

# 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 Plants, Food & Environment Directorate PO Box 2526 Wellington 6140, New Zealand www.mpi.govt.nz

Growing and Protecting New Zealand

# CONTENTS

	CONTENTS
Endorsemer	nt
Review	
Amendment	t Record
1.	Introduction
1.1	Official Contact Point
1.1	Scope
	1
1.3	References
1.4	Definitions and Abbreviations
1.5	General
1.6	Convention on International Trade in Endangered Species
1.7	Equivalence
2.	Import Specification and Entry Conditions
2.1	Inspection on Arrival and Maximum Pest Limit
2.2	Entry Conditions
2.2.1	Basic Conditions
2.2.1.1	Types of Nursery Stock that may be Imported
2.2.1.2	Import Permit
2.2.1.2	Labelling
2.2.1.3	Cleanliness
2.2.1.4	
	Phytosanitary Certificate
2.2.1.6	Pesticide treatments for whole plants and cuttings
2.2.1.7	Pesticide treatments for dormant bulbs
2.2.1.8	Measures for Ceratocystis fimbriata
2.2.1.9	Measures for Helicobasidium mompa
2.2.1.10	Measures for Phymatotrichopsis omnivore
2.2.1.11	Measures for Phytophthora ramorum
2.2.1.12	Measures for Xylella fastidiosa
2.2.1.13	Measures for <i>Phellinus noxius</i>
2.2.1.14	Post-Entry Quarantine (PEQ)
2.2.2	Entry Conditions for Tissue Culture
2.2.2.1	Labelling
2.2.2.2	Cleanliness & Tissue Culture Media
2.2.2.3	Phytosanitary Certificate
2.2.2.4	Import Permit
2.2.2.4	Measures for <i>Xylella fastidiosa</i> on tissue culture
2.2.2.6	Post-Entry Quarantine for tissue cultures
2.2.3	Importation of Pollen
2.2.4	Importation of New Organisms
2.3	Compliance Procedures
2.3.1	Validation of Overseas Measures
2.3.2	Treatment and Testing of the Consignment
2.3.3	Biosecurity Clearance
2.4	New Zealand Nursery Stock Returning from Overseas
3.	Schedule of Special Entry Conditions
3.1	Special Entry Conditions
3.2	Accreditation of Offshore Plant Quarantine Facilities
3.3	Amendments to the Plants Biosecurity Index
5.5	A menumento to the Fluido Diobeeurity much

# 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 Director of Plants & Pathways Acting pursuant to delegated Director-General authority

Date: 25 January 2019

# 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 ImportsGroup, Ministry for Primary Industries, TSB House, 149 Lambton Quay, 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 Pesticide treatments for dormant bulbs	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	Ficus schedule	6 September 2005
4	Acacia, Acer, Allium, Canna, Cotoneaster, Cycas, Hippeastrum, Hydrangea, Iris, and Lilium schedules	6 October 2005
5	Acacia, Acer, Begonia, Canna, Cotoneaster and Hydrangea schedules, section 2.2.1.7	8 February 2006
6	Acer, Aesculus, Arbutus, Acacia, Calladium, Camellia, Castanea, Gaultheria, Fagus, Kalmia, Photinia, Prunus, Vaccinum schedules, section 2.2.1.10, section 2.2.1.11	22 May 2006
7	Actinidia, Hippeastrum and Prunus schedules	9 August 2006
8	Allium, Fragaria, Hippeastrum, Miscanthus, Solanum tuberosum, and Zantedeschia schedules.	4 August 2008
9	Corylus and Wollemia nobilis schedules.	10 November 2008
10	Allium, Persea, Rubus, Vaccinium, and Vaccinium macrocarpon 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	Tulipa schedule	18 January 2010
14	<i>Prunus, Solanum tuberosum,</i> and <i>Vaccinium macrocarpon</i> schedules.	6 July 2010
15	Allium schedule	13 September 2010
16	Berberis, Carpinus, Cotoneaster, Eucalyptus, Nandina, Olea, Populus, Pseudotsuga, Ulmus schedules, section 2.2.1.10 and section 2.2.1.11	7 June 2011
17	Phalaenopsis schedule	8 August 2011
18	Removal of the schedules for <i>Acca sellowiana</i> and <i>Agonis, with</i> incorporation under the <i>Metrosideros</i> schedule. Amendment to the <i>Eucalyptus</i> and <i>Eugenia</i> schedules.	25 August 2011
19	Dracaena schedule	12 September 2011
20	Malus schedule	20 June 2012
21	Artocarpus schedule	29 June 2012
22	<i>Cycas, Dracaena, Fuchsia</i> schedules, section 2.2.1.10, 2.2.1.11, 2.2.3 and 2.3.3	16 August 2012
23	Solanum tuberosum schedule	8 April 2013
24	Eucalyptus, Eugenia, Metrosideros and Vitis schedules	22 May 2013
25	Actinidia schedule	6 September 2013

26	Section 2.2.2.2	27 January 2014
27	Vitis schedule	11 March 2014
28	Rubus schedule	21 March 2014
29	Section 2.3.2.1, section 2.2.1.11, schedules for Allium, Begonia, Canna, Citrus, Crocus, Dahlia, Fortunella, Fragaria, Gladiolus, Hippeastrum, Lilium, Malus, Miscanthus x giganteus, Narcissus, Olea, Persea, Poncirus, Prunus, Rubus, Solanum tuberosum, Tulipa, Vaccinium, Vaccinium macrocarpon and Vitis	11 June 2014
30	Schedules for Chrysanthemum, Diascia, Dahlia and Solanum	18 August 2014
31	Schedules for Citrus, Fortunella, Fragaria, Malus and Poncirus	27 November 2014
32	Schedules for Hippeastrum and Vitis	21 January 2015
33	Sections 2.2.1.6, 2.2.1.7 and 2.2.1.8 (new section for <i>Ceratocystis fimbriata</i> , with renumbering of subsequent sections). 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</i> <i>sylvatica</i> , <i>Ficus</i> , <i>Fragaria</i> , <i>Juglans</i> , <i>Malus</i> , <i>Mangifera</i> , <i>Metrosideros</i> , <i>Platanus</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
34	Schedules for Fragaria, Malus, Olea, Prunus, Rubus, Solanum tuberosum, Vaccinium and Vitis	11 March 2016
35	Section 2.2.1.12, and schedule for <i>Acacia</i>	06 May 2016
36	Section 2.2.1.13 (new section for <i>Phellinus noxius</i> , with renumbering of subsequent sections). Schedules for <i>Acacia</i> , <i>Acrocomia</i> , <i>Aesculus</i> , <i>Araucaria</i> , <i>Arbutus</i> , <i>Artocarpus</i> , <i>Camellia</i> , <i>Camellia sinensis</i> , <i>Cedrus</i> , <i>Citrus</i> , <i>Crataegus</i> , <i>Cycas</i> , <i>Delphinium</i> , <i>Diospyros</i> , <i>Eriobotrya</i> , <i>Eucalyptus</i> , <i>Eugenia</i> , <i>Ficus</i> , <i>Fortunella</i> , <i>Hebe</i> , <i>Hydrangea</i> , <i>Litchi</i> , <i>Mangifera</i> , <i>Metrosideros</i> , <i>Nandina</i> , <i>Persea</i> , <i>Planera</i> , <i>Poncirus</i> , <i>Populus</i> , <i>Prunus</i> , <i>Rhododendron</i> , <i>Rosa</i> , <i>Salix</i> , <i>Ulmus</i> , and <i>Vitis</i>	21 November 2016
37	Sections 1.3, 1.4, 2.2.1.12, 2.2.1.12, 2.3.2. Schedules for Acacia, Acer, Acrocomia, Aesculus, Arbutus, Asparagus, Bidens, Canna, Carya, Carya ovata, Castanea, Citrus, Cotoneaster, Delphinium, Diospyros, Eucalyptus, Eugenia, Eupatorium, Fagus, Fagus sylvatica, Ficus, Fuchsia, Fortunella, Fragaria, Helianthus, Hebe, Humulus, Hydrangea, Ipomoea batatas, Juglans, Juniperus, Metrosideros, Nandina, Olea, Persea, Phoenix, Photinia, Platanus, Poncirus, Populus, Prunus, Pseudotsuga, Pyrus, Quercus, Ranunculus, Rosa, Rubus, Salix, Solanum tuberosum, Solidago, Ulmus, Vaccinium, Verbena and Vitis	21 December 2016
38	Schedule for <i>Rosa</i>	22 December 2016

39	Sections 2.2.2.4, 2.2.2.5 (new section for <i>Xylella fastidiosa</i> ), 2.2.2.6 (new section for post entry quarantine), and 2.3. Schedules for <i>Acacia, Acer, Acrocomia, Aesculus, Arbutus,</i> <i>Asparagus, Bidens, Canna, Carya, Carya ovata, Castanea,</i> <i>Cotoneaster, Delphinium, Diospyros, Eucalyptus, Eugenia,</i> <i>Eupatorium, Fagus, Fagus sylvatica, Ficus, Fuchsia, Hebe,</i> <i>Humulus, Hydrangea, Ipomoea batatas, Juglans, Malus,</i> <i>Metrosideros, Nandina, Phoenix, Photinia, Platanus, Populus,</i> <i>Prunus, Pseudotsuga, Quercus, Ranunculus, Rosa, Salix,</i> <i>Solanum tuberosum, Solidago, Ulmus, Vaccinium macrocarpon,</i> and Verbena	27 February 2017
40	Updated sections 1.3 and 1.4, and relevant schedules to align with commencement of Facility Standard: Post Entry Qurantine for Plants (MPI.STD.PEQ).	8 March 2017
41	Addition of Petunia schedule.	9 June 2017
42	Amendment to the Petunia schedule with new GM requirements	31 October 2017
43	Amendment to the <i>Vaccinium</i> schedule with a change to post entry quarantine requirements for tissue cultures.	11 December 2017
44	Amendment to the <i>Delphinium</i> schedule with addition of <i>Euryops</i> for conditions for <i>Xylella fastidiosa</i> .	04 April 2018
45	Addition of conditions for <i>Phytophthora capsici</i> , <i>P. palmivora</i> and <i>P. tentaculata</i> in the following schedules: <i>Abies, Acacia,</i> <i>Acer, Acrocomia, Aesculus, Allium, Araucaria, Arbutus,</i> <i>Artocarpus, Calanthe, Carica, Chrysanthemum, Crataegus,</i> <i>Dahlia, Delphinium, Dianthus, Dianthus caryophyllus,</i> <i>Diospyros, Dracaena, Eugenia, Ficus, Gerbera, Hebe, Lilium,</i> <i>Mangifera, Metrosideros, Olea, Paulownia, Phalaenopsis,</i> <i>Phoenix, Solanum, Verbena, Yucca</i> and creation of three new schedules (i.e. Anthurium, Chichorium and Epipremnum schedules).	26 April 2018
46	Amendment to the <i>Solanum tuberosum</i> schedule with addition of ' <i>Candidatus</i> Liberibacter solanacearum' haplotype B, Columbia basin purple top phytoplasma, <i>Pectobacterium</i> <i>polaris</i> and <i>Potato Virus</i> H.	26 June 2018
47	Amendment to the <i>Anthurium</i> and <i>Rosa</i> schedules with additions of measures for <i>Ralstonia pseudosolanacearum</i>	25 January 2019

# 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 5514Fax:+64 4 894 0662E-mail:plantimports@mpi.govt.nzWebsite:http://www.mpi.govt.nz

### **1.2 SCOPE**

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

### **1.3 REFERENCES**

### New Zealand legislation

- Biosecurity Act 1993
- Hazardous Substances and New Organisms Act 1996 (HSNO Act 1996)

### Standards issued under the Biosecurity Act

The following standards can be accessed on the website:

http://www.mpi.govt.nz/importing/plants/nursery-stock/requirements

- Facility Standard: Post Entry Quarantine for Plants (MPI.STD.PEQ)
- Operational Standard PIT-OS-TRA-ACPQF: Accreditation of Offshore Plant Quarantine Facilities and Operators
- Diagnostic Facility Standard 155.04.03: A standard for diagnostic facilities which undertake the identification of new organisms, excluding animal pathogens

The following standards can be accessed on the website: http://mpi.govt.nz/importing/plants/seeds-for-sowing/genetically-modified-seeds/

- Operational Standard PIT-GMO-ALGMOT: Approval of Laboratories for Genetically Modified Organism Testing
- Operational Code: Protocol for Testing for the Presence of Genetically Modified Plant Material

### International Standard for Phytosanitary Measures (ISPM)

- ISPM 04. Requirements for the establishment of pest free areas
- ISPM 05. Glossary of phytosanitary terms
- ISPM 10. Requirements for the establishment of pest free places of production and pest free production sites
- ISPM 12. Phytosanitary certificates
- ISPM 20. Guidelines for a phytosanitary import regulatory system
- ISPM 24. Guidelines for the determination and recognition of equivalence of phytosanitary measures
- ISPM 27. Diagnostic protocols for regulated pests

# 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.

**Consignment:** A quantity of plants, plant products or other articles being moved from one country to another and covered, when required, by a single phytosanitary certificate (a consignment may be composed of one of more commodities or lots) [FAO, 1990; revised ICPM, 2001]

**Country of origin (of a consignment of plants):** Country where the plants were grown [FAO, 1990; revised CEPM, 1996; CEPM, 1999]

**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.

**Free from (of a consignment, field or place of production):** Without pests (or a specific pest) in numbers or quantities that can be detected by the application of phytosanitary procedures [FAO, 1990; revised FAO, 1995; CEPM, 1999]

**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), Level 3 (L3), Level 3A (L3A) or Level 3B (L3B) 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 Facility Standard: Post Entry Quarantine for Plants [MPI.STD.PEQ]).

**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:** Living plants and parts thereof, including seeds and germplasm [FAO, 1990; revised IPPC, 1997]

**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: <u>MPI Plant Biosecurity Index</u>

**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 1 (open field facility), Level 2 (aquarium, greenhouse, or tissue culture facility), Level 3 (tissue culture facility), Level 3A (greenhouse facility), Level 3B (greenhouse facility)] 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 0862Fax:+64 4 894 0662E-mail:plantimports@mpi.govt.nzWebsite:http://www.mpi.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 is a specific species requires a CITES import permit, please contact the Department of Conservation (<u>http://www.doc.govt.nz</u>).

# 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.mpi.govt.nz/importing/plants/nursery-stock/forms-and-templates/ 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 "<u>Biosecurity Organisms</u> <u>Register for Imported Commodities</u>".

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  $(g/m^3)$  and temperature (°C):

Rate (g/m <sup>3</sup> )	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	Tebufenozide	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

### <u>Mites</u>

One of the following two treatments is required:

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

### OR

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

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 (°C):

Rate (g/m <sup>3</sup> )	Temperature (°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°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°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 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 (°C) prescribed for insects above.

### OR

(2) Actellic room fumigation: 10 cc Actellic/10m3 of room capacity for 12 hours at 20°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°C for 2 hours, followed by immersion in hot water at a constant temperature of 45°C for 3 hours (period required at the stated temperatures excluding warm-up times).

### OR

(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.

Active ingredient	Dip time	Notes
Abamectin (0.009 g per litre of dip/spray)	2-5 mins	Non-ionic surfactant required for dipping
Dicofol	2-5 mins	
Acephate (0.75 g per litre of dip/spray)	2-5 mins	Non-dormant material only
Chlorpyrifos (2.4 g per litre of dip/ spray)	2-5 mins	Non-ionic surfactant required for dipping
Dimethoate	2-5 mins	Non-dormant material only
Pirimiphos-methyl (0.475 g per litre of din/spray)	2-5 mins	Non-ionic surfactant required for dipping
	Abamectin (0.009 g per litre of dip/spray) Dicofol Acephate (0.75 g per litre of dip/spray) Chlorpyrifos (2.4 g per litre of dip/ spray) Dimethoate	Abamectin (0.009 g per litre of dip/spray)2-5 minsDicofol2-5 minsAcephate (0.75 g per litre of dip/spray)2-5 minsChlorpyrifos (2.4 g per litre of dip/ spray)2-5 minsDimethoate2-5 minsPirimiphos-methyl (0.475 g per litre of2-5 mins

### **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<sup>3</sup>) and temperature (°C) prescribed for insects above; OR Hot water treatment: immersion in hot water at a constant temperature of 24°C for 2 hours, followed by immersion in hot water at a constant temperature of 45°C for 4 hours (period required at the stated temperatures excluding warm-up times).

### AND

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

### <u>Fungi</u>

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)

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

- Protea
- Prunus
- Punica
- Quercus
- Schizolobium
- Schotia
- Spathodea
- Styrax
- Syngonium
- Tilia
- Ulmus
- Xanthosoma

#### i) For countries recognised 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)"

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

- Populus

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:

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	Tajkistan	
Japan	North Korea	Thailand	

### a) For dormant bulbs:

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:

- 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 3B 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	5 mins	
litre of dip/spray)		
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

• Eucalyptus Fagus •

• Gaultheria

• *Lithocarpus* 

All species of the following genera must meet the requirements for Phytophthora ramorum

• Fuchsia

• Kalmia

• Populus

• Olea • Photinia

- Aesculus
- Arbutus • Berberis
- Carpinus
- Castanea
- Corylus

• Alnus

• Annona Betula

• Buddleja

• Ceratonia

• Chimaphila

• Choisva

• Cistus

• Citrus

• Clematis

• Corylopsis

• Distylium

Empetrum

• Cornus

• Chamaecyparis

• Celtis

• Cercis

Cotoneaster

*identified in this section:* 

- Erica
- Garrva
  - Gevuina
  - Grevillea
  - Ilex
  - Hedera
  - *Hydrangea*

  - Liriodendron
  - Loropetalum

  - •
  - Picea
  - Pistacia
  - Ribes

Robinia

• Prunus

• Rubus Salix

• Ulmus

• Vaccinium

• Viburnum

•

• Pseudotsuga

Rhododendron

**Ouercus** 

- *Rosa* cultivar Pink Meidiland
- *Rosa* cultivar Pink Sevillana
- *Rosa* cultivar Royal Bonica
- Rosa gymnocarpa
- Rosa rugosa
- Rosa sempervirens
- Sambucus
- Tilia
- Zenobia
- Tsuga

- Larix

- Mahonia
- Manglietia

- - Nerium
- - Malus

### 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*"

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*

# The following measures only apply to nursery stock (whole plants, cuttings and dormant bulbs) identified within the schedule of special conditions as hosts of Xylella fastidiosa.

• There is a CTO direction (CTOPlants: 2016004) in place for all nursery stock from Costa Rica.

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

All phytosanitary certificates must be endorsed with the following additional declaration:

# "The plants in this consignment have only been grown in, and exported from, the country of origin [*insert country name*], which is free from *Xylella fastidiosa*"

### ii) For all other countries

'1. Additional declaration' AND '2. Pre-determined testing in post entry quarantine' must be met for nursery stock imported under this option.

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

### 1. Additional declaration:

All phytosanitary certificates must be endorsed with the following additional declaration:

# "The plants in this consignment have only been grown in, and exported from, a "Pest free area" [*insert area name*] or "Pest free place of production" [*insert place name*], which is free from *Xylella fastidiosa*".

### 2. Pre-determined testing in post entry quarantine:

**PEQ:** Level 2 (unless a higher level of PEQ is required in the schedule of special conditions)

### Minimum period: 6 months

The plants must be tested for *Xylella fastidiosa* during the PEQ period, at an MPI approved diagnostic facility, as described below:

- The minimum PEQ period will be 6 months, as this is the time required to complete growing inspections and testing for *Xylella fastidiosa*. For example:
  - For schedules which identify a minimum period of 3 months, the minimum PEQ period will be extended to 6 months
  - For schedules with a minimum period longer than 6 months, the longer period will apply.
- Samples must be collected and tested at the end of the summer (or 'summer-like') period;
  - The unit for testing is defined in section 2.3.2.1 "Pre-determined testing"
  - Plants shall be sampled from at least four positions; including a minimum of two young, fully expanded leaves at the top of the stem and two older leaves from a midway position
  - The samples must be tested by PCR for *Xylella fastidiosa*
  - All samples must test negative

### iii) For nursery stock sourced from MPI approved offshore facilities

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

#### Guidance:

The following countries are not recognised by MPI as free from *Xylella fastidiosa*:

- All countries in Europe, the America's and the Caribbean
- Asia: India, Taiwan
- Near East: Iran

The full list of countries which are not recognised by MPI as free from *Xylella fastidiosa* can be viewed on the website: *Xylella fastidiosa* 

### 2.2.1.13 Measures for *Phellinus noxius*

The following measures only apply to whole plants including rooted cuttings (not dormant bulbs or unrooted cuttings), identified within the schedule of special conditions as hosts of Phellinus noxius

### i) For countries recognised by MPI as free from *Phellinus noxius*

The following Additional Declaration must be endorsed on the phytosanitary certificate:

"The plants have been sourced from a country free from Phellinus noxius"

### ii) For all other countries

One of the following additional declarations must be endorsed on the phytosanitary certificate:

a) "The plants were raised from seed/cuttings in soil-less rooting media in containers maintained our of contact with the soil"

### OR, for areas approved by MPI

b) "The plants have been sourced from a "Pest free area", [*insert area name*], free from *Phellinus noxius*".

### Guidance:

Countries where *Phellinus noxius* is known to be present:

- <u>Africa:</u> Angola, Benin, Burkina, Cameroon, Central African Republic, Cote d'Ivoire Democratic Republic of Congo, Faso, Gabon, Ghana, Kenya, Liberia, Nigeria, Sierra Leone, Tanzania, Togo, Uganda
- <u>Asia:</u> Andaman Islands, China, Islands of China, East Indies, India, Indonesia, Islands of Japan, Malay Peninsula, Malaysia, Myanmar, Nicobar Islands, Pakistan, Philippines, Singapore, Sri Lanka, Taiwan, Vietnam
- Central America & Caribbean: Brazil, Costa Rica, Cuba
- <u>Oceania:</u> American Samoa, Australia (NSW, Queensland), Fiji, Mariana Islands, New Guinea, Papua New Guinea, Samoa, Vanuatu

### 2.2.1.14 Post-Entry Quarantine

Following arrival in New Zealand all nursery stock, unless specified in the schedules of special entry conditions, must undergo a period of post entry quarantine (PEQ) in order to check for the presence of regulated pests and/or diseases.

PEQ will be carried out in a transitional facility registered in accordance with the Facility Standard: Post Entry Quarantine for Plants (MPI.STD.PEQ). The nursery stock must be actively growing throughout the quarantine period. The quarantine period:

- Will be a minimum of 3 months for species with a nursery stock import specification of 'L2 (Basic)' as indicated in the Plants Biosecurity Index (PBI); or
- Will be the minimum period stated in the schedule of special entry conditions

The quarantine period may be extended if material is slow growing, pests and diseases are detected, testing 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: <u>http://www.mpi.govt.nz/news-and-resources/resources/registers-and-lists/post-entry/</u>

# 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 required when the schedule of special conditions states that:

- An import permit is a required document;
- The cultures require a period of growth in post entry quarantine;
- The cultures must meet the requirements of section 2.2.2.5 "Measures for *Xylella fastidiosa* on tissue culture" **and** the tissue cultures will be imported under section 2.2.2.5 part ii (requiring PEQ and pre-determined testing).

### 2.2.2.5 Measures for *Xylella fastidiosa* on tissue culture

The following measures only apply to nursery stock (tissue cultures) identified within the schedule of special conditions as hosts of Xylella fastidiosa.

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

**OPTION 1:** Both the tissue cultures AND the mother plants have only been grown in the country of origin, AND this can be certified by the exporting NPPO. All phytosanitary certificates must be endorsed with the following additional declaration:

"The tissue cultures/plants in-vitro in this consignment, and the plants they were derived from, have only been grown in the country of origin, [insert country name], which is free from *Xylella fastidiosa*".

**Note:** PEQ is not required for tissue cultures imported under this option, unless PEQ is a requirement of the schedule of special entry conditions.

# **OPTION 2:** The country of origin of the mother plants is <u>not</u> the same as the country of origin of the tissue cultures.

The tissue cultures must meet the requirements for tissue cultures from all other countries.

### ii) For all other countries

'1. Additional declaration' AND '2. Pre-determined testing in post entry quarantine' must be met for tissue cultures imported under this option.

### 1. Additional declaration:

All phytosanitary certificates must be endorsed with the following additional declaration:

"The tissue cultures/plants in-vitro in this consignment, and the plants they were derived from, have only been grown in a "Pest free area" [insert area name] or "Pest free place of production" [insert place name], which is free from *Xylella fastidiosa*".

### 2. Pre-determined testing in post entry quarantine:

**PEQ:** Level 2 (unless a higher level of PEQ is required in the schedule of special conditions)

Minimum period: 6 months (in the PEQ greenhouse)

The plants must be tested for *Xylella fastidiosa* during the PEQ period, at an MPI approved diagnostic facility, as described below:

- The minimum PEQ period will be 6 months, as this is the time required to complete growing season inspections and testing for *Xylella fastidiosa*. For example:
  - For schedules which identify a minimum period of 3 months, the minimum PEQ period will be extended to 6 months
  - For schedules with a minimum period longer than 6 months, the longer period will apply.
- Samples must be collected and tested at the end of the summer (or 'summer-like') period;
  - The unit for testing is defined in section 2.3.2.1 "Pre-determined testing".
  - Plants shall be sampled from at least four positions; including a minimum of two young, fully expanded leaves at the top of the stem and two older leaves from a midway position.
  - The samples must be tested by PCR for Xylella fastidiosa
  - All samples must test negative

### iii) For nursery stock sourced from MPI approved offshore facilities

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

#### Guidance:

The following countries are not recognised by MPI as free from Xylella fastidiosa:

- All countries in Europe, the America's and the Caribbean
- Asia: India, Taiwan
- Near East: Iran

The full list of countries which are not recognised by MPI as free from *Xylella fastidiosa* can be viewed on the website: *Xylella fastidiosa* 

### 2.2.2.6 Post-Entry Quarantine for tissue cultures

Tissue cultures only require a period of post entry quarantine in order to check for the presence of regulated pests and/or diseases when the schedule of special conditions states:

- The cultures require a period of growth in post entry quarantine; AND/OR
- The cultures must meet the requirements of section 2.2.2.5 "Measures for *Xylella fastidiosa* on tissue culture" **and** will be imported under section 2.2.2.5 part ii (requiring PEQ and pre-determined testing).

Post entry quarantine will be carried out in a transitional facility registered in accordance with the Facility Standard: Post Entry Quarantine for Plants (MPI.STD.PEQ). The nursery stock must be actively growing throughout the quarantine period. The quarantine period:

- Will be the minimum period stated in the schedule of special entry conditions, which may be extended if pre-determined testing is required.
- May be extended if material is slow growing, pests and diseases are detected, testing or treatments required.

Tissue cultures must be deflasked into a PEQ greenhouse for the completion of growing season inspections and testing, unless the schedule of special conditions states that they must be held in a PEQ Tissue culture laboratory:

- For tissue cultures that must be held in a PEQ Tissue culture laboratory for the duration of the PEQ period, the quarantine period will begin when the plants arrive at the PEQ facility and are held under the conditions specified in the schedule of special conditions (e.g. temperature requirements). Sub-culturing during the PEQ period must <u>not</u> occur.
- For tissue cultures that must be grown in a PEQ greenhouse, the quarantine period will begin when the plants are deflasked in the greenhouse. Prior to deflasking tissue cultures into the PEQ greenhouse, individual imported tissue culture plantlets may be sub-cultured to enable multiplication of tissue-cultured plant material during the PEQ period, as described below.
  - At least one sub-culture must be developed to the stage where it can be deflasked and transferred to the glasshouse for the completion of growing season inspections and testing. In cases where only one culture is obtained from the first round of subculturing, a culture for deflasking must be taken during the first appropriate multiplication. Traceability must be maintained to the individual imported tissue culture plantlet.
  - Other subcultures derived from the same individual imported tissue culture plantlet may be kept in culture at a PEQ Tissue culture laboratory, and may be multiplied further during the PEQ period. The level of PEQ Tissue culture laboratory must be the same (or higher) as that required for the greenhouse plants; however, a Level 3 tissue culture laboratory is suitable for species which require either a Level 3A or 3B PEQ greenhouse. Provided traceability to the individual imported tissue culture plantlet (and greenhouse plant) is maintained, this progeny may also be given biosecurity clearance.

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

# 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.

Visual inspection of 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.

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 labelling 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 Diagnostic Facility Standard 155.04.03: A standard for diagnostic facilities which undertake the identification of new organisms, excluding animal pathogens 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 predetermined 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 reexport; 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 a specified Level of PEQ (e.g. L1, L2, L3, L3A, L3B)
- 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: <u>http://mpi.govt.nz/news-and-resources/resources/registers-and-lists/offshore/</u>

# 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 <u>Plants Biosecurity Index</u> will be continuously updated on MPI's website:

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 MPI 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 capsici; Phytophthora ramorum*, Uredinales

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

A. For Whole PlantsPEQ: Level 3BMinimum 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.

<sup>1</sup>Implementation of measures:

For consignments with a phytosanitary certificate issued no later than <u>24 May 2018</u>, the requirements for *Phytophthora capsici* are not mandatory.

For consignments with a phytosanitary certificate issued <u>on or after 25 May 2018</u> the requirements for *Phytophthora capsici* <u>must</u> be met.

**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; Phellinus noxius; Phytophthora capsici; Phytophthora palmivora; Phytophthora ramorum; Phytophthora tentaculata; 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 *Ceratocystis fimbriata* (section 2.2.1.8) Note: Only applies to members of the *Acacia* and *Passiflora* genera
- b. Conditions for *Phytophthora capsici*<sup>1</sup> Note: Only applies to the following genus: *Portulaca*

One of the following Additional Declarations must be endorsed on the phytosanitary certificate:

"The [insert species name] plants in this consignment have been sourced from [insert country name], which is free from *Phytophthora capsici*".

### OR

"The [insert species name] plants in this consignment were produced in a "pest free area" for *Phytophthora capsici*".

### OR

"The [insert species name] plants in this consignment were produced in a "pest free place of production" for *Phytophthora capsici*".

c. Conditions for *Phytophthora palmivora*<sup>1</sup> Note: Only applies to the following genus: *Rosmarinus* 

One of the following Additional Declarations must be endorsed on the phytosanitary certificate:

"The [insert species name] plants in this consignment have been sourced from [insert country name], which is free from *Phytophthora palmivora*".

### OR

"The [insert species name] plants in this consignment were produced in a "pest free area" for *Phytophthora palmivora*".

OR

"The [insert species name] plants in this consignment were produced in a "pest free place of production" for *Phytophthora palmivora*".

d. Conditions for Phytophthora ramorum (section 2.2.1.11) Note: Only applies to the following species: *Veronica spicata*  e. Conditions for *Phytophthora tentaculata*<sup>1</sup>

Note: Only applies to the following genera: Artemisia and Mimulus

One of the following Additional Declarations must be endorsed on the phytosanitary certificate:

"The [insert species name] plants in this consignment have been sourced from [insert country name], which is free from *Phytophthora tentaculata*". **OR** 

"The [insert species name] plants in this consignment were produced in a "pest free area" for *Phytophthora tentaculata*".

OR

"The [insert species name] plants in this consignment were produced in a "pest free place of production" for *Phytophthora tentaculata*".

- f. Conditions for *Xylella fastidiosa* (section 2.2.1.12)
   Guidance for importers: The minimum quarantine period will be <u>6 months</u> for nursery stock sourced from countries <u>not</u> recognised by MPI as free from *Xylella fastidiosa*
- g. Conditions for *Phellinus noxius* (section 2.2.1.13)
   Note: Only applies to the following species: *Artemisia capillaris; Artemisia princeps; Duranta repens; Nerium oleander;* and applies to all members of the *Acacia* genus

### **B. For Cuttings 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 *Phytophthora ramorum* (section 2.2.1.11) Note: Only applies to the following species: *Veronica spicata*
- c. Conditions for *Xylella fastidiosa* (section 2.2.1.12)
   Guidance for importers: The minimum quarantine period will be <u>6 months</u> for nursery stock sourced from countries <u>not</u> recognised by MPI as free from *Xylella fastidiosa*

### C. For Tissue Culture

 a. Conditions for *Xylella fastidiosa* on tissue culture (section 2.2.2.5)
 Guidance for importers: There will be a minimum quarantine period of <u>6 months in a Level 2 PEQ</u> greenhouse, for tissue cultures from countries <u>not</u> recognised by MPI as free from *Xylella fastidiosa*.

<sup>1</sup>Implementation of measures:

For consignments with a phytosanitary certificate issued <u>on or after 25 May 2018</u> the requirements for *Phytophthora capsici*, *P. palmivora* and *P. tentaculata* <u>must</u> be met.

For consignments with a phytosanitary certificate issued no later than <u>24 May 2018</u>, the requirements for *Phytophthora capsici*, *P. palmivora* and *P. tentaculata* are not mandatory.

**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 palmivora; 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 palmivora*<sup>1</sup>

One of the following Additional Declarations must be endorsed on the phytosanitary certificate:

"The [insert species name] plants in this consignment have been sourced from [insert country name], which is free from *Phytophthora palmivora*".

#### OR

"The [insert species name] plants in this consignment were produced in a "pest free area" for *Phytophthora palmivora*".

OR

"The [insert species name] plants in this consignment were produced in a "pest free place of production" for *Phytophthora palmivora*".

- b. Conditions for Phytophthora ramorum (section 2.2.1.11), and
- c. Conditions for *Xylella fastidiosa* (section 2.2.1.12), and **Guidance for importers**: The minimum quarantine period will be <u>6 months</u> for nursery stock sourced from countries <u>not</u> recognised by MPI as free from *Xylella fastidiosa*
- d. Conditions for *Cryphonectria parasitica* <u>Additional Declaration</u>: "*Cryphonectria parasitica* is not known to occur in \_\_\_\_\_\_ (the country or state where the plants/cuttings were produced)".

### OR PEQ: Level 3B Minimum Period: 6 months

a. Conditions for Xylella fastidiosa (section 2.2.1.12)

#### **B.** For Tissue Culture

 a. Conditions for *Xylella fastidiosa* on tissue culture (section 2.2.2.5)
 Guidance for importers: There will be a minimum quarantine period of <u>6 months in a Level 2 PEQ</u> greenhouse, for tissue cultures from countries <u>not</u> recognised by MPI as free from *Xylella fastidiosa*.

<sup>1</sup>Implementation of measures:

For consignments with a phytosanitary certificate issued on or after 25 May 2018 the requirements for *Phytophthora* palmivora must be met.

For consignments with a phytosanitary certificate issued no later than <u>24 May 2018</u>, the requirements for *Phytophthora* palmivora are not mandatory.

**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, Phytophthora palmivora, Phellinus noxius, Xylella fastidiosa

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

A. For Whole Plants and Cuttings 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. Conditions for *Xylella fastidiosa* (section 2.2.1.12)
   Note: Only applies to members of the *Phoenix* genus
   Guidance for importers: The minimum quarantine period will be <u>6 months</u> for nursery stock sourced from countries <u>not</u> recognised by MPI as free from *Xylella fastidiosa*
- c. Conditions for *Phellinus noxius* (section 2.2.1.13)
   Note: Only applies to the following species: Areca catechu; Areca triandra; Chrysalidocarpus lutescens; Coco nucifera; Elaeis guineensis; Roystonea regia

#### b. Conditions for *Phytophthora palmivora*<sup>1</sup>

**Note:** Only applies to the following genera: Archontophoenix, Areca, Bactris, Borassus, Chamaedorea, Chrysalidocarpus, Cocos, Elaeis, Howea, Livistona, Rhopalostylis, Sabal, Syagrus, Trachycarpus and Washingtonia

One of the following Additional Declarations must be endorsed on the phytosanitary certificate:

"The [insert species name] plants in this consignment have been sourced from [insert country name], which is free from *Phytophthora palmivora*".

OR

"The [insert species name] plants in this consignment were produced in a "pest free area" for *Phytophthora palmivora*".

#### OR

"The [insert species name] plants in this consignment were produced in a "pest free place of production" for *Phytophthora palmivora*".

#### d. Additional Declaration:

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

#### A. For Tissue Cultures PEQ: Level 2 Minimum Period: 3 months

- a. Conditions for *Xylella fastidiosa* on tissue culture (section 2.2.2.5)
   Note: Only applies to members of the *Phoenix* genus
   Guidance for importers: The minimum quarantine period will be <u>6 months</u> for tissue cultures sourced from countries <u>not</u> recognised by MPI as free from *Xylella fastidiosa*
- b. Additional Declaration:
   "Cadang cadang and lethal yellowing are not known to occur in \_\_\_\_\_(the country or state where the plants were grown) \_\_\_\_\_".

<sup>1</sup>Implementation of measures:

For consignments with a phytosanitary certificate issued no later than <u>24 May 2018</u>, the requirements for *Phytophthora* palmivora are not mandatory.

For consignments with a phytosanitary certificate issued on or after 25 May 2018 the requirements for *Phytophthora palmivora* must be met.

**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 **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:** *Phellinus noxius, Phytophthora palmivora, Phytophthora ramorum, Phytophthora tentaculata, 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 *Phytophthora palmivora*<sup>1</sup> **Note:** Only applies to the following genus: *Syringa* 

One of the following Additional Declarations must be endorsed on the phytosanitary certificate:

"The [insert species name] plants in this consignment have been sourced from [insert country name], which is free from *Phytophthora palmivora*".

#### OR

"The [insert species name] plants in this consignment were produced in a "pest free area" for *Phytophthora palmivora*".

#### OR

"The [insert species name] plants in this consignment were produced in a "pest free place of production" for *Phytophthora palmivora*".

- b. Conditions for *Phytophthora ramorum* (section 2.2.1.11)
- c. Conditions for *Phytophthora tentaculata*<sup>1</sup> **Note:** Only applies to the following genera: *Heteromeles* and *Rhamnus*

The only applies to the following general. The connects and informations

One of the following Additional Declarations must be endorsed on the phytosanitary certificate:

"The [insert species name] plants in this consignment have been sourced from [insert country name], which is free from *Phytophthora tentaculata*".

#### OR

"The [insert species name] plants in this consignment were produced in a "pest free area" for *Phytophthora tentaculata*".

#### OR

"The [insert species name] plants in this consignment were produced in a "pest free place of production" for *Phytophthora tentaculata*".

d. Conditions for *Xylella fastidiosa* (section 2.2.1.12)
 Guidance for importers: The minimum quarantine period will be <u>6 months</u> for nursery stock sourced from countries <u>not</u> recognised by MPI as free from *Xylella fastidiosa*

e. Conditions for *Phellinus noxius* (section 2.2.1.13) **Note:** Only applies to the following species: *Fraxinus griffithii; Rhus succedanea* 

# B. For CuttingsPEQ: Level 2Minimum Period: 3 months

a. Conditions for *Phytophthora palmivora*<sup>1</sup> **Note:** Only applies to the following genus: *Syringa* 

One of the following Additional Declarations must be endorsed on the phytosanitary certificate:

"The [insert species name] plants in this consignment have been sourced from [insert country name], which is free from *Phytophthora palmivora*".

OR

"The [insert species name] plants in this consignment were produced in a "pest free area" for *Phytophthora palmivora*".

OR

"The [insert species name] plants in this consignment were produced in a "pest free place of production" for *Phytophthora palmivora*".

- b. Conditions for *Phytophthora ramorum* (section 2.2.1.11)
- c. Conditions for *Phytophthora tentaculata*<sup>1</sup> **Note:** Only applies to the following genera: *Heteromeles* and *Rhamnus*

One of the following Additional Declarations must be endorsed on the phytosanitary certificate:

"The [insert species name] plants in this consignment have been sourced from [insert country name], which is free from *Phytophthora tentaculata*".

#### OR

"The [insert species name] plants in this consignment were produced in a "pest free area" for *Phytophthora tentaculata*".

#### OR

"The [insert species name] plants in this consignment were produced in a "pest free place of production" for *Phytophthora tentaculata*".

Conditions for *Xylella fastidiosa* (section 2.2.1.12)
 Guidance for importers: The minimum quarantine period will be 6 months for nursery stock sourced from countries not recognised by MPI as free from *Xylella fastidiosa*

# C. For Tissue Cultures

 a. Conditions for *Xylella fastidiosa* on tissue culture (section 2.2.2.5)
 Guidance for importers: There will be a minimum quarantine period of <u>6 months in a Level 2 PEQ</u> greenhouse, for tissue cultures from countries <u>not</u> recognised by MPI as free from *Xylella fastidiosa*.

<sup>1</sup>Implementation of measures:

For consignments with a phytosanitary certificate issued <u>on or after 25 May 2018</u> the requirements for *Phytophthora palmivora* and *P. tentaculata* <u>must</u> be met.

For consignments with a phytosanitary certificate issued no later than <u>24 May 2018</u>, the requirements for *Phytophthora* palmivora and *P. tentaculata* are not mandatory.

**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)."

#### AND

- One of the following Additional Declarations for *Phytophthora capsici* and *P. palmivora*<sup>1</sup>:

"The [insert species name] plants in this consignment have been sourced from [insert country name], which is free from *Phytophthora capsici* and *P. palmivora*".

#### OR

"The [insert species name] plants in this consignment were produced in a "pest free area" for *Phytophthora capsici* and *P. palmivora*".

#### OR

"The [insert species name] plants in this consignment were produced in a "pest free place of production" for *Phytophthora capsici* and *P. palmivora*".

#### (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) <u>Special tissue culture media requirements</u>

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.

#### <sup>1</sup>Implementation of measures:

For consignments with a phytosanitary certificate issued <u>on or after 25 May 2018</u> the requirements for *Phytophthora capsici* and *P. palmivora* <u>must</u> be met.

For consignments with a phytosanitary certificate issued no later than <u>24 May 2018</u>, the requirements for *Phytophthora* capsici and *P. palmivora* are not mandatory.

# Pest List for Allium

# **REGULATED PESTS (actionable)**

Insect	
Insecta	
Coleoptera	
Curculionidae	
Brachycerus muricatus	weevil
Brachycerus undatus	weevil
Ceutorhynchus jakovlevi	onion weevil
Nitidulidae	
Carpophilus obsoletus	dried fruit beetle
Diptera	
Anthomyiidae	
Delia antiqua	onion maggot
Delia florilega	onion fly
Heleomyzidae	
Suillia lurida	garlic fly
Suillia univittata	-
Syrphidae	
Eumerus amoenus	onion bulb fly
Lepidoptera	
Cossidae	
Dyspessa ulula	garlic moth
Yponomeutidae	
Acrolepia alliella	-
Acrolepia sapporensis	allium leafminer
Acrolepiopsis assectella	leek moth
Thysanoptera	
Thripidae	
Thrips tabaci [vector]	onion thrips
Mite	
Arachnida	
Acarina	
Acaridae	
Rhizoglyphus setosus	bulb mite
Eriophyidae	bulo linte
Aceria tulipae [vector]	wheat curl mite
1	whole curr nine
Nematode	
Adenophorea	
Dorylaimida	
Longidoridae	
Paralongidorus maximus	-
Trichodoridae	
Paratrichodorus allius	stubby root nematode
Paratrichodorus minor [vector]	stubby root nematode
Paratrichodorus teres	stubby root nematode
Secernentea	
Tylenchida	
Aphelenchoididae	
Aphelenchoides besseyi	rice white-tip nematode
Aphelenchoides parietinus	-
Belonolaimidae	
Belonolaimus gracilis	sting nematode
Hoplolaimidae	
Helicotylenchus indicus	sprial nematode
Helicotylenchus microlobus	spiral nematode
Helicotylenchus multicinctus	spiral nematode

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

**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".

#### AND

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

#### **B.** For Tissue Cultures

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

# Anemone

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

#### **GENERAL CONDITIONS:**

**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. **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

#### Quarantine Pests: Phytophthora capsici, Ralstonia pseudosolanacearum

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

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

a. Conditions for Phytophthora capsici

One of the following Additional Declarations must be endorsed on the phytosanitary certificate:

"The [insert species name] plants in this consignment have been sourced from [insert country name], which is free from *Phytophthora capsici*".

#### OR

"The [insert species name] plants in this consignment were produced in a "pest free area" for *Phytophthora capsici*".

#### OR

"The [insert species name] plants in this consignment were produced in a "pest free place of production" for *Phytophthora capsici*".

# b. Conditions for Ralstonia pseudosolanacearum

Note: Only applies to the following genera: Anthurium

One of the following Additional Declarations must be endorsed on the phytosanitary certificate:

The (insert plant species) plants were sourced from a pest free area, free from *Ralstonia pseudosolanacearum*)'.

#### OR

'The (insert plant species) plants have been sourced from a 'pest free place of production', where parent plants were tested according to an NPPO approved methodology and found free from *Ralstonia pseudosolanacearum*'.

#### **B.** For Tissue Culture

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

#### Conditions for Ralstonia pseudosolanacearum

Note: Only applies to the following genera: Anthurium

One of the following Additional Declarations must be endorsed on the phytosanitary certificate:

'The (insert plant species) plants were sourced from a pest free area, free from *Ralstonia pseudosolanacearum*)'

#### OR

'The (insert plant species) plants have been sourced from a 'pest free place of production', where parent plants were tested according to an NPPO approved methodology and found free from *Ralstonia pseudosolanacearum*'.

# C. For Whole Plants, Cuttings or Tissue cultures imported into a level 3A PEQ facility

Note: Only applies to the following genera: Anthurium

#### **PEQ:** Level 3A **Minimum Period:** 3 months

i) Conditions for *Ralstonia pseduosolanacearum* Pre-determined testing in PEQ; refer to "Inspection, Testing and Treatment Requirements for *Anthurium*"

# Inspection, Testing and Treatment Requirements for Anthurium

ORGANISM	MPI ACCEPTABLE METHODS	Comments
Insects	Visual inspection AND approved	Applies to whole plants and
	insecticide treatments as described in	cuttings only
	section 2.2.1.6 of the Basic conditions	
Mites	Visual inspection AND approved	Applies to whole plants and
	miticide treatments as described in the	cuttings only
	section 2.2.1.6 of the Basic conditions	
Bacterium		
Ralstonia	Growing season inspection in PEQ for	Applies to Anthurium whole
pseudosolanacearum	symptom expression AND plating on	plants, cuttings, and tissue
	selective media OR PCR	culture imported into a level
		3A PEQ facility

**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

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

#### **GENERAL CONDITIONS:**

#### Approved Countries: All

Quarantine Pests: Phellinus noxius, Phytophthora capsici, Phytophthora palmivora

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 *Phellinuis noxius* (section 2.2.1.13)
- b. Conditions for *Phytophthora capsici*<sup>1</sup> **Note:** Only applies to the following genus: *Piper*

One of the following Additional Declarations must be endorsed on the phytosanitary certificate:

"The [insert species name] plants in this consignment have been sourced from [insert country name], which is free from *Phytophthora capsici*".

#### OR

"The [insert species name] plants in this consignment were produced in a "pest free area" for *Phytophthora capsici*".

#### OR

"The [insert species name] plants in this consignment were produced in a "pest free place of production" for *Phytophthora capsici*".

c. Conditions for Phytophthora palmivora<sup>1</sup>

**Note:** Only applies to the following genera: *Aleurites, Anacardium, Annona, Azadirachta, Bougainvillea, Pachira* and *Piper* 

One of the following Additional Declarations must be endorsed on the phytosanitary certificate:

"The [insert species name] plants in this consignment have been sourced from [insert country name], which is free from *Phytophthora palmivora*".

#### OR

"The [insert species name] plants in this consignment were produced in a "pest free area" for *Phytophthora palmivora*".

#### OR

"The [insert species name] plants in this consignment were produced in a "pest free place of production" for *Phytophthora palmivora*".

#### **B. For Cuttings PEQ:** Level 2 **Minimum Period:** 3 months

a. Conditions for *Phytophthora capsici*<sup>1</sup> **Note:** Only applies to the following genus: *Piper* 

One of the following Additional Declarations must be endorsed on the phytosanitary certificate:

"The [insert species name] plants in this consignment have been sourced from [insert country name], which is free from *Phytophthora capsici*".

#### OR

"The [insert species name] plants in this consignment were produced in a "pest free area" for *Phytophthora capsici*".

#### OR

"The [insert species name] plants in this consignment were produced in a "pest free place of production" for *Phytophthora capsici*".

b. Conditions for *Phytophthora palmivora*<sup>1</sup>

**Note:** Only applies to the following genera: *Aleurites, Anacardium, Annona, Azadirachta, Bougainvillea, Pachira* and *Piper* 

One of the following Additional Declarations must be endorsed on the phytosanitary certificate:

"The [insert species name] plants in this consignment have been sourced from [insert country name], which is free from *Phytophthora palmivora*".

#### OR

"The [insert species name] plants in this consignment were produced in a "pest free area" for *Phytophthora palmivora*".

#### OR

"The [insert species name] plants in this consignment were produced in a "pest free place of production" for *Phytophthora palmivora*".

#### **C. For Tissue Cultures**

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

<sup>1</sup>Implementation of measures:

For consignments with a phytosanitary certificate issued no later than <u>24 May 2018</u>, the requirements for *Phytophthora capsici* and *P. palmivora* are not mandatory.

For consignments with a phytosanitary certificate issued <u>on or after 25 May 2018</u> the requirements for *Phytophthora capsici* and *P. palmivora* <u>must</u> be met.

**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:** *Phellinus noxius, Phytophthora palmivora, Phytophthora ramorum, Phytophthora tentacula, 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 *Phytophthora palmivora*<sup>1</sup> **Note:** Only applies to the following genus: *Magnolia* 

One of the following Additional Declarations must be endorsed on the phytosanitary certificate:

"The [insert species name] plants in this consignment have been sourced from [insert country name], which is free from *Phytophthora palmivora*".

#### OR

"The [insert species name] plants in this consignment were produced in a "pest free area" for *Phytophthora palmivora*".

# OR

"The [insert species name] plants in this consignment were produced in a "pest free place of production" for *Phytophthora palmivora*".

- b. Conditions for Phytophthora ramorum (section 2.2.1.11)
- c. Conditions for *Phytophthora tentaculata*<sup>1</sup> **Note:** Only applies to the following genus: *Ceanothus*

One of the following Additional Declarations must be endorsed on the phytosanitary certificate:

"The [insert species name] plants in this consignment have been sourced from [insert country name], which is free from *Phytophthora tentaculata*".

```
OR
```

"The [insert species name] plants in this consignment were produced in a "pest free area" for *Phytophthora tentaculata*".

OR

"The [insert species name] plants in this consignment were produced in a "pest free place of production" for *Phytophthora tentaculata*".

d. Conditions for *Xylella fastidiosa* (section 2.2.1.12)
 Note: Only applies to the members of the *Laurus* and *Magnolia* genera
 Guidance for importers: The minimum quarantine period will be <u>6 months</u> for nursery stock sourced from countries <u>not</u> recognised by MPI as free from *Xylella fastidiosa*

e. Conditions for *Phellinus noxius* (section 2.2.1.13) **Note**: Applies to the following species: *Michelia compressa; Michelia figo; Osmanthus fragans*; and applies to all members of the *Cinnamonum* genus

#### **B.** For Cuttings

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

> a. Conditions for *Phytophthora palmivora*<sup>1</sup> **Note:** Only applies to the following genus: *Magnolia*

One of the following Additional Declarations must be endorsed on the phytosanitary certificate:

"The [insert species name] plants in this consignment have been sourced from [insert country name], which is free from *Phytophthora palmivora*".

OR

"The [insert species name] plants in this consignment were produced in a "pest free area" for *Phytophthora palmivora*".

#### OR

"The [insert species name] plants in this consignment were produced in a "pest free place of production" for *Phytophthora palmivora*".

- b. Conditions for *Phytophthora ramorum* (section 2.2.1.11)
- c. Conditions for *Phytophthora tentaculata*<sup>1</sup>

Note: Only applies to the following genus: Ceanothus

One of the following Additional Declarations must be endorsed on the phytosanitary certificate:

"The [insert species name] plants in this consignment have been sourced from [insert country name], which is free from *Phytophthora tentaculata*".

OR

"The [insert species name] plants in this consignment were produced in a "pest free area" for *Phytophthora tentaculata*".

#### OR

"The [insert species name] plants in this consignment were produced in a "pest free place of production" for *Phytophthora tentaculata*".

d. Conditions for *Xylella fastidiosa* (section 2.2.1.12)
 Note: Only applies to the members of the *Laurus* and *Magnolia* genera
 Guidance for importers: The minimum quarantine period will be <u>6 months</u> for nursery stock sourced from countries not recognised by MPI as free from *Xylella fastidiosa*

#### **C. For Tissue Cultures**

a. Conditions for *Xylella fastidiosa* on tissue culture (section 2.2.2.5)
 Note: Only applies to the members of the *Laurus* and *Magnolia* genera
 Guidance for importers: There will be a minimum quarantine period of <u>6 months in a Level 2 PEQ</u> greenhouse, for tissue cultures from countries <u>not</u> recognised by MPI as free from *Xylella fastidiosa*.

<sup>1</sup>Implementation of measures:

For consignments with a phytosanitary certificate issued <u>on or after 25 May 2018</u> the requirements for *Phytophthora* palmivora and *P. tentaculata* <u>must</u> be met.

For consignments with a phytosanitary certificate issued no later than <u>24 May 2018</u>, the requirements for *Phytophthora* palmivora and *P. tentaculata* are not mandatory.

**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 Cultures:

**OPTION 1: PEQ:** Level 2 **Minimum Period**: 6 months

#### Additional Declarations:

- "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 3B Minimum Period: 3 months **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

Quarantine Pests: Phellinus noxius

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

**A. 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 *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 <u>other than</u> 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 *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; Xylella fastidiosa

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

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

a. Conditions for *Xylella fastidiosa* (section 2.2.1.12)
 Guidance for importers: The minimum quarantine period will be <u>6 months</u> for nursery stock sourced from countries <u>not</u> recognised by MPI as free from *Xylella fastidiosa*

**B. For Tissue Cultures PEQ**: Level 3B **Minimum Period**: 3 months

a. Conditions for *Xylella fastidiosa* on tissue culture (section 2.2.2.5)
 Guidance for importers: The minimum quarantine period will be <u>6 months</u> for tissue cultures sourced from countries <u>not</u> recognised by MPI as free from *Xylella fastidiosa*.

**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".

**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 Cultures** 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 <u>other than</u> 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 *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".

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

# **GENERAL CONDITIONS:**

# Approved Countries: All

Quarantine Pests: 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 *Xylella fastidiosa* (section 2.2.1.12)
   Guidance for importers: The minimum quarantine period will be <u>6 months</u> for nursery stock sourced from countries <u>not</u> recognised by MPI as free from *Xylella fastidiosa*
- b. Additional declaration: "The plants have been dipped in Furalaxyl at the rate of 0.25g a.i. per litre of water."

# **B.** For Tissue Cultures

 c. Conditions for *Xylella fastidiosa* on tissue culture (section 2.2.2.5)
 Guidance for importers: There will be a minimum quarantine period of <u>6 months in a Level 2 PEQ</u> greenhouse, for tissue cultures from countries <u>not</u> recognised by MPI as free from *Xylella fastidiosa*.

# 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: Demyrsus meleoides

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

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

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

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

# Caladium

**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. PEO: 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 <u>other than</u> 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:** *Phytophthora capsici, Phytophthora palmivora,* Uredinales, *Tetranychus kanzawai* 

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

A. For Whole PlantsPEQ: Level 2Minimum Period: 1 year

a. Additional declarations

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

#### AND

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

b. Conditions for *Phytophthora capsici*<sup>1</sup> **Note:** Only applies to the following genus: *Vanilla* 

One of the following Additional Declarations must be endorsed on the phytosanitary certificate:

"The [insert species name] plants in this consignment have been sourced from [insert country name], which is free from *Phytophthora capsici*".

#### OR

"The [insert species name] plants in this consignment were produced in a "pest free area" for *Phytophthora capsici*".

#### OR

"The [insert species name] plants in this consignment were produced in a "pest free place of production" for *Phytophthora capsici*".

c. Conditions for *Phytophthora palmivora*<sup>1</sup>

Note: Only applies to the following genera: *Epidendrum* and *Vanilla* 

One of the following Additional Declarations must be endorsed on the phytosanitary certificate:

"The [insert species name] plants in this consignment have been sourced from [insert country name], which is free from *Phytophthora palmivora*".

OR

"The [insert species name] plants in this consignment were produced in a "pest free area" for *Phytophthora palmivora*".

#### OR

"The [insert species name] plants in this consignment were produced in a "pest free place of production" for *Phytophthora palmivora*".

**B.** For Tissue Cultures

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

<sup>1</sup>Implementation of measures:

For consignments with a phytosanitary certificate issued on or after 25 May 2018 the requirements for *Phytophthora capsici* and *P. palmivora* must be met.

For consignments with a phytosanitary certificate issued no later than <u>24 May 2018</u>, the requirements for *Phytophthora capsici* and *P. palmivora* are not mandatory.

**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: Phellinus noxius, Phytophthora ramorum, Tetranychus kanzawai

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

A. For Whole Plants
PEQ: Level 2
Minimum Period: 3 months
Note: All visible flower buds are to be removed prior to export.
a. Conditions for *Phytophthora ramorum* (section 2.2.1.11)

- b. Conditions for *Phellinus noxius* (section 2.2.1.13) **Note:** Only applies to the following species: *Camellia japonica*
- c. Additional declaration: "The plants have been dipped in prochloraz at the rate of 0.5g a.i. per litre of water".

# **B.** For Cuttings

PEQ: Level 2

**Minimum Period:** 3 months **Note:** All visible flower buds are to be removed prior to export.

- 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. 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 Armenia Azerbaijan Bangladesh Bhutan Brunei Cambodia China	Iran Iraq Israel Japan Jordan Kazakstan Kuwait	Mongolia Myanmar Nepal North Korea Oman Pakistan Philippines Saudi Arabia	Syria Taiwan Tajkistan Thailand Turkey Turkmenistan United Arab Emirates Uzbekistan
	U	-	_	
	Bhutan	Jordan	Oman	•
	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, Phellinus noxius, Phloem necrosis, Phytophthora ramorum, Tetranychus kanzawai.* 

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

#### A. For Whole Plants PEQ: Level 3B Minimum Period: 3 months

- a. Conditions for *Phytophthora ramorum* (section 2.2.1.11)
- b. Conditions for *Phellinus noxius* (section 2.2.1.13)

#### **B. For Tissue Cultures PEQ**: Level 3B **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 and South Africa

#### **OPTION 1: No import permit is required. PEQ:** None

- a. Conditions for *Xylella fastidiosa* (see section 2.2.1.12) **Note:** Only nursery stock sourced from a country recognised by MPI as free from *Xylella fastidiosa* can be imported under this option.
- 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) For countries recognised as free from Xylella fastidiosa only)
 Note: Only nursery stock sourced from a country recognised by MPI as free from *Xylella fastidiosa* can be imported under this option.

#### 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) **Note:** Only nursery stock sourced from a country recognised by MPI as free from *Xylella fastidiosa* can be imported under this option.

- b. Treatment; 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
- c. 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."

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

a. Conditions for *Xylella fastidiosa* (see section 2.2.1.12)
 Guidance for importers: The minimum quarantine period will be <u>6 months</u> for nursery stock sourced from countries <u>not</u> recognised by MPI as free from *Xylella fastidiosa*

### **D.** For Tissue Cultures from All Countries

- a. Conditions for *Xylella fastidiosa* on tissue culture (section 2.2.2.5)
   Guidance for importers: There will be a minimum quarantine period of <u>6 months in a Level 2 PEQ</u> greenhouse, for tissue cultures from countries <u>not</u> recognised by MPI as free from *Xylella fastidiosa*.
- b. 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, Phytophthora capsici, Phytophthora palmivora

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

OPTION 1: A. For Whole Plants PEQ: Level 2 Minimum Period: 3 months

a. 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. Conditions for *Phytophthora capsici*<sup>1</sup>

One of the following Additional Declarations must be endorsed on the phytosanitary certificate:

"The [insert species name] plants in this consignment have been sourced from [insert country name], which is free from *Phytophthora capsici*".

OR

"The [insert species name] plants in this consignment were produced in a "pest free area" for *Phytophthora capsici*".

#### OR

"The [insert species name] plants in this consignment were produced in a "pest free place of production" for *Phytophthora capsici*".

c. Conditions for Phytophthora palmivora<sup>1</sup>

One of the following Additional Declarations must be endorsed on the phytosanitary certificate:

"The [insert species name] plants in this consignment have been sourced from [insert country name], which is free from *Phytophthora palmivora*".

OR

"The [insert species name] plants in this consignment were produced in a "pest free area" for *Phytophthora palmivora*".

OR

"The [insert species name] plants in this consignment were produced in a "pest free place of production" for *Phytophthora palmivora*".

### **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 3B Minimum Period: 3 months

<sup>1</sup>Implementation of measures:

For consignments with a phytosanitary certificate issued <u>on or after 25 May 2018</u> the requirements for *Phytophthora capsici* and *P. palmivora* <u>must</u> be met.

For consignments with a phytosanitary certificate issued no later than <u>24 May 2018</u>, the requirements for *Phytophthora capsici* and *P. palmivora* are not mandatory.

# 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 **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, 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 *Ceratocystis fimbriata* (section 2.2.1.8) **Note**: Only applies to members of the *Carya* genus
- b. Conditions for *Xylella fastidiosa* (section 2.2.1.12) Note: Only applies to members of the *Carya* genus
- c. Additional declaration: "*Fusicladium effusum* and Pecan bunch are not known to occur in \_\_\_\_\_\_(the country or state where the plants were grown) \_\_\_\_\_\_".

#### **B. For Tissue Cultures PEQ**: Level 2 **Minimum Period**: 6 months

- a. Conditions for *Xylella fastidiosa* on tissue culture (section 2.2.2.5) 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) \_\_\_".

**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; Xylella fastidiosa

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

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

**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. Conditions for *Xylella fastidiosa* (section 2.2.1.12)
   Note: Only applies to the members of the *Liriodendron* genus
   Guidance for importers: The minimum quarantine period will be <u>6 months</u> for nursery stock sourced from countries <u>not</u> recognised by MPI as free from *Xylella fastidiosa*
- c. Additional declaration: "*Cryphonectria parasitica* is not known to occur in \_\_\_\_\_\_(the country or state where the plants/cuttings were produced) \_\_\_\_\_\_".

### OPTION 2: PEQ: Level 3B 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. Conditions for *Xylella fastidiosa* (section 2.2.1.12) Note: Only applies to the members of the *Liriodendron* genus

#### **B.** For Tissue Cultures

- a. Conditions for *Xylella fastidiosa* on tissue culture (section 2.2.2.5)
   Note: Only applies to members of the *Liriodendron* genus
   Guidance for importers: There will be a minimum quarantine period of <u>6 months in a Level 2 PEQ</u> greenhouse, for tissue cultures from countries <u>not</u> recognised by MPI as free from *Xylella fastidiosa*.
- b. 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 carinife; 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) PEQ: Level 3B

Minimum Period: 3 months

- a. Conditions for *Phytophthora ramorum* (section 2.2.1.11)
- b. Conditions for *Xylella fastidiosa* (section 2.2.1.12)
   Guidance for importers: The minimum quarantine period will be <u>6 months</u> for nursery stock sourced from countries <u>not</u> recognised by MPI as free from *Xylella fastidiosa*
- 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."

#### **B. For Tissue Cultures PEQ**: Level 3B **Minimum Period**: 3 months

- a. Conditions for *Xylella fastidiosa* (section 2.2.2.5)
   Guidance for importers: The minimum quarantine period will be <u>6 months</u> for nursery stock sourced from countries <u>not</u> recognised by MPI as free from *Xylella fastidiosa*
- b. 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 tissue cultures were derived from a tree that was inspected) during the previous growing season and no *Cryphonectria parasitica* or *Ceratocystis fagacearum* 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 *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.; *Phellinus noxius*; Uredinales

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

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

> a. Conditions for *Phellinus noxius* (section 2.2.1.13) **Note:** Only applies to the following species: *Chamaecyparis formosensis; Cupressus lusitanica*

#### **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 *Chichorium*", 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 tentaculata

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 tentaculata*<sup>1</sup>

One of the following Additional Declarations must be endorsed on the phytosanitary certificate:

"The [insert species name] plants in this consignment have been sourced from [insert country name], which is free from *Phytophthora tentaculata*".

#### OR

"The [insert species name] plants in this consignment were produced in a "pest free area" for *Phytophthora tentaculata*".

OR

"The [insert species name] plants in this consignment were produced in a "pest free place of production" for *Phytophthora tentaculata*".

#### **B.** For Tissue Cultures

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

<sup>1</sup>Implementation of measures:

For consignments with a phytosanitary certificate issued <u>on or after 25 May 2018</u> the requirements for *Phytophthora tentaculata* <u>must</u> be met.

For consignments with a phytosanitary certificate issued no later than <u>24 May 2018</u>, the requirements for *Phytophthora tentaculata* are not mandatory.

# 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: Phytophthora tentaculata, Potato spindle tuber viroid, Uredinales

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

"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. Conditions for *Phytophthora tentaculata*<sup>1</sup> **Note:** Only applies to the following genus: *Argranthemum* 

One of the following Additional Declarations must be endorsed on the phytosanitary certificate:

"The [insert species name] plants in this consignment have been sourced from [insert country name], which is free from *Phytophthora tentaculata*".

#### OR

"The [insert species name] plants in this consignment were produced in a "pest free area" for *Phytophthora tentaculata*".

#### OR

"The [insert species name] plants in this consignment were produced in a "pest free place of production" for *Phytophthora tentaculata*".

#### **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*".

<sup>1</sup>Implementation of measures:

For consignments with a phytosanitary certificate issued on or after 25 May 2018 the requirements for *Phytophthora tentaculata* <u>must</u> be met.

For consignments with a phytosanitary certificate issued no later than <u>24 May 2018</u>, the requirements for *Phytophthora tentaculata* are not mandatory.

# 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) <u>Phytosanitary requirements</u>

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 MPIaccredited 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) <u>Phytosanitary requirements</u>

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) <u>Additional declarations to the phytosanitary certificate</u>

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 3B MPI-accredited facility. Refer to *Citrus* Inspection, Testing and Treatment Requirements following the *Citrus* pest list.

#### (v) *Post-entry quarantine*

**PEQ**: Level 3B

**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) <u>Pest proof container and growing media for tissue culture</u>

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) <u>Phytosanitary requirements</u>

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 MPIaccredited facility

AND

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

#### (v) <u>Additional declarations to the phytosanitary certificate</u>

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) <u>Pest proof container and growing media for tissue culture</u>

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) <u>Phytosanitary requirements</u>

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 3B

**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)**

<u> </u>	
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	-
<i>Geloptera porosa</i>	pitted apple beetle
Luperomorpha funesta	mulberry flea beetle
Monolepta australis	red-shouldered leaf beetle
Sebaethe fulvipennis	flea beetle
Coccinellidae	neu beene
Cheilomenes lunata [Animals Biosecurity]	_
Chilocorus cacti [Animals Biosecurity]	
<i>Chilocorus distigma</i> [Animals Biosecurity]	
Chilocorus nigrita [Animals Biosecurity]	-
Exochomus flavipes [Animals Biosecurity]	
Pentilia castanea [Animals Biosecurity]	-
<i>Rhyzobius lophanthae</i> [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.	-

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

Aleuroplatus sp. Aleurothrixus floccosus Aleurotuba jelinekii Aleurotuberculatus aucubae Bemisia citricola Dialeurodes citri Dialeurodes citrifolii Dialeurolonga sp. Parabemisia myricae Siphoninus phillyreae Aphididae Aphis fabae Aulacorthum magnoliae Cicadellidae Asymmetrasca decedens Circulifer opacipennis Circulifer tenellus Cuerna costalis Edwardsiana flavescens Empoasca bodenheimeri Empoasca citrusa Empoasca decipiens Empoasca distinguenda Empoasca fabae Empoasca onukii Homalodisca coagulata Homalodisca lacerta Jacobiasca lybica Neoaliturus haematoceps Penthimiola bella Scaphytopius nitridus Cicadidae Cryptotympana facialis Meimuna opalifera Coccidae Ceroplastes floridensis Ceroplastes japonicus Ceroplastes rubens Ceroplastes rusci Coccus celatus Coccus pseudomagnoliarum Coccus viridis Cribrolecanium andersoni Gascardia brevicauda Protopulvinaria pyriformis Pulvinaria aethiopica Pulvinaria aurantii Pulvinaria cellulosa Saissetia citricola Saissetia somereni **Dactylopiidae** Dactylopius filamentosis Dactylopius vastator Diaspididae Aonidiella citrina Chrysomphalus aonidum Chrysomphalus bifasciculatus Chrysomphalus dictyospermi Chrysomphalus pinnulifera Ischnaspis longirostris

whitefly woolly whitefly aucuba whitefly citrus whitefly cloudywinged whitefly Japanese bayberry whitefly phillyrea whitefly bean aphid Japanese elder aphid leafhopper beet leafhopper leafhopper leafhopper green citrus leafhopper green leafhopper potato leafhopper tea green leafhopper glassy-winged sharpshooter cotton jassid leafhopper citrus leafhopper leafhopper black cicada elongate cicada Florida wax scale pink wax scale red wax scale fig wax scale citricola scale green scale white powdery scale white waxy scale pyriform scale soft green scale citrus cottony scale pulvinaria scale citrus string cottony scale vellow scale Florida red scale brown scale dictyospermum scale

false purple scale

black thread scale

Lepidosaphes beckii Lepidosaphes gloverii Parlatoria ziziphi Pseudaonidia duplex Selenaspidus articulatus Unaspis citri Unaspis yanonensis Flatidae Colgar peracuta Geisha distinctissima Lawana conspersa Metcalfa pruinosa Fulgoridae Anzora unicolor Margarodidae Drosicha howardi Icerya seychellarum Ortheziidae Nipponorthezia ardisiae Pseudococcidae Allococcus spp. Ferrisia consobrina Ferrisia virgata Nipaecoccus vastator Nipaecoccus viridis Paracoccus burnerae Planococcus kraunhiae Planococcus lilacinus Planococcus minor Pseudococcus citriculus Pseudococcus commonus Pseudococcus filamentosus Rastrococcus spinosus Rhizoecus kondonis Psyllidae Diaphorina citri *Trioza erytreae* [vector] Ricaniidae Scolvpopa sp. Tropiduchidae Tambinia sp. Hymenoptera Aphelinidae Aphytis africanus [Animals Biosecurity] Aphytis holoxanthus [Animals Biosecurity] Aphytis lepidosaphes [Animals Biosecurity] Aphytis lingnanensis [Animals Biosecurity] Aphytis melinus [Animals Biosecurity] Azotus platensis [Animals Biosecurity] Cales noacki [Animals Biosecurity] Cales orchamoplati [Animals Biosecurity] *Centrodora penthimiae* [Animals Biosecurity] Coccophagus caridei [Animals Biosecurity] Coccophagus pulvinariae [Animals Biosecurity] Encarsia ectophaga [Animals Biosecurity] Encarsia lahorensis [Animals Biosecurity] Encarsia lounsburyi [Animals Biosecurity] *Encarsia opulenta* [Animals Biosecurity] Encarsia smithi [Animals Biosecurity] Eretmocerus serius [Animals Biosecurity]

purple scale Glover scale black parlatoria scale camphor scale West Indian red scale citrus snow scale Japanese citrus scale

green broad-winged planthopper green flatid planthopper planthopper

persimmon mealybug Seychelles scale

ensign scale

- mealybug striped mealybug nipa mealybug hibiscus mealybug spherical mealybug Japanese wisteria mealybug citrus mealybug passionvine mealybug smaller citrus mealybug
- mealybug mealybug Kondo mealybug

citrus psyllid citrus psyllid

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

Trichogramma platneri [Animals Biosecurity] Vespidae Polistes spp. [Animals Biosecurity] Isoptera Termitidae Odontotermes lokanandi Lepidoptera Arctiidae Lemyra imparilis Blastobasidae Holcocera iceryaeella Cosmopterigidae Pyroderces rileyi Geometridae Anacamptodes fragilaria Ascotis selenaria reciprocaria *Gymnoscelis rufifasciata* Hyposidra talaca Gracillariidae Phyllocnistis citrella Hepialidae Endoclita excrescens Endoclita sinensis Lycaenidae Virachola isocrates Lymantriidae Orgyia vetusta Metarbelidae Indarbela tetraonis Noctuidae Arcte coerula Eudocima fullonia Helicoverpa assulta Helicoverpa punctigera Tiracola plagiata Xylomyges curialis Nymphalidae Charaxes jasius Oecophoridae Psorosticha melanocrepida Psorosticha zizyphi Stathmopoda auriferella Papilionidae Papilio aegeus aegeus Papilio anactus Papilio cresphontes Papilio dardanus cenea Papilio demodocus Papilio demoleus demoleus Papilio helenus nicconicolens Papilio machaon asiatica Papilio memnon Papilio memnon thunbergii Papilio nireus lyaeus Papilio polytes polytes Papilio protenor demetrius Papilio xuthus Papilio zelicaon Psychidae Eumeta hardenbergi

paper wasps termite mulberry tiger moth pink scavenger caterpillar koa haole looper citrus looper geometrid moth citrus leafminer Japanese swift moth pomegranate butterfly western tussock moth stem borer fruit-piercing moth fruit-piercing moth cape gooseberry budworm oriental tobacco budworm banana fruit caterpillar noctuid moth nymphalid butterfly citrus leafroller citrus leafroller apple heliodinid small citrus butterfly orange dog orange dog citrus swallowtail citrus swallowtail anise swallowtail

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

#### Unknown Insecta

#### Cosmophyllum pallidulum Mite Arachnida Acarina Acaridae Thyreophagus entomophagus italicus [Animals Biosecurity] Anystidae Anystis agilis [Animals Biosecurity] Eriophyidae Aculops pelekassi eriophyid mite brown citrus mite Tegolophus australis 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 bunch mite Brevipalpus lewisi 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 Texus citrus mite pear leaf blister mite Eutetranychus orientalis 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 Gastropod

Stylommatophora	
Achatinidae	
Achatina immaculata	_
Lissachatina immaculata	snail
Bradybaenidae	Siluii
Acusta despecta sieboldiana	snail
Subulinidae	Siluii
Rumina decollata	snail
Urocyclidae	Siluli
Urocyclus flavescens	_
Urocyclus kirkii	-
Fungus	
Ascomycota	
Diaporthales	
Valsaceae	
Diaporthe rudis (anamorph Phomopsis rudis)	phomopsis canker
Dothideales	
Elsinoaceae	
Elsinoe australis	sweet orange scab
Capnodiaceae	Ũ
Ĉapnodium citri	sooty mould
Didymosphaeriaceae	
Didymosphaeria sp.	
Microascales	
Ceratocysticaceae	
Ceratocystis fimbriata	-
Mycosphaerellaceae	
Guignardia citricarpa (anamorph Phyllosticta	citrus black spot
<i>citricarpa</i> ) [black spot strain]	Ĩ
Mycosphaerella citri (anamorph Stenella citri-grisea)	rind blotch
Mycosphaerella horii	greasy spot
Patellariales	
Patellariaceae	
Rhytidhysteron rufulum	
Saccharomycetales	
Saccharomycetaceae	
Debaryomyces hansenii	-
Galactomyces citri-aurantii (anamorph Geotrichum	sour rot
citri-aurantii)	
Basidiomycota: Agaricomycetes	
Hymenochaetales	
Hymenochaetaceae	
Phellinus noxius	brown root rot
Basidiamvaata. Basidiamvaatas	

Sphaeropsidales Sphaerioidaceae Macrophoma mantegazziana

Septobasidium pseudopedicellatum

Sphaceloma fawcettii var. scabiosa

**Basidiomycota: Basidiomycetes** 

Coniophora eremophila

**Basidiomycota: Teliomycetes** 

Unknown Mitosporic Fungi Unknown Mitosporic Fungi

Mitosporic Fungi (Coelomycetes)

Coniophoraceae

Septobasidiales Septobasidiaceae

**Mitosporic Fungi** 

**Boletales** 

brown wood rot

felt fungus

\_

Phoma erratica var. mikan	
Phoma tracheiphila	mal secco
Phomopsis sp.	rot
Septoria spp.	-
Sphaeropsis tumefaciens	stem gall
Unknown Coelomycetes	
Unknown Coelomycetes	
Aschersonia placenta [Animals Biosecurity]	
Gloeosporium foliicolum	fruit rot
Mitosporic Fungi (Hyphomycetes)	
Hyphomycetales	
Dematiaceae	
Alternaria limicola	-
Alternaria pellucida	
Cercospora microsora	-
Phaeoramularia angolensis	cercospora spot
Stemphylium rosarium	
Ulocladium obovoideum	ulocladium rot
Unknown Hyphomycetes	
Unknown Hyphomycetes	
Aureobasidium sp.	-
Hirsutella thompsonii [Animals Biosecurity]	
Isaria sp. [Animals Biosecurity]	-
Oidium tingitaninum Sporobolomyces roseus	powdery mildew
Stenella sp.	
Oomycota: Oomycete	
Peronosporales	
Peronosporaceae	
Phytophthora capsici	fruit rot of peppers
Phytophthora palmivora	black rot
Zygomycota: Zygomycetes	DIACK TOL
Glomales	
Glomaceae	
Glomus etunicatum [Animals Biosecurity]	
Mucorales	
Syncephalastraceae	
Syncephalastrum racemosum	
Syncephalastrain racemosain	
Bacterium	
Bacterium family unknown	
Liberobacter africanum	citrus greening bacterium
Liberobacter asiaticum	citrus greening bacterium
Liberobacter sp.	citrus greening bacterium
Spiroplasma citri	citrus stubborn
Pseudomonadaceae	
Burkholderia cepacia	sour skin
Xanthomonas axonopodis pv. citri	citrus canker
Xanthomonas campestris pv. aurantifolii	-
Xanthomonas campestris pv. citrumelo	citrus bacterial spot
Xylella fastidiosa	Pierce's disease
Xylella fastidiosa pv. citri	variegated chlorosis of citrus
Virus	
Indian citrus mosaic badnavirus	-
citrus cachexia viroid	-
citrus chlorotic dwarf	-
citrus infectious variegation 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

·	Candidatus Phytoplasma aurantifolia	witches' broom phytoplasma
	rubbery wood	-

Disease of unknown aetiology	
Australian citrus dieback	-
blind pocket	-
bud union disease	-
citrus blight disease	-
citrus fatal yellows	-
citrus impietratura disease	-
citrus sunken vein disease	-
concave gum	-
cristacortis	-
gum pocket	-
gummy bark	-
kassala disease	-
lemon sieve tube necrosis	-
shell bark of lemons	-
zonate chlorosis	-

Ministry for Primary Industries Import Health Standard 155.02.06: Importation of Nursery Stock

# 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.
Oomycete	Growing season inspection for symptom expression.
Bacterium	
Burkholderia cepacia	Growing season inspection for symptom expression.
Liberobacter africanum	Country freedom OR graft-inoculated sweet oranges, orange pineapple, 18 to 25°C.
Liberobacter asiaticum	Country freedom OR graft-inoculated sweet oranges, orange pineapple, 18 to 25°C.
Spiroplasma citri	Country freedom/shoot tip grafting. Graft inoculated sweet orange, 27 to $32^{\circ}$ C. Bioassay = culture petiole new flush tissue. Collect tissue after several days at hot temperature (> $30^{\circ}$ C) and incubate cultures at $32^{\circ}$ C.
Xanthomonas axonopodis pv. citri	Country freedom/shoot tip grafting bioassay/detached leaf bioassay/ PCR OR suitable citrus indicator.
Xanthomonas campestris pv. aurantifolii	Country freedom/shoot tip grafting bioassay/detached leaf bioassay/ PCR OR suitable citrus indicator.
Xanthomonas campestris pv. citrumelo	Country freedom/shoot tip grafting bioassay/detached leaf bioassay/ PCR OR suitable citrus indicator.
Xylella fastidiosa	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 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	Country freedom OR ELISA, graft inoculated Mexican lime, sour orange and <i>Citrus</i>
closterovirus [strains not in New Zealand]	<i>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	Country freedom OR graft inoculated satsums. Grow indicators at cool temperatures
nepovirus	18 to 25°C.
satsuma dwarf	Country freedom OR graft inoculated satsums. Grow indicators at cool temperatures
nepovirus [Natsudaidai	18 to 25°C.
dwarf strain]	
yellow vein clearing of	Country freedom OR graft inoculated Mexican lime or sour orange. Grow indicators
lemon	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-	Country freedom OR SPAGE and PCR on graft inoculated citron extract. Grow
IV)	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 aeti	ology
Australian citrus	Country freedom OR other suitable test
dieback	
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 Citrus macrophylla.
citrus impietratura	Country freedom OR graft inoculated dweet tangor or sweet orange. Growth
disease	indicators at cool temperatures 18 to 25°C.
citrus sunken vein	Country freedom OR other suitable test.
disease	
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.
cristacortis	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	Country freedom OR other suitable test.
necrosis	
shell bark of lemons	Country freedom OR other suitable test.
zonate chlorosis	Country freedom, cuttings collected from kassala free area.
Phytoplasma	
Candidatus phytoplasma	
aurantifolia	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:

The unit for testing is defined in section 2.3.2.1.
 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."

**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 2Minimum Period:3 months

#### **Additional Declaration:**

"Pratylenchus convallariae is 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 *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. For Whole Plants PEQ: Level 3B Minimum Period: 3 months

a. Conditions for Phytophthora ramorum (section 2.2.1.11)

**B. For Tissue Cultures PEQ**: Level 3B **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 *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 *Phytophthora ramorum* (see section 2.2.1.11)
- b. Conditions for *Xylella fastidiosa* (see section 2.2.1.12)
   Guidance for importers: The minimum quarantine period will be <u>6 months</u> for nursery stock sourced from countries <u>not</u> recognised by MPI as free from Xylella fastidiosa
- c. 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".
- d. Additional declaration: "The plants have been dipped in propiconazole at the rate of 0.5g a.i. per litre of water, prior to export".

### **B.** For Tissue Cultures

 a. Conditions for *Xylella fastidiosa* on tissue culture (see section 2.2.2.5)
 Guidance for importers: There will be a minimum quarantine period of <u>6 months in a Level 2 PEQ</u> greenhouse, for tissue cultures from countries <u>not</u> recognised by MPI as free from *Xylella fastidiosa*. **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; Phellinus noxius, Phytophthora capsici* 

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. Additional declarations

"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) \_". AND

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

- b. Conditions for *Phellinus noxius* (section 2.2.1.13) **Note**: Only applies to members of the *Crataegus* genus
- c. Conditions for *Phytophthora capsici*<sup>1</sup> **Note:** Only applies to members of the *Crataegus* genus

Note: Only applies to members of the Cratacegus genus

One of the following Additional Declarations must be endorsed on the phytosanitary certificate:

"The [insert species name] plants in this consignment have been sourced from [insert country name], which is free from *Phytophthora capsici*".

### OR

"The [insert species name] plants in this consignment were produced in a "pest free area" for *Phytophthora capsici*".

OR

"The [insert species name] plants in this consignment were produced in a "pest free place of production" for *Phytophthora capsici*".

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

a. Conditions for *Phellinus noxius* (section 2.2.1.13) **Note**: Only applies to members of the *Crataegus* 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.

<sup>1</sup>Implementation of measures:

For consignments with a phytosanitary certificate issued <u>on or after 25 May 2018</u> the requirements for *Phytophthora capsici* <u>must</u> be met.

For consignments with a phytosanitary certificate issued no later than <u>24 May 2018</u>, the requirements for *Phytophthora capsici* are not mandatory.

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

### **GENERAL CONDITIONS:**

### 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 <u>other than</u> 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 <u>other than</u> 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, Phellinus noxius

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 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 *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 omnivore, Phytophthora capsici, Potato spindle tuber viroid, 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

a. Additional Declarations

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

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

b. Conditions for *Phytophthora capsici*<sup>1</sup>

One of the following Additional Declarations must be endorsed on the phytosanitary certificate:

"The [insert species name] plants in this consignment have been sourced from [insert country name], which is free from *Phytophthora capsici*".

### OR

"The [insert species name] plants in this consignment were produced in a "pest free area" for *Phytophthora capsici*".

### OR

"The [insert species name] plants in this consignment were produced in a "pest free place of production" for *Phytophthora capsici*".

**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

# 1) For bulbs produced under a MPI-approved Dutch bulb propagation scheme

### a. Additional Declarations

"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*".

b. Conditions for *Phytophthora capsici*<sup>1</sup>

One of the following Additional Declarations must be endorsed on the phytosanitary certificate:

"The [insert species name] plants in this consignment have been sourced from [insert country name], which is free from *Phytophthora capsici*".

OR

"The [insert species name] plants in this consignment were produced in a "pest free area" for *Phytophthora capsici*".

### OR

"The [insert species name] plants in this consignment were produced in a "pest free place of production" for *Phytophthora capsici*".

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

a. Additional Declarations

"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

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

b. Conditions for *Phytophthora capsici*<sup>1</sup>

One of the following Additional Declarations must be endorsed on the phytosanitary certificate:

"The [insert species name] plants in this consignment have been sourced from [insert country name], which is free from *Phytophthora capsici*".

### OR

"The [insert species name] plants in this consignment were produced in a "pest free area" for *Phytophthora capsici*".

# OR

"The [insert species name] plants in this consignment were produced in a "pest free place of production" for *Phytophthora capsici*".

# **OPTION 2:**

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

a. Additional Declaration

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

b. Conditions for *Phytophthora capsici*<sup>1</sup>

One of the following Additional Declarations must be endorsed on the phytosanitary certificate:

"The [insert species name] plants in this consignment have been sourced from [insert country name], which is free from *Phytophthora capsici*".

# OR

"The [insert species name] plants in this consignment were produced in a "pest free area" for *Phytophthora capsici*".

### OR

"The [insert species name] plants in this consignment were produced in a "pest free place of production" for *Phytophthora capsici*".

### 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)

a. Additional Declarations

"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

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*".

b. Conditions for Phymatotrichopsis omnivore

One of the following Additional Declarations must be endorsed on the phytosanitary certificate:

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

### OR

"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 omnivoria*:

- 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
- c. Conditions for *Phytophthora capsici*<sup>1</sup>

One of the following Additional Declarations must be endorsed on the phytosanitary certificate:

"The [insert species name] plants in this consignment have been sourced from [insert country name], which is free from *Phytophthora capsici*".

### OR

"The [insert species name] plants in this consignment were produced in a "pest free area" for *Phytophthora capsici*".

OR

"The [insert species name] plants in this consignment were produced in a "pest free place of production" for *Phytophthora capsici*".

# D. For Dormant Bulbs from Countries <u>other than</u> 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

a. Additional Declarations

"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

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

b. Conditions for Phymatotrichopsis omnivore

One of the following Additional Declarations must be endorsed on the phytosanitary certificate:

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

# OR

"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 omnivoria*:

- 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
- c. Conditions for *Phytophthora capsici*<sup>1</sup>

One of the following Additional Declarations must be endorsed on the phytosanitary certificate:

"The [insert species name] plants in this consignment have been sourced from [insert country name], which is free from *Phytophthora capsici*".

# OR

"The [insert species name] plants in this consignment were produced in a "pest free area" for *Phytophthora capsici*".

# OR

"The [insert species name] plants in this consignment were produced in a "pest free place of production" for *Phytophthora capsici*".

# **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."

<sup>1</sup>Implementation of measures:

For consignments with a phytosanitary certificate issued on or after 25 May 2018 the requirements for *Phytophthora capsici* must be met.

For consignments with a phytosanitary certificate issued no later than <u>24 May 2018</u>, the requirements for *Phytophthora capsici* are not mandatory.

**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, Phellinus noxius, Phytophthora capsici, Phytophthora palmivora, Phytophthora tentaculata, Xylella fastidiosa, 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. Conditions for *Phellinus noxius* (section 2.2.1.13) Note: Applies to the following species: *Barleria cristata* and applies to all members of the *Erythrina* genus
- c. Conditions for *Phytophthora capsici*<sup>1</sup> Note: Only applies to the following genus: *Carolinianum*

One of the following Additional Declarations must be endorsed on the phytosanitary certificate:

"The [insert species name] plants in this consignment have been sourced from [insert country name], which is free from *Phytophthora capsici*".

### OR

"The [insert species name] plants in this consignment were produced in a "pest free area" for *Phytophthora capsici*".

### OR

"The [insert species name] plants in this consignment were produced in a "pest free place of production" for *Phytophthora capsici*".

# d. Conditions for *Phytophthora palmivora*<sup>1</sup>

Note: Only applies to the following genus: Erythrina

One of the following Additional Declarations must be endorsed on the phytosanitary certificate:

"The [insert species name] plants in this consignment have been sourced from [insert country name], which is free from *Phytophthora palmivora*".

OR

"The [insert species name] plants in this consignment were produced in a "pest free area" for *Phytophthora palmivora*".

OR

"The [insert species name] plants in this consignment were produced in a "pest free place of production" for *Phytophthora palmivora*".

e. Conditions for *Phytophthora tentaculata*<sup>1</sup>

Note: Only applies to the following genera: Delphinium and Salvia

One of the following Additional Declarations must be endorsed on the phytosanitary certificate:

"The [insert species name] plants in this consignment have been sourced from [insert country name], which is free from *Phytophthora tentaculata*". **OR** 

"The [insert species name] plants in this consignment were produced in a "pest free area" for *Phytophthora tentaculata*".

OR

"The [insert species name] plants in this consignment were produced in a "pest free place of production" for *Phytophthora tentaculata*".

f. Conditions for *Xylella fastidiosa* (section 2.2.1.12)
 Note: Only applies to the members of the *Convolvulus, Crepis, Erigeron, Euryops, Geranium, Phyllanthus, Salvia* and *Senecio* genera
 Guidance for importers: The minimum quarantine period will be <u>6 months</u> for nursery stock sourced from countries <u>not</u> recognised by MPI as free from *Xylella fastidiosa*

### g. 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

a. Conditions for *Xylella fastidiosa* on tissue culture (see section 2.2.2.5) **Note:** Only applies to the members of the *Convolvulus*, *Crepis*, *Erigeron*, *Euryops*, *Geranium*, *Phyllanthus*, *Salvia* and *Senecio* genera

**Guidance for importers**: There will be a minimum quarantine period of <u>6 months in a Level 2 PEQ</u> <u>greenhouse</u>, for tissue cultures from countries <u>not</u> recognised by MPI as free from *Xylella fastidiosa*.

<sup>1</sup>Implementation of measures:

For consignments with a phytosanitary certificate issued no later than <u>24 May 2018</u>, the requirements for *Phytophthora capsici*, *P. palmivora* and *P. tentaculata* are not mandatory.

For consignments with a phytosanitary certificate issued on or after 25 May 2018 the requirements for *Phytophthora capsici*, *P. palmivora* and *P. tentaculata* <u>must</u> be met.

**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., Phytophthora capsici, Phytophthora palmivora, Uredinales

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

A. For Whole PlantsPEQ:Level 2Minimum Period:3 months

a. Additional declaration

"The plants have been inspected in accordance with appropriate official procedures and found to be free of *Frankliniella occidentalis* and *Liriomyza* spp." **AND** 

"The plants were inspected during the growing season and no rust diseases were found"

b. Conditions for *Phytophthora capsici*<sup>1</sup>

One of the following Additional Declarations must be endorsed on the phytosanitary certificate:

"The [insert species name] plants in this consignment have been sourced from [insert country name], which is free from *Phytophthora capsici*".

### OR

"The [insert species name] plants in this consignment were produced in a "pest free area" for *Phytophthora capsici*".

### OR

"The [insert species name] plants in this consignment were produced in a "pest free place of production" for *Phytophthora capsici*".

c. Conditions for Phytophthora palmivora<sup>1</sup>

One of the following Additional Declarations must be endorsed on the phytosanitary certificate:

"The [insert species name] plants in this consignment have been sourced from [insert country name], which is free from *Phytophthora palmivora*".

### OR

"The [insert species name] plants in this consignment were produced in a "pest free area" for *Phytophthora palmivora*".

OR

"The [insert species name] plants in this consignment were produced in a "pest free place of production" for *Phytophthora palmivora*".

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

<sup>1</sup>Implementation of measures:

For consignments with a phytosanitary certificate issued on or after 25 May 2018 the requirements for *Phytophthora capsici* and *Phytophthora palmivora* <u>must</u> be met.

For consignments with a phytosanitary certificate issued no later than <u>24 May 2018</u>, the requirements for *Phytophthora capsici* and *Phytophthora palmivora* are not mandatory.

# 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., Phytophthora capsici, Phytophthora palmivora

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

A. For Whole Plants OPTION 1: PEQ: Level 2 Minimum Period: 3 months

a. 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. Conditions for *Phytophthora capsici*<sup>1</sup>

One of the following Additional Declarations must be endorsed on the phytosanitary certificate:

"The [insert species name] plants in this consignment have been sourced from [insert country name], which is free from *Phytophthora capsici*".

### OR

"The [insert species name] plants in this consignment were produced in a "pest free area" for *Phytophthora capsici*".

### OR

"The [insert species name] plants in this consignment were produced in a "pest free place of production" for *Phytophthora capsici*".

d. Conditions for *Phytophthora palmivora*<sup>1</sup>

One of the following Additional Declarations must be endorsed on the phytosanitary certificate:

"The [insert species name] plants in this consignment have been sourced from [insert country name], which is free from *Phytophthora palmivora*".

### OR

"The [insert species name] plants in this consignment were produced in a "pest free area" for *Phytophthora palmivora*".

### OR

"The [insert species name] plants in this consignment were produced in a "pest free place of production" for *Phytophthora palmivora*".

### **OPTION 2: (For Netherlands only) PEQ:** Level 2

### Minimum Period: 4 weeks

a. Additional declaration

"The imported plants meet the requirements of the NAKtuinbouw Elite (Class SEE or EE) [choose one] certification scheme."

### AND

"The plants have been held at  $1.5^{\circ}C \pm 0.5^{\circ}C$  for 2 days, then fumigated with methyl bromide at  $14g/m^3$  for 4 hours at  $15^{\circ}C$  and packed so that re-infestation with insects cannot occur."

b. Conditions for *Phytophthora capsici*<sup>1</sup>

One of the following Additional Declarations must be endorsed on the phytosanitary certificate:

"The [insert species name] plants in this consignment have been sourced from [insert country name], which is free from *Phytophthora capsici*".

### OR

"The [insert species name] plants in this consignment were produced in a "pest free area" for *Phytophthora capsici*".

# OR

"The [insert species name] plants in this consignment were produced in a "pest free place of production" for *Phytophthora capsici*".

c. Conditions for *Phytophthora palmivora*<sup>1</sup>

One of the following Additional Declarations must be endorsed on the phytosanitary certificate:

"The [insert species name] plants in this consignment have been sourced from [insert country name], which is free from *Phytophthora palmivora*".

# OR

"The [insert species name] plants in this consignment were produced in a "pest free area" for *Phytophthora palmivora*".

### OR

"The [insert species name] plants in this consignment were produced in a "pest free place of production" for *Phytophthora palmivora*".

### **B.** For Tissue Cultures

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

<sup>1</sup>Implementation of measures:

For consignments with a phytosanitary certificate issued no later than <u>24 May 2018</u>, the requirements for *Phytophthora capsici* and *Phytophthora palmivora* are not mandatory.

For consignments with a phytosanitary certificate issued <u>on or after 25 May 2018</u> the requirements for *Phytophthora capsici* and *Phytophthora palmivora* <u>must</u> be met.

**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*<sup>1</sup>

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*".

<sup>&</sup>lt;sup>1</sup> 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):

"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".
 "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 <u>other than</u> Australia, Austria, Belgium, Canada, Denmark, Finland, France, Germany, Greece, Ireland, Israel, Italy, Luxembourg, The Netherlands, Portugal, South Africa, Spain, Sweden, United Kingdom, USA

**PEQ:** Level 1 or Level 2 (see below)

#### Minimum Period: 3 months Additional Declaration(s):

**1.** "The dormant bulbs in this consignment have been:

 derived from a crop which was inspected during the growing season according to appropriate procedures and found to be free of regulated pests.

# AND

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

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

# OR

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

AND

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

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

# E. For Tissue Cultures

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

# Additional Declaration:

"The cultures have been derived from parent stock tested and found free of virus diseases."

**Note:** The entry conditions in this schedule only apply to species in the Plants Biosecurity Index listed under Import Specifications for Nursery Stock as "see 155.02.06 under *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, Phellinus noxius, Phytophthora capsici, Xylella fastidiosa

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

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

- a. Conditions for *Xylella fastidiosa* (section 2.2.1.12)
   Guidance for importers: The minimum quarantine period will be <u>6 months</u> for nursery stock sourced from countries <u>not</u> recognised by MPI as free from *Xylella fastidiosa*
- b. Conditions for Phellinus noxius (section 2.2.1.13)
- c. Conditions for *Phytophthora capsici*<sup>1</sup>

One of the following Additional Declarations must be endorsed on the phytosanitary certificate:

"The [insert species name] plants in this consignment have been sourced from [insert country name], which is free from *Phytophthora capsici*".

### OR

"The [insert species name] plants in this consignment were produced in a "pest free area" for *Phytophthora capsici*".

### OR

"The [insert species name] plants in this consignment were produced in a "pest free place of production" for *Phytophthora capsici*".

### **B. For Tissue Cultures PEQ**: Level 3B **Minimum Period**: 3 months

a. Conditions for *Xylella fastidiosa* (section 2.2.2.5)
 Guidance for importers: The minimum quarantine period will be <u>6 months</u> for nursery stock sourced from countries <u>not</u> recognised by MPI as free from *Xylella fastidiosa*

<sup>1</sup>Implementation of measures:

For consignments with a phytosanitary certificate issued <u>on or after 25 May 2018</u> the requirements for *Phytophthora capsici* <u>must</u> be met.

For consignments with a phytosanitary certificate issued no later than <u>24 May 2018</u>, the requirements for *Phytophthora capsici* are not mandatory.

**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, Pantoea ananatis, Phytophthora palmivora, 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

a. 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*."
- b. Conditions for *Phytophthora palmivora*<sup>1</sup>

One of the following Additional Declarations must be endorsed on the phytosanitary certificate:

"The [insert species name] plants in this consignment have been sourced from [insert country name], which is free from *Phytophthora palmivora*".

### OR

"The [insert species name] plants in this consignment were produced in a "pest free area" for *Phytophthora palmivora*".

# OR

"The [insert species name] plants in this consignment were produced in a "pest free place of production" for *Phytophthora palmivora*".

# **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 deremenisis* **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.

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

Table 1 Alternate treatment for Dracaena deremensis

**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 Tissue Cultures

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

<sup>1</sup>Implementation of measures:

For consignments with a phytosanitary certificate issued on or after 25 May 2018 the requirements for *Phytophthora palmivora* <u>must</u> be met.

For consignments with a phytosanitary certificate issued no later than <u>24 May 2018</u>, the requirements for *Phytophthora* palmivora are not mandatory.

**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 *Epipremnum*", 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 capsici, Phytophthora palmivora

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 capsici*<sup>1</sup> **Note:** Only applies to the following genera: *Epipremnum, Macadamia* and *Philodendron* 

One of the following Additional Declarations must be endorsed on the phytosanitary certificate:

"The [insert species name] plants in this consignment have been sourced from [insert country name], which is free from *Phytophthora capsici*".

### OR

"The [insert species name] plants in this consignment were produced in a "pest free area" for *Phytophthora capsici*".

### OR

"The [insert species name] plants in this consignment were produced in a "pest free place of production" for *Phytophthora capsici*".

b. Conditions for Phytophthora palmivora<sup>1</sup>

One of the following Additional Declarations must be endorsed on the phytosanitary certificate:

"The [insert species name] plants in this consignment have been sourced from [insert country name], which is free from *Phytophthora palmivora*".

### OR

"The [insert species name] plants in this consignment were produced in a "pest free area" for *Phytophthora palmivora*".

### OR

"The [insert species name] plants in this consignment were produced in a "pest free place of production" for *Phytophthora palmivora*".

# B. For Tissue Cultures

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

#### <sup>1</sup>Implementation of measures:

For consignments with a phytosanitary certificate issued <u>on or after 25 May 2018</u> the requirements for *Phytophthora capsici* and *Phytophthora palmivora* <u>must</u> be met.

For consignments with a phytosanitary certificate issued no later than <u>24 May 2018</u>, the requirements for *Phytophthora capsici* and *Phytophthora palmivora* are not mandatory.

# 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, Phellinus noxius; 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)
- b. Conditions for *Phellinus noxius* (section 2.2.1.13)

Note: Only applies to the following species: Eriobotrya japonica

### c. 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.

**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); Chrysoporthe cubensis; Endothia havanensis; Mycosphaerella parva; Phellinus noxius; Phytophthora ramorum; Xylella fastidiosa

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

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

- a. Conditions for Ceratocystis fimbriata (section 2.2.1.8)
- b. Conditions for *Phytophthora ramorum* (section 2.2.1.11)
- c. Conditions for *Xylella fastidiosa* (section 2.2.1.12)
- d. Conditions for Phellinus noxious (section 2.2.1.13)

### **B.** For Tissue Cultures

- a. Conditions for *Xylella fastidiosa* on tissue culture (see section 2.2.2.5)
  Guidance for importers: There will be a minimum quarantine period of <u>6 months in a Level 2 PEO</u> greenhouse, for tissue cultures from countries <u>not</u> recognised by MPI as free from *Xylella fastidiosa*.
  Guidance for importers: Tissue cultures which are imported under Option 2 of the conditions for *Puccinia psidii* s.l. complex, AND require PEQ under section 2.2.2.5, must complete the PEQ requirements for *Puccinia psidii* before being deflasked into the PEQ greenhouse.
- b. Conditions for *Puccinia psidii* s.l. complex:

### **OPTION 1:**

- i) 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)".
- ii) 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

i) The cultures containers are not to be opened during the quarantine period.

**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:** *Phellinus noxius, Phytophthora palmivora, 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. Conditions for *Phellinus noxius* (section 2.2.1.13) **Note**: Only applies to the following species: *Syzygium samarangense*
- c. Conditions for *Phytophthora palmivora*<sup>1</sup> Note: Only applies to the members of the following genus: *Syzygium*

One of the following Additional Declarations must be endorsed on the phytosanitary certificate:

"The [insert species name] plants in this consignment have been sourced from [insert country name], which is free from *Phytophthora palmivora*".

### OR

"The [insert species name] plants in this consignment were produced in a "pest free area" for *Phytophthora palmivora*".

### OR

"The [insert species name] plants in this consignment were produced in a "pest free place of production" for *Phytophthora palmivora*".

 d. Additional declaration for *Puccinia psidii* s.l. complex "*Puccinia psidii* s.l. complex (including *Uredo rangelii*) is not known to occur in \_\_(the country of origin)\_\_".

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

- a. Conditions for Xylella fastidiosa (see section 2.2.1.12)
- b. Conditions for *Phellinus noxius* (section 2.2.1.13) **Note**: Only applies to the following species: *Syzygium samarangense*

### **B.** For Tissue Cultures

a. Conditions for *Xylella fastidiosa* on tissue culture (see section 2.2.2.5)

**Guidance for importers**: There will be a minimum quarantine period of <u>6 months in a Level 2 PEQ</u> <u>greenhouse</u>, for tissue cultures from countries <u>not</u> recognised by MPI as free from *Xylella fastidiosa*.

**Guidance for importers**: Tissue cultures which are imported under Option 2 of the conditions for *Puccinia psidii* s.l. complex, AND require PEQ under section 2.2.2.5, must complete the PEQ requirements for *Puccinia psidii* before being deflasked into the PEQ greenhouse.

b. Conditions for Puccinia psidii s.l. complex:

### **OPTION 1:**

- i) 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

i) The cultures containers are not to be opened during the quarantine period.

<sup>1</sup>Implementation of measures:

For consignments with a phytosanitary certificate issued on or after 25 May 2018 the requirements for *Phytophthora palmivora* <u>must</u> be met.

For consignments with a phytosanitary certificate issued no later than <u>24 May 2018</u>, the requirements for *Phytophthora* palmivora are not mandatory.

**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

- a. Conditions for *Xylella fastidiosa* (section 2.2.1.12)
   Guidance for importers: The minimum quarantine period will be <u>6 months</u> for nursery stock sourced from countries <u>not</u> recognised by MPI as free from *Xylella fastidiosa*
- 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

 a. Conditions for *Xylella fastidiosa* on tissue culture (see section 2.2.2.5)
 Guidance for importers: There will be a minimum quarantine period of <u>6 months in a Level 2 PEQ</u> greenhouse, for tissue cultures from countries <u>not</u> recognised by MPI as free from *Xylella fastidiosa*. **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.

**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; Phytopthora ramorum; Xylella fastidiosa;* Tortricidae

### **Entry Conditions:**

**Basic:** with variations and additional conditions as specified below:

### A. For Cuttings (dormant) and Whole Plants (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. Conditions for Phytophthora ramorum (section 2.2.1.11)
- c. Conditions for *Xylella fastidiosa* (section 2.2.1.12) Note: Only applies to the members of the *Fagus* genus
- 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 3B 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 *Xylella fastidiosa* (section 2.2.1.12) **Note:** Only applies to members of the species *Fagus* genus

### **B.** For Tissue Cultures

a. Conditions for *Xylella fastidiosa* on tissue culture (see section 2.2.2.5)
 Note: Only applies to the members of the *Fagus* genus
 Guidance for importers: There will be a minimum quarantine period of <u>6 months in a Level 2 PEQ</u> greenhouse, for tissue cultures from countries <u>not</u> recognised by MPI as free from *Xylella fastidiosa*.

**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*", 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; Cryphonectria parasitica; Phytophthora ramorum; Tortricidae; Xylella fastidiosa

### **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. Conditions for Phytophthora ramorum (section 2.2.1.11)
- c. Conditions for Xylella fastidiosa (section 2.2.1.12)
- d. 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".
- e. 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 3B 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 *Xylella fastidiosa* (section 2.2.1.12)

### **B.** For Tissue Cultures

- a. Conditions for *Xylella fastidiosa* on tissue culture (see section 2.2.2.5) **Guidance for importers**: There will be a minimum quarantine period of <u>6 months in a Level 2 PEQ</u> greenhouse, for tissue cultures from countries <u>not</u> recognised by MPI as free from *Xylella fastidiosa*.
- b. 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 *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, Phellinus noxius, Phytophthora capsici, Phytophthora palmivora, Uredo ficina, Xylella fastidiosa

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

A. For Whole Plants
PEQ: Level 2
Minimum Period: 3 months
Note: Nursery stock of Ficus microcarpa must be free of flowers and fruit.

- a. Conditions for *Ceratocystis fimbriata* (section 2.2.1.8) **Note:** Only applies to the following species: *Ficus carica*
- b. Conditions for *Phellinus noxius* (section 2.2.1.13)
- c. Conditions for *Phytophthora capsici*<sup>1</sup>

One of the following Additional Declarations must be endorsed on the phytosanitary certificate:

"The [insert species name] plants in this consignment have been sourced from [insert country name], which is free from *Phytophthora capsici*".

## OR

"The [insert species name] plants in this consignment were produced in a "pest free area" for *Phytophthora capsici*".

## OR

"The [insert species name] plants in this consignment were produced in a "pest free place of production" for *Phytophthora capsici*".

d. Conditions for *Phytophthora palmivora*<sup>1</sup>

One of the following Additional Declarations must be endorsed on the phytosanitary certificate:

"The [insert species name] plants in this consignment have been sourced from [insert country name], which is free from *Phytophthora palmivora*".

## OR

"The [insert species name] plants in this consignment were produced in a "pest free area" for *Phytophthora palmivora*".

OR

"The [insert species name] plants in this consignment were produced in a "pest free place of production" for *Phytophthora palmivora*".

- e. Conditions for *Xylella fastidiosa* (section 2.2.1.12)
   Guidance for importers: The minimum quarantine period will be <u>6 months</u> for nursery stock sourced from countries <u>not</u> recognised by MPI as free from *Xylella fastidiosa*
- f. 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*"

## **B. For Tissue Cultures PEQ**: Level 2 **Minimum Period**: 3 months

- a. Conditions for *Xylella fastidiosa* (section 2.2.2.5)
   Guidance for importers: The minimum quarantine period will be <u>6 months</u> for nursery stock sourced from countries <u>not</u> recognised by MPI as free from *Xylella fastidiosa*
- 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*"

<sup>1</sup>Implementation of measures:

For consignments with a phytosanitary certificate issued no later than <u>24 May 2018</u>, the requirements for *Phytophthora capsici* and *P. palmivora* are not mandatory.

For consignments with a phytosanitary certificate issued <u>on or after 25 May 2018</u> the requirements for *Phytophthora capsici* and *P. palmivora* <u>must</u> be met.

## Fortunella

- **Note:** The entry conditions in this schedule only apply to species in the Plants Biosecurity Index listed under Import Specifications for Nursery Stock as "see 155.02.06 under *Fortunella*", and are additional to those specified in sections 1, 2 and 3 of the import health standard.
- **1.** Type of *Fortunella* nursery stock approved for entry into New Zealand Cuttings (dormant); Plants in tissue culture

## 2. Pests of Fortunella

Refer to the pest list.

## 3. Entry conditions for:

## 3.1 *Fortunella* cuttings from offshore 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) <u>Phytosanitary requirements</u>

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 MPIaccredited facility

AND

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

Level 2. Plants must be held at 18-25°C throughout the quarantine period. PEO: This is the time required to complete inspections and/or indexing **Quarantine Period**: 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 3B MPI-accredited facility. Refer to *Fortunella* Inspection, Testing and Treatment Requirements following the *Fortunella* pest list.

## (v) *Post-entry quarantine*

## **PEQ**: Level 3B

**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) <u>Pest proof container and growing media for tissue culture</u>

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) <u>Phytosanitary requirements</u>

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 MPIaccredited 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) <u>*Documentation*</u>

## 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) <u>Pest proof container and growing media for tissue culture</u>

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) <u>Phytosanitary requirements</u>

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 3B MPI-accredited facility. Refer to *Fortunella* Inspection, Testing and Treatment Requirements following the *Fortunella* pest list.

## (vi) Post-entry quarantine

## **PEQ**: Level 3B

**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.	-

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

Aleuroplatus sp. Aleurothrixus floccosus Aleurotuba jelinekii Aleurotuberculatus aucubae Bemisia citricola Dialeurodes citri Dialeurodes citrifolii Dialeurolonga sp. Parabemisia myricae Siphoninus phillyreae Aphididae Aphis fabae Aulacorthum magnoliae Cicadellidae Asymmetrasca decedens Circulifer opacipennis Circulifer tenellus Cuerna costalis Edwardsiana flavescens Empoasca bodenheimeri Empoasca citrusa Empoasca decipiens Empoasca distinguenda Empoasca fabae Empoasca onukii Homalodisca coagulata Homalodisca lacerta Jacobiasca lybica Neoaliturus haematoceps Penthimiola bella Scaphytopius nitridus Cicadidae Cryptotympana facialis Meimuna opalifera Coccidae Ceroplastes floridensis Ceroplastes japonicus Ceroplastes rubens Ceroplastes rusci Coccus celatus Coccus pseudomagnoliarum Coccus viridis Cribrolecanium andersoni Gascardia brevicauda Protopulvinaria pyriformis Pulvinaria aethiopica Pulvinaria aurantii Pulvinaria cellulosa Saissetia citricola Saissetia somereni Dactylopiidae Dactylopius filamentosis Dactylopius vastator Diaspididae Aonidiella citrina Chrysomphalus aonidum Chrysomphalus bifasciculatus Chrysomphalus dictyospermi Chrysomphalus pinnulifera Ischnaspis longirostris

whitefly woolly whitefly aucuba whitefly citrus whitefly cloudywinged whitefly Japanese bayberry whitefly phillyrea whitefly bean aphid Japanese elder aphid leafhopper beet leafhopper leafhopper leafhopper green citrus leafhopper green leafhopper potato leafhopper tea green leafhopper glassy-winged sharpshooter cotton jassid leafhopper citrus leafhopper leafhopper black cicada elongate cicada Florida wax scale pink wax scale red wax scale fig wax scale citricola scale green scale white powdery scale white waxy scale pyriform scale soft green scale citrus cottony scale pulvinaria scale citrus string cottony scale vellow scale Florida red scale brown scale dictyospermum scale false purple scale

black thread scale

Lepidosaphes beckii Lepidosaphes gloverii Parlatoria ziziphi Pseudaonidia duplex Selenaspidus articulatus Unaspis citri Unaspis yanonensis Flatidae Colgar peracuta Geisha distinctissima Lawana conspersa Metcalfa pruinosa Fulgoridae Anzora unicolor Margarodidae Drosicha howardi Icerya seychellarum Ortheziidae Nipponorthezia ardisiae Pseudococcidae Allococcus spp. Ferrisia consobrina Ferrisia virgata Nipaecoccus vastator Nipaecoccus viridis Paracoccus burnerae Planococcus kraunhiae Planococcus lilacinus Planococcus minor Pseudococcus citriculus Pseudococcus commonus Pseudococcus filamentosus Rastrococcus spinosus Rhizoecus kondonis **Psyllidae** Diaphorina citri Trioza erytreae [vector] Ricaniidae *Scolypopa* sp. Tropiduchidae Tambinia sp. Hymenoptera Aphelinidae Aphytis africanus [Animals Biosecurity] Aphytis holoxanthus [Animals Biosecurity] Aphytis lepidosaphes [Animals Biosecurity] Aphytis lingnanensis [Animals Biosecurity] Aphytis melinus [Animals Biosecurity] Azotus platensis [Animals Biosecurity] Cales noacki [Animals Biosecurity] Cales orchamoplati [Animals Biosecurity] *Centrodora penthimiae* [Animals Biosecurity] Coccophagus caridei [Animals Biosecurity] Coccophagus pulvinariae [Animals Biosecurity] Encarsia ectophaga [Animals Biosecurity] Encarsia lahorensis [Animals Biosecurity] Encarsia lounsburyi [Animals Biosecurity] *Encarsia opulenta* [Animals Biosecurity] Encarsia smithi [Animals Biosecurity] Eretmocerus serius [Animals Biosecurity]

purple scale Glover scale black parlatoria scale camphor scale West Indian red scale citrus snow scale Japanese citrus scale

green broad-winged planthopper green flatid planthopper planthopper

persimmon mealybug Seychelles scale

ensign scale

mealybug striped mealybug nipa mealybug hibiscus mealybug spherical mealybug Japanese wisteria mealybug citrus mealybug passionvine mealybug smaller citrus mealybug

mealybug mealybug Kondo mealybug

citrus psyllid citrus psyllid

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

Trichogramma platneri [Animals Biosecurity] Vespidae Polistes spp. [Animals Biosecurity] Isoptera Termitidae Odontotermes lokanandi Lepidoptera Arctiidae Lemyra imparilis Blastobasidae Holcocera iceryaeella Cosmopterigidae Pyroderces rileyi Geometridae Anacamptodes fragilaria Ascotis selenaria reciprocaria Gymnoscelis rufifasciata Hyposidra talaca Gracillariidae Phyllocnistis citrella Hepialidae Endoclita excrescens Endoclita sinensis Lycaenidae Virachola isocrates Lymantriidae Orgyia vetusta Metarbelidae Indarbela tetraonis Noctuidae Arcte coerula Eudocima fullonia Helicoverpa assulta Helicoverpa punctigera Tiracola plagiata Xylomyges curialis Nymphalidae Charaxes jasius **Oecophoridae** Psorosticha melanocrepida Psorosticha zizyphi Stathmopoda auriferella Papilionidae Papilio aegeus aegeus Papilio anactus Papilio cresphontes Papilio dardanus cenea Papilio demodocus Papilio demoleus demoleus Papilio helenus nicconicolens Papilio machaon asiatica Papilio memnon Papilio memnon thunbergii Papilio nireus lyaeus Papilio polytes polytes Papilio protenor demetrius Papilio xuthus Papilio zelicaon **Psychidae** Eumeta hardenbergi

paper wasps termite mulberry tiger moth pink scavenger caterpillar koa haole looper citrus looper geometrid moth citrus leafminer Japanese swift moth pomegranate butterfly western tussock moth stem borer fruit-piercing moth fruit-piercing moth cape gooseberry budworm oriental tobacco budworm banana fruit caterpillar noctuid moth nymphalid butterfly citrus leafroller citrus leafroller apple heliodinid small citrus butterfly orange dog orange dog citrus swallowtail citrus swallowtail anise swallowtail

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

elegant grasshopper Japanese broadwinged katydid smaller angular-winged katydid fork-tailed bush katydid

Ministry for Primary Industries Import Health Standard 155.02.06: Importation of Nursery Stock

#### Unknown Insecta

Cosmophyllum pallidulum

Mite Arachnida Acarina Acaridae Thyreophagus entomophagus italicus [Animals Biosecurity] Anystidae Anystis agilis [Animals Biosecurity] Eriophyidae Aculops pelekassi eriophyid mite brown citrