestring virus</i>	ELISA or PCR AND TEM.
<i>Peach rosette mosaic virus</i>	Herbaceous indicators Cq and Nt AND ELISA or PCR AND TEM.
<i>Tobacco streak virus</i> [strains not in New Zealand]	Herbaceous indicators Cq and Nt AND ELISA or PCR AND TEM.
<i>Tomato ringspot virus</i>	Herbaceous indicators Cq and Nt AND ELISA or PCR AND TEM.
Phytoplasmas	
Blueberry stunt phytoplasma	Nested PCR or real time PCR using universal phytoplasma primers.
Cranberry false blossom phytoplasma	Nested PCR or real time PCR using universal phytoplasma primers.
Vaccinium witches' broom phytoplasma	Nested PCR or real time PCR using universal phytoplasma primers.
Disease of unknown aetiology	
Blue berry fruit drop disease	Growing season inspection in PEQ for disease symptom expression.

Notes:

- The unit for testing is defined in section 2.3.2.1.
- 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.
- Virus testing (herbaceous indexing, transmission electron microscopy, ELISA and PCR) must be carried out in the spring or under spring-like conditions using the new flush of growth. Bacteria and phytoplasma testing (PCR) must be carried out at the end of the summer or under summer-like conditions

Vaccinium plants must 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.

- 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.

5. 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.
6. With prior notification, MPI will accept other internationally recognised testing methods.

Vaccinium macrocarpon

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 macrocarpon*”, and are additional to those specified in sections 1, 2 and 3 of the import health standard.

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

- **Pests of *Vaccinium macrocarpon***
Refer to the pest list.

- **Entry conditions for:**

3.1 *Vaccinium macrocarpon* cuttings and tissue culture from offshore MPI-accredited facilities in any country

An offshore accredited facility is a facility that has been accredited to the Standard PIT.OS.TRA.ACPQF to undertake phytosanitary activities. The operator of the accredited facility must also have an agreement with MPI 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 MPI 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 MPI and the [name of the MPI-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 MPI and the [name of the MPI-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 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 MPI 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 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 *Vaccinium macrocarpon* nursery stock must be imported under permit into post-entry quarantine in a level 3 quarantine facility accredited to 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

Insecta

Coleoptera

Chrysomelidae

Rhabdopterus picipes cranberry rootworm

Curculionidae

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 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 triangularis leaftier
Choristoneura hebenstreitella tortricid
Choristoneura rosaceana oblique-banded leafroller
Dichomeris vacciniella leaftier

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*) --

<i>elongata</i>	
Erysiphales	
Erysiphaceae	
<i>Microsphaera vaccinii</i>	powdery mildew
Leotiales	
Leotiaceae	
<i>Godronia cassandrae</i> (anamorph <i>Fusicoccum putrefaciens</i>)	foliage spot
<i>Godronia cassandrae</i> f. sp. <i>vaccinii</i>	cane canker
Sclerotiniaceae	
<i>Monilinia fructigena</i> (anamorph <i>Monilia fructigena</i>)	European brown rot
<i>Monilinia oxycocci</i>	-
Rhytismatales	
Rhytismataceae	
<i>Lophodermium hypophyllum</i>	-
<i>Lophodermium maculare</i>	leaf spot
<i>Lophodermium oxycocci</i>	-
Basidiomycota: Basidiomycetes	
Agaricales	
Tricholomataceae	
<i>Armillaria mellea</i> (anamorph <i>Rhizomorpha subcorticalis</i>)	armillaria root rot
Basidiomycota: Teliomycetes	
Uredinales	
Pucciniastraceae	
<i>Pucciniastrum goeppertianum</i>	rust
Chytridiomycota	
Chytridiales	
Synchytriaceae	
<i>Synchytrium vaccinii</i>	red leaf gall
Mitosporic fungi (Coelomycetes)	
Sphaeropsidales	
Sphaerioidaceae	
<i>Coniothyrium vaccinicola</i>	brand canker
<i>Phoma vaccinii</i>	stem blight
<i>Septoria vaccinii</i>	septoria spot
<i>Strasseria oxycocci</i>	fruit rot
unknown Coelomycetes	
unknown Coelomycetes	
<i>Gloeosporium minus</i>	leaf spot and stem canker
<i>Leptothyrium conspiciuum</i>	fly speck
Oomycota	
Pythiales	
Pythiaceae	
<i>Phytophthora ramorum</i>	Sudden Oak Death disease
Bacterium	
Rhizobiaceae	
<i>Agrobacterium rubi</i>	cane gall
Virus	
<i>Blueberry scorch virus</i>	
<i>Blueberry red ringspot virus</i> (syn. <i>Cranberry ringspot virus</i>)	-
<i>Tobacco streak virus</i> [strains not in New Zealand]	-
Phytoplasma	
Cranberry false blossom phytoplasma	-

Inspection, Testing and Treatment Requirements for *Vaccinium macrocarpon*

ORGANISM TYPES	MPI-ACCEPTED METHODS (See notes below)
Insects	Visual inspection AND approved insecticide treatments (Refer to section 2.2.1.6 of the basic conditions)
Mite	Visual inspection AND approved miticide treatments (Refer to section 2.2.1.6 of the basic conditions)
Fungi	Growing season inspection in PEQ for disease symptom expression.
Bacterium	
<i>Agrobacterium rubi</i>	Growing season inspection in PEQ for disease symptom expression.
Virus	
<i>Blueberry scorch virus</i>	Herbaceous indicator Cq AND ELISA or PCR AND TEM.
<i>Blueberry red ringspot virus</i> (syn. <i>Cranberry ringspot virus</i>)	ELISA or PCR AND TEM.
<i>Tobacco streak virus</i> [strains not in New Zealand]	Herbaceous indicators Cq and Nt AND ELISA or PCR AND TEM.
Phytoplasmas	
Cranberry false blossom phytoplasma	Nested PCR or real time PCR using universal phytoplasma primers.

Notes:

1. The unit for testing is defined in section 2.3.2.1.
2. 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.
3. Virus testing (herbaceous indexing, transmission electron microscopy, ELISA and PCR) must be carried out in the spring or under spring-like conditions using the new flush of growth. Bacteria and phytoplasma testing (PCR) must be carried out at the end of the summer or under summer-like conditions

Vaccinium plants must 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.

4. 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.
5. 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.
6. With prior notification, MPI 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 *Verbena*”, and are additional to those specified in sections 1, 2 and 3 of the import health standard.

GENERAL CONDITIONS:

Approved 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.

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:

Approved 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:

PEQ: Level 2

Minimum Period: 3 months

1. 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) _____".
2. Conditions for *Phytophthora ramorum* (section 2.2.1.11)

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 *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 MPI-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 cultures from offshore MPI-accredited facilities in any country

An offshore accredited facility is a facility that has been accredited to the Standard PIT.OS.TRA.ACPQF to undertake phytosanitary activities. For *Vitis*, the accredited facility operator must also have an agreement with MPI 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 MPI 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

- 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].

AND

- held and tested for/classified free from specified regulated pests as required in the agreement between MPI and the [name of the MPI-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 *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 MPI and the [name of the MPI-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."

(iv) Post-entry quarantine

PEQ: “All *Vitis* nursery stock must be imported under permit into post-entry quarantine in a Level 2 quarantine facility (or level 3 quarantine facility at the direction of the CTO) accredited to 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 in post-entry quarantine and will be inspected, treated and/or audit-tested for regulated pests, at the expense of the importer. The minimum quarantine period will be:

- 6 months for plants in tissue culture and cuttings sourced from mother plants that have been kept in insect-proof plant houses (which may be extended to a minimum of 16 months at the direction of the CTO); or
 - 16 months (which may be reduced to a minimum of 9 months at the discretion of the CTO) for cuttings sourced directly from open ground mother plants.
- 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 MPI 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

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 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 active growth 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

<i>Amphicerus bicaudatus</i>	apple twig borer
<i>Amphicerus bimaculatus</i>	bostrichid beetle
<i>Amphicerus cornutus</i>	-
<i>Apate congener</i>	-
<i>Apate monachus</i>	black borer
<i>Bostrychopsis jesuita</i>	large auger beetle
<i>Dexicrates robustus</i>	-
<i>Melalgus confertus</i>	branch and twig borer
<i>Micrapate scabrata</i>	-
<i>Neoterius mistax</i>	-
<i>Psoa quadrisignata</i>	-
<i>Schistocerus bimaculatus</i>	grape cane borer
<i>Scobicia declivis</i>	lead cable borer
<i>Xylopertha retusa</i>	wood boring beetle
<i>Xylopsocus gibbicollis</i>	-

Buprestidae

<i>Agrilus marginicollis</i>	flatheaded grape borer
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Carabidae

<i>Adoxus obscurus</i> [Animals Biosecurity]	-
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Cerambycidae

<i>Acalolepta vastator</i>	-
<i>Cerasphorus albofasciatus</i>	grape trunk borer

Chrysomelidae

<i>Altica chalybaea</i>	grape flea beetle
<i>Altica torquata</i>	grapevine flea beetle
<i>Bromius obscurus</i>	western grape rootworm
<i>Fidia viticida</i>	grape root worm
<i>Glyptoscelis squamulata</i>	grape bud beetle
<i>Haltica</i> spp.	-
<i>Monolepta australis</i>	red-shouldered leaf beetle

Coccinellidae

<i>Coccinella transversoguttata</i> [Animals Biosecurity]	-
<i>Midas pygmaeus</i> [Animals Biosecurity]	-
<i>Nephus reunioni</i> [Animals Biosecurity]	-
<i>Rhyzobius ruficollis</i> [Animals Biosecurity]	-
<i>Stethorus</i> spp. [Animals Biosecurity]	-

Curculionidae

<i>Bustomus setulosus</i>	brown weevil
<i>Craponius inaequalis</i>	grape curculio
<i>Dischista cincna</i>	flower beetle
<i>Eremnus atratus</i>	black weevil
<i>Eremnus cerealis</i>	western province grain worm
<i>Eremnus setulosus</i>	grey weevil
<i>Naupactus xanthographus</i>	fruit tree weevil
<i>Orthorhinus cylindrirostris</i>	elephant weevil
<i>Orthorhinus klugi</i>	immigrant acacia weevil
<i>Otiorhynchus cribricollis</i>	cribrate weevil
<i>Perperus</i> spp.	apple root weevils
<i>Platyaspistes glaucus</i>	-
<i>Platyaspistes venustus</i>	-
<i>Rhigopsis effracta</i>	-
<i>Tanyrhynchus carinatus</i>	bud nibbler

Elateridae	
<i>Limonius canus</i>	Pacific Coast wireworm
Meloidae	
<i>Mylabris oculata</i>	-
Scarabaeidae	
<i>Athlia rustica</i>	-
<i>Cotalpa ursina</i>	-
<i>Hoplia callipyge</i>	-
<i>Hoplia pubicollis</i>	-
<i>Macrodactylus subspinosus</i>	rose chafer
<i>Pachnoda sinuata</i>	scarab beetle
<i>Popillia japonica</i>	Japanese beetle
<i>Schizonycha</i> sp.	cockchafer
Scolytidae	
<i>Scolytus japonicus</i>	Japanese bark beetle
<i>Xyleborus dispar</i>	ambrosia beetle
<i>Xyleborus semiopacus</i>	black twig borer
Staphylinidae	
<i>Oligota pygmaea</i> [Animals Biosecurity]	-
Tenebrionidae	
<i>Blapstinus</i> sp.	darkling beetle
<i>Coniontis parviceps</i>	-
<i>Metoponium abnorme</i>	-
Diptera	
Cecidomyiidae	
<i>Diadiplosis koebelei</i>	-
Tachinidae	
<i>Ollacheryphe aenea</i> [Animals Biosecurity]	-
<i>Sturmia harrisinae</i> [Animals Biosecurity]	-
<i>Voriella uniseta</i> [Animals Biosecurity]	-
Hemiptera	
Anthocoridae	
<i>Orius</i> sp. [Animals Biosecurity]	-
Coreidae	
<i>Anthocoris</i> sp.	-
<i>Mictis profana</i>	crusader bug
Lygaeidae	
<i>Nysius raphanus</i>	false chinch bug
<i>Nysius vinitor</i>	Rutherglen bug
<i>Oxycarenus arctatus</i>	coon bug
Miridae	
<i>Creontiades dilutus</i>	green mirid
Pentatomidae	
<i>Euschistus conspersus</i>	stink bug
<i>Oechalia schellenbergi</i> [Animals Biosecurity]	Schellenberg's soldier bug
Pyrrhocoridae	
<i>Dindymus versicolor</i>	harlequin bug
Homoptera	
Aleyrodidae	
<i>Aleurocanthus woglumi</i>	citrus blackfly
<i>Tetraleurodes vittatus</i>	-
<i>Trialeurodes vittata</i>	grape whitefly
Aphididae	
<i>Aphis illinoisensis</i>	grapevine aphid
<i>Aphis medicaginis</i>	-
Asterolecaniidae	
<i>Asterolecanium pustulans</i>	oleander pit scale
Cerococcidae	
<i>Asterococcus muratae</i>	pit scale
Cicadellidae	
<i>Acia lineatifrons</i>	leafhopper
<i>Carneocephala fulgida</i>	red-headed sharpshooter

<i>Carnecephala fulgida</i> [vector]	red-headed sharpshooter
<i>Dikrella cockerellii</i>	blackberry leafhopper
<i>Draeculacephala minerva</i>	green sharpshooter
<i>Draeculacephala minerva</i> [vector]	green sharpshooter
<i>Empoasca</i> sp.	green leafhopper
<i>Erythroneura comes</i>	eastern grape leafhopper
<i>Erythroneura elegantula</i>	western grape leafhopper
<i>Erythroneura variabilis</i>	variegated grape leafhopper
<i>Erythroneura ziczac</i>	-
<i>Graphocephala atropunctata</i>	leafhopper
<i>Graphocephala atropunctata</i> [vector]	blue-green sharpshooter
<i>Hordnia circellata</i>	-
<i>Scaphoideus titanus</i> [vector]	raspberry leafhopper
Cicadidae	
<i>Platypedia minor</i>	-
<i>Tettigades chilensis</i>	-
Coccidae	
<i>Ceroplastes rusci</i>	fig wax scale
<i>Eulecanium cerasorum</i>	calico scale
<i>Eulecanium pruinosum</i>	frosted scale
<i>Heliococcus bohemicus</i>	scale
<i>Parthenolecanium persicae</i>	European peach scale
<i>Pulvinaria betulae</i>	scale
<i>Pulvinaria innumerabilis</i>	cottony maple scale
<i>Pulvinaria vitis</i>	woolly vine scale
Diaspididae	
<i>Aonidiella inornata</i>	inornate scale
<i>Chrysomphalus aonidum</i>	Florida red scale
<i>Diaspidiotus uvae</i>	grape scale
<i>Oceanspidiotus spinosus</i>	armoured scale
<i>Parlatoria cinerea</i>	chaff scale
<i>Parlatoria oleae</i>	olive scale
<i>Pinnaspis strachani</i>	hibiscus snow scale
<i>Pseudaonidia trilobitiformis</i>	trilobite scale
<i>Pseudaulacaspis pentagona</i>	white peach scale
<i>Quadraspidiotus juglansregiae</i>	walnut scale
<i>Selenaspidus articulatus</i>	West Indian red scale
Margarodidae	
<i>Eurhizococcus brasiliensis</i>	margarodid
<i>Icerya seychellarum</i>	Seychelles scale
<i>Margarodes capensis</i>	Seychelles fluted scale
<i>Margarodes greeni</i>	soft scale
<i>Margarodes meridionalis</i>	-
<i>Margarodes prieskaensis</i>	margarodid
<i>Margarodes trimeni</i>	margarodid
<i>Margarodes vitis</i>	-
<i>Margarodes vredendalensis</i>	margarodid
Membracidae	
<i>Ceresa bubalus</i>	tree hopper
<i>Spissistilus bisonia</i>	-
<i>Spissistilus festinus</i>	three-cornered alfalfa hopper
Phylloxeridae	
<i>Viteus vitifoliae</i> [strain]	grape phylloxera
Pseudococcidae	
<i>Maconellicoccus hirsutus</i>	pink hibiscus mealybug
<i>Planococcus ficus</i>	fig mealybug
<i>Pseudococcus capensis</i>	-
<i>Pseudococcus maritimus</i>	grape mealybug
<i>Rhizoecus kondonis</i>	Kondo mealybug
Hymenoptera	
Aphelinidae	
<i>Coccophagus caridei</i> [Animals Biosecurity]	-

<i>Coccophagus gurneyi</i> [Animals Biosecurity]	-
Bethylidae	
<i>Goniozus platynota</i> [Animals Biosecurity]	-
Braconidae	
<i>Apanteles harrisinae</i> [Animals Biosecurity]	-
<i>Bracon cushmani</i> [Animals Biosecurity]	-
<i>Dolichogenidea tasmanica</i> [Animals Biosecurity]	-
Dryinidae	
<i>Aphelopus albopictus</i> [Animals Biosecurity]	-
Encyrtidae	
<i>Acerophagus notativentris</i> [Animals Biosecurity]	-
<i>Anagyrus clauseni</i> [Animals Biosecurity]	-
<i>Anagyrus fusciventris</i> [Animals Biosecurity]	-
<i>Anagyrus pseudococci</i> [Animals Biosecurity]	-
<i>Leptomastix dactylopii</i> [Animals Biosecurity]	parasitic wasp
<i>Metaphycus flavus</i> [Animals Biosecurity]	-
<i>Pseudaphycus angelicus</i> [Animals Biosecurity]	-
<i>Zarhopalus corvinus</i> [Animals Biosecurity]	-
Eulophidae	
<i>Colpoclypeus florus</i> [Animals Biosecurity]	-
Formicidae	
<i>Anoplolepis steingroeveri</i> [Animals Biosecurity]	black ant
<i>Crematogaster peringueyi</i> [Animals Biosecurity]	cocktail ant
<i>Formica cinerea</i> [Animals Biosecurity]	ant
<i>Pogonomyrmex californica</i> [Animals Biosecurity]	California harvester ant
<i>Solenopsis xyloni</i> [Animals Biosecurity]	southern fire ant
<i>Veromessor pergandei</i> [Animals Biosecurity]	desert seed-harvester ant
Ichneumonidae	
<i>Campoplex capitator</i> [Animals Biosecurity]	-
<i>Dicaelotus inflexus</i> [Animals Biosecurity]	-
Mymaridae	
<i>Anagrus epos</i> [Animals Biosecurity]	-
Pteromalidae	
<i>Ophelosia charlesii</i> [Animals Biosecurity]	-
<i>Pachyneuron</i> sp. [Animals Biosecurity]	-
Trichogrammatidae	
<i>Trichogramma funiculatum</i> [Animals Biosecurity]	-
<i>Trichogrammatomyia tortricis</i> [Animals Biosecurity]	-
Vespidae	
<i>Polistes buysoni</i> [Animals Biosecurity]	-
Isoptera	
Kalotermitidae	
<i>Cryptotermes brevis</i>	West Indian drywood termite
<i>Kalotermes flavicollis</i>	termite
<i>Kalotermes minor</i>	-
<i>Neotermes chilensis</i>	termite
Rhinotermitidae	
<i>Coptotermes acinaciformis</i> [official control]	Australian subterranean termite
<i>Reticulitermes hesperus</i>	-
Termopsidae	
<i>Porotermes quadricollis</i>	-
Lepidoptera	
Agaristidae	
<i>Agarista agricola</i>	painted vine moth
<i>Heraclia superba</i>	grapevine zebra moth
Arctiidae	
<i>Estigmene acrea</i>	saltmarsh caterpillar
<i>Hyphantria cunea</i>	fall webworm
<i>Laora variabilis</i>	-
<i>Spilosoma virginica</i>	yellow woollybear
<i>Turuptiana obliqua</i>	tiger moth
Cossidae	

<i>Coryphodema tristis</i>	quince trunk borer
<i>Zeuzera coffeae</i>	red coffee borer
Heliozelidae	
<i>Antispila rivillei</i>	-
Noctuidae	
<i>Achaea</i> spp.	fruit-piercing moths
<i>Agrotis munda</i>	brown cutworm
<i>Alabama argillacea</i>	cotton leafworm
<i>Anomis mesogona</i>	hibiscus looper
<i>Anomis</i> spp.	-
<i>Calyptra</i> spp.	fruit-piercing moths
<i>Copitarsia consueta</i>	noctuid moth
<i>Eudocima</i> spp.	fruit-piercing moths
<i>Euxoa messoria</i>	darksided cutworm
<i>Euxoa ochrogaster</i>	redbacked cutworm
<i>Helicoverpa punctigera</i>	oriental tobacco budworm
<i>Mythimna</i> sp.	-
<i>Noctua fimbriata</i>	broad-bordered yellow underwing
<i>Noctua pronuba</i>	large yellow underwing
<i>Oraesia</i> spp.	fruit-piercing moths
<i>Orthodes rufula</i>	cutworm
<i>Peridroma margaritosa</i>	-
<i>Peridroma saucia</i>	variegated cutworm
<i>Protorthodes rufula</i>	-
<i>Serrodus</i> spp.	fruit-piercing moth
<i>Sphingomorpha</i> spp.	-
<i>Spodoptera littoralis</i>	cotton leafworm
<i>Xestia c-nigrum</i>	spotted cutworm
Oecophoridae	
<i>Echiomima</i> sp.	-
<i>Maroga melanostigma</i>	fruit tree borer
Psychidae	
<i>Gymnelema plebigena</i>	bagworm
Pterophoridae	
<i>Geina periscelidactylus</i>	-
Pyralidae	
<i>Desmia funeralis</i>	grape leaf-folder
<i>Euzophera bigella</i>	quince moth
<i>Ostrinia nubilalis</i>	European corn borer
Saturniidae	
<i>Hemileuca eglanterina</i>	brown day-moth
<i>Hyalophora cecropia</i>	cecropia moth
Sesiidae	
<i>Vitacea polistiformis</i>	grape root borer
Sphingidae	
<i>Eumorpha achemon</i>	achemon sphinx
<i>Hippotion celerio</i>	grapevine hawk moth
<i>Hyles euphorbiae</i>	spurge hawk moth
<i>Hyles lineata</i>	whitelined sphinx
<i>Theretra capensis</i>	grapevine hawk moth
<i>Theretra oldenlandiae</i>	vine hawk moth
Tortricidae	
<i>Archips argyrospilus</i>	fruit tree leafroller
<i>Argyrotaenia citrana</i>	orange tortrix
<i>Argyrotaenia ljugiana</i>	grey red-barred tortrix
<i>Argyrotaenia velutinana</i>	red-banded leafroller
<i>Cryptophlebia leucotreta</i>	false codling moth
<i>Endopiza viteana</i>	-
<i>Eulia stalactitis</i>	-
<i>Eupoecilia ambiguella</i>	vine moth
<i>Lobesia botrana</i>	grape berry moth
<i>Paralobesia viteana</i>	grape berry moth

<i>Platynota stultana</i>	omnivorous leafroller
<i>Proeulia auraria</i>	grapevine leafroller
<i>Proeulia triqueta</i>	-
Zygaenidae	
<i>Harrisina americana</i>	grapeleaf skeletonizer
<i>Harrisina brillians</i>	western grapeleaf skeletonizer
<i>Theresimima ampelophaga</i>	zygaenid butterfly
Neuroptera	
Chrysopidae	
<i>Chrysopa oculata</i> [Animals Biosecurity]	-
<i>Chrysopa</i> spp. [Animals Biosecurity]	-
Coniopterygidae	
<i>Cryptoscenea australiensis</i> [Animals Biosecurity]	-
Hemerobiidae	
<i>Micromus</i> sp. [Animals Biosecurity]	-
Orthoptera	
Acrididae	
<i>Melanoplus femurrubrum</i>	red-legged grasshopper
<i>Melanoplus mexicanus devastator</i>	-
<i>Oedaleonotus enigma</i>	-
<i>Phaulacridium vittatum</i>	wingless grasshopper
<i>Schistocerca cancellata</i>	-
<i>Schistocerca shoshone</i>	-
<i>Schistocerca vaga</i>	-
Gryllidae	
<i>Acheta fulvipennis</i>	cricket
<i>Microgryllus pallipes</i>	cricket
Tettigoniidae	
<i>Caedicia</i> spp.	-
<i>Plangia graminea</i>	grasshopper
Thysanoptera	
Phlaeothripidae	
<i>Haplothrips victoriensis</i>	tubular black thrips
Thripidae	
<i>Caliothrips fasciatus</i>	bean thrip
<i>Drepanothrips reuteri</i>	grape thrips
<i>Frankliniella cestrum</i>	tomato thrips
<i>Frankliniella minuta</i>	minute flower thrips
<i>Frankliniella occidentalis</i> [pesticide resistant strain]	western flower thrips
<i>Heliothrips sylvanus</i>	thrips
<i>Rhipiphorothrips cruentatus</i>	leaf thrips
<i>Scirtothrips citri</i>	citrus thrips
<i>Scolothrips sexmaculatus</i> [Animals Biosecurity]	-
Unknown Insecta	
Unknown Insecta	
<i>Cryptolarynx vitis</i>	-
<i>Dyctineis pulvinosus</i>	-
Mite	
Arachnida	
Acarina	
Anystidae	
<i>Anystis agilis</i> [Animals Biosecurity]	-
Eriophyidae	
<i>Colomerus vitis</i> [leaf curling strain]	grape erineum mite
<i>Phyllocoptes vitis</i>	erriophyid mite
Phytoseiidae	
<i>Amblyseius victoriensis</i> [Animals Biosecurity]	-
<i>Metaseiulus occidentalis</i> [Animals Biosecurity]	-
<i>Neoseiulus chilensis</i> [Animals Biosecurity]	predator mite
<i>Typhlodromus doreenae</i> [Animals Biosecurity]	-
Tenuipalpidae	

<i>Brevipalpus chilensis</i>	false spider mite
<i>Brevipalpus lewisi</i>	bunch mite
<i>Brevipalpus lilium</i>	false spider mite
<i>Brevipalpus obovatus</i>	privet mite
<i>Tenuipalpus granati</i>	false spider mite
Tetranychidae	
<i>Eotetranychus carpini</i>	tetranychid mite
<i>Eotetranychus pruni</i>	hickory scorch mite
<i>Eotetranychus smithi</i>	tetranychid mite
<i>Eotetranychus viticola</i>	tetranychid mite
<i>Eotetranychus willamettei</i>	hazel mite
<i>Eotetranychus yumensis</i>	Yumi spider mite
<i>Eutetranychus orientalis</i>	pear leaf blister mite
<i>Oligonychus coffeae</i>	tea red spider mite
<i>Oligonychus mangiferus</i>	mango spider mite
<i>Oligonychus peruvianus</i>	spider mite
<i>Oligonychus punicae</i>	avocado brown mite
<i>Oligonychus yothersi</i>	avocado red mite
<i>Tetranychus kanzawai</i>	kanzawa mite
<i>Tetranychus mcdanieli</i>	McDaniel spider mite
<i>Tetranychus pacificus</i>	Pacific spider mite
Mollusc	
Gastropoda	
Stylommatophora	
Helicidae	
<i>Cernuella virgata</i>	small banded snails
<i>Cochlicella barbara</i>	small pointed garden snail
<i>Theba pisana</i>	white Italian snail
Fungus	
Ascomycota	
Caliciales	
Unknown Caliciales	
<i>Roesleria pallida</i>	grape root rot
Diaporthales	
Valsaceae	
<i>Diaporthe rudis</i> (anamorph <i>Phomopsis rudis</i>)	phomopsis canker
Dothideales	
Mycosphaerellaceae	
<i>Guignardia bidwellii</i> (anamorph <i>Phyllosticta ampellicida</i>)	black rot
<i>Guignardia bidwellii</i> f. sp. <i>euvitis</i>	-
<i>Guignardia bidwellii</i> f. sp. <i>muscadinii</i>	-
<i>Mycosphaerella angulata</i> (anamorph <i>Cercospora brachypus</i>)	angular leaf spot
Schizothyriaceae	
<i>Schizothyrium pomi</i> (anamorph <i>Zygophiala jamaicensis</i>)	fly speck
Hypocreales	
Hypocreaceae	
<i>Cylindrocarpon destructans</i> var. <i>crassum</i>	root rot
Leotiales	
Dermateaceae	
<i>Pseudopezicula tetraspora</i>	angular leaf scorch
<i>Pseudopezicula tracheiphila</i>	rotbrenner
Sclerotiniaceae	
<i>Grovesinia pyramidalis</i> (anamorph <i>Cristulariella moricola</i>)	target spot
Rhytismatales	
Rhytismataceae	
<i>Rhytisma vitis</i>	tar spot
Saccharomycetales	

Saccharomycetaceae	
<i>Pichia membranaefaciens</i>	-
Unknown Ascomycota	
Hyponectriaceae	
<i>Physalospora baccae</i>	-
Xylariales	
Xylariaceae	
<i>Anthostomella pullulans</i>	Brulure
Basidiomycota: Basidiomycetes	
Agaricales	
Tricholomataceae	
<i>Armillaria mellea</i> (anamorph <i>Rhizomorpha subcorticalis</i>)	armillaria root rot
<i>Armillaria</i> sp.	armillaria root rot
<i>Armillaria tabescens</i>	armillaria root rot
Ganodermatales	
Ganodermataceae	
<i>Ganoderma lucidum</i> (anamorph <i>Polyporus lucidus</i>)	wood rot
<i>Ganoderma tsugae</i>	-
Poriales	
Coriolaceae	
<i>Bjerkandera adusta</i>	white rot
<i>Bjerkandera fumosa</i>	--
Lentinaceae	
<i>Pleurotus ostreatus</i>	wood decay
Stereales	
Stereaceae	
<i>Stereum</i> sp.	-
Basidiomycota: Teliomycetes	
Uredinales	
Unknown Uredinales	
<i>Physopella ampelopsidis</i>	grape rust
Mitosporic Fungi	
Unknown Mitosporic Fungi	
Unknown Mitosporic Fungi	
<i>Phacellium</i> sp.	-
Mitosporic Fungi (Coelomycetes)	
Sphaeropsidales	
Sphaerioidaceae	
<i>Ascochyta ampelina</i>	leaf spot
<i>Coniella diplodiella</i>	white rot
<i>Coniella petrakii</i>	white rot
<i>Phomopsis longiparaphysata</i>	phomopsis rot
<i>Pyrenochaeta vitis</i>	leaf spot
<i>Septoria ampelina</i>	septoria leaf spot
Unknown Coelomycetes	
Unknown Coelomycetes	
<i>Natrassia toruloidea</i>	leaf spot
<i>Pestalotia menezesiana</i>	fruit rot
<i>Pestalotia pezizoides</i>	fruit and leaf spot
<i>Pestalotiopsis mangiferae</i>	grey leaf spot of mango
<i>Pestalotiopsis uvicola</i>	fruit rot
Mitosporic Fungi (Hyphomycetes)	
Hyphomycetales	
Dematiaceae	
<i>Alternaria vitis</i>	leaf disease
<i>Phaeoramularia dissiliens</i>	cercospora leaf spot
Moniliaceae	
<i>Cephalosporium</i> sp.	--
<i>Penicillium aurantiogriseum</i>	penicillium rot
<i>Verticillium heterocladium</i>	-
Unknown Hyphomycetes	

Unknown Hyphomycetes	
<i>Briosia ampelophaga</i>	leaf blotch
<i>Candida krusei</i>	yeasty rot
<i>Candida steatolytica</i> [Animals Biosecurity]	-
<i>Oidium</i> sp.	powdery mildew
<i>Paecilomyces farinosus</i>	-
<i>Paecilomyces</i> spp.	-
<i>Phaeoacremonium aleophilum</i>	-
<i>Phaeoisariopsis</i> sp.	-
<i>Stigmina vitis</i>	leaf fall
Bacterium	
Pseudomonadaceae	
<i>Xanthomonas campestris</i> pv. <i>viticola</i>	bacterial canker
<i>Xylella fastidiosa</i>	Pierce's disease
<i>Xylophilus ampelinus</i>	bacterial blight
Rhizobiaceae	
<i>Agrobacterium rubi</i>	cane gall
Virus	
<i>Artichoke Italian latent virus</i>	-
<i>Cherry leaf roll virus</i> [strains not in New Zealand]	-
<i>Grapevine Ajinashika disease virus</i>	-
<i>Grapevine Algerian latent virus</i>	-
<i>Grapevine Anatolian ringspot virus</i>	-
<i>Grapevine angular mosaic virus</i>	-
<i>Grapevine berry inner necrosis virus</i>	-
<i>Grapevine Bulgarian latent virus</i>	-
<i>Grapevine chrome mosaic virus</i>	-
<i>Grapevine deformation virus</i>	-
<i>Grapevine fanleaf virus</i> [strains not in New Zealand]	-
<i>Grapevine labile rod-shaped virus</i>	-
<i>Grapevine leafroll-associated virus</i> [type 7]	-
<i>Grapevine line pattern virus</i>	-
<i>Grapevine pinot gris virus</i>	-
<i>Grapevine red blotch-associated virus</i>	-
<i>Grapevine stunt virus</i>	-
<i>Grapevine Tunisian ringspot virus</i>	-
<i>Grapevine virus D</i>	-
<i>Peach rosette mosaic virus</i>	-
<i>Petunia asteroid mosaic virus</i>	-
<i>Raspberry ringspot virus</i>	-
<i>Sowbane mosaic virus</i>	-
<i>Strawberry latent ringspot virus</i> [strains not in New Zealand]	-
<i>Tomato ringspot virus</i>	-
Viroid	
<i>Australian grapevine viroid</i>	-
<i>Grapevine yellow speckle viroid 2</i>	-
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)	-
Diseases of unknown aetiology	
Grapevine vein clearing	-

LN33 stem grooving
Syrah decline

-
-

Inspection, Testing and Treatment Requirements for *Vitis*

ORGANISM TYPES	MPI-ACCEPTED METHODS (See notes below)
Insects	Visual inspection AND approved insecticide treatments (Refer to section 2.2.1.5 of the basic conditions) [cuttings only]
Mites	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]
Fungi	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
Bacterium	
<i>Agrobacterium rubi</i>	Growing season inspection in PEQ for disease symptom expression AND Hot water treatment (Refer to “Approved Treatments for <i>Vitis</i> ”)
<i>Xanthomonas campestris pv. viticola</i>	Growing season inspection in PEQ for disease symptom expression AND Hot water treatment (Refer to “Approved Treatments for <i>Vitis</i> ”)
<i>Xilophilus ampelinus</i>	Growing season inspection in PEQ for disease symptom expression AND Hot water treatment (Refer to “Approved Treatments for <i>Vitis</i> ”)
<i>Xylella fastidiosa</i>	Growing season inspection in PEQ for disease symptom expression AND PCR (two sets, samples to be collected at least four weeks apart) AND Hot water treatment (Refer to “Approved Treatments for <i>Vitis</i> ”)
Virus	
<i>Artichoke Italian latent virus</i>	Growing season inspection in PEQ for disease symptom expression
<i>Cherry leaf roll virus</i> [strains not in New Zealand]	ELISA or PCR AND herbaceous indicators (Ca, Cq, Cs and Nt)
<i>Grapevine Ajinashika disease virus</i>	Growing season inspection in PEQ for disease symptom expression
<i>Grapevine Algerian latent virus</i>	Growing season inspection in PEQ for disease symptom expression
<i>Grapevine Anatolian ringspot virus</i>	Growing season inspection in PEQ for disease symptom expression
<i>Grapevine angular mosaic virus</i>	Growing season inspection in PEQ for disease symptom expression
<i>Grapevine berry inner necrosis virus</i>	Growing season inspection in PEQ for disease symptom expression
<i>Grapevine Bulgarian latent virus</i>	Herbaceous indicators (Ca and Cq)
<i>Grapevine chrome mosaic virus</i>	Herbaceous indicators (Ca, Cq, Cs and Nt)
<i>Grapevine deformation virus</i>	Herbaceous indicators (Ca and Cq)
<i>Grapevine fanleaf virus</i> [strains not in New Zealand]	ELISA or PCR AND herbaceous indicators (Ca, Cq, and Cs)
<i>Grapevine labile rod-shaped virus</i>	Growing season inspection in PEQ for disease symptom expression
<i>Grapevine leafroll-associated virus</i> [type 7]	PCR
<i>Grapevine line pattern virus</i>	Growing season inspection in PEQ for disease symptom expression
<i>Grapevine pinot gris virus</i>	PCR
<i>Grapevine red blotch-associated virus</i>	PCR
<i>Grapevine stunt virus</i>	Growing season inspection in PEQ for disease symptom expression
<i>Grapevine Tunisian ringspot virus</i>	Growing season inspection in PEQ for disease symptom expression
<i>Grapevine virus D</i>	PCR
<i>Peach rosette mosaic virus</i>	ELISA or PCR AND herbaceous indicators (Ca, Cq, Cs and Nt)
<i>Petunia asteroid mosaic virus</i>	PCR or ELISA
<i>Raspberry ringspot virus</i>	ELISA or PCR AND herbaceous indicators (Ca, Cq, Cs and Nt)
<i>Sowbane mosaic virus</i>	Herbaceous indicators (Ca and Cq)
<i>Strawberry latent ringspot virus</i> [strains not in New Zealand]	PCR AND herbaceous indicators (Ca, Cq and Cs)
<i>Tomato ringspot virus</i>	ELISA or PCR AND herbaceous indicators (Ca and Cq)

Viroids	Growing season inspection in PEQ for disease symptom expression
Phytoplasmas	Plants derived from cuttings: Nested PCR or real-time PCR using universal phytoplasma primers AND Hot water treatment (Refer to “Approved Treatments for <i>Vitis</i> ”) Plants derived from tissue cultures: Nested PCR or real-time PCR using universal phytoplasma primers (two sets, samples to be collected at least four weeks apart)
Disease of unknown aetiology	
Grapevine vein clearing	Growing season inspection in PEQ for disease symptom expression
LN33 stem grooving	Woody indexing or green indexing (LN33)
Syrah decline	Additional declaration endorsed on the phytosanitary certificate: “the nursery stock has been sourced from mother plants which are at least ten years old and have been inspected during the growing season and are free from symptoms of Syrah decline” AND growing season inspection in PEQ for disease symptom expression

Notes:

1. The unit for testing is defined in section 2.3.2.1.
2. Herbaceous indicator hosts (**Ca** - *Chenopodium amaranticolor*, **Cq** - *Chenopodium quinoa*, **Cs** - *Cucumis sativus* and **Nt** - *Nicotiana tabacum*): 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 or green indexing: at least two plants of each woody/green indicator must be used in each test. All woody indicators are to be inoculated by double budding while green indicators are top grafted. A suitable positive control must be included.
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, MPI will accept other internationally recognised testing methods.

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 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 *Wollemia nobilis*”, and are additional to those specified in sections 1, 2 and 3 of the import health standard.

1. Type of *Wollemia nobilis* nursery stock approved for entry into New Zealand

Plants *in-vitro*

2. Pests of *Wollemia nobilis*

Refer to the pest list.

3. Entry conditions for:

3.1 *Wollemia nobilis* plants *in-vitro* from Australia

The requirements of this schedule are in addition to the requirements specified in Section 2.2.2 “Entry Conditions for Tissue Culture”.

(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

The full botanical name of *Wollemia nobilis* must be identified upon the phytosanitary certificate.

Before a phytosanitary certificate is issued, the exporting country NPPO must be satisfied that the following activities required by the New Zealand Ministry for Primary Industries (MPI) have been undertaken:

The *Wollemia nobilis* plants *in-vitro* have been:

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

AND

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

AND

- derived from explant material which has been surface sterilised in a solution of 0.5% sodium hypochlorite and sterile water, or MPI approved alternative treatment.

AND

- prepared by asexual reproduction (clonal techniques) under sterile conditions.

AND

- held in a manner to ensure that infestation/reinfestation does not occur following certification.

(iv) Additional declarations to the phytosanitary certificate

No additional declarations are required.

(v) *Post-entry quarantine*

Post-entry quarantine is not required provided that the above measures have been completed.

Pest List for *Wollemia nobilis*

REGULATED PESTS (actionable)

Fungus

Ascomycota

Dothideales

Botryosphaeriaceae

Botryosphaeria spp.

-

Oomycota

Pythiales

Pythiaceae

Phytophthora cinnamomi

black rot

Arbuscular mycorrhizae

All regulated species

Ectomycorrhizae

All regulated species

For organisms intercepted that are not listed within this pest list refer to the Biosecurity Organisms Register for Imported Commodities to determine regulatory status:

<http://www.maf.govt.nz/biosecurity/pests-diseases/registers-lists/boric/>

If the organism is not identified or categorised within the register, please contact

plantimports@mpi.govt.nz

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:

Approved 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.

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 (MPI) 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 (MPI) 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.

(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

(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

Pythiaceae

Phytophthora richardiae

rhizome and root rot

Pythium aphanidermatum

cottony leak

Bacterium

Xanthomonas campestris pv. *zantedeschiae*

-

Virus

Zantedeschia mild 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 *Zingiber*”, and are additional to those specified in sections 1, 2 and 3 of the import health standard.

GENERAL CONDITIONS:

Approved 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."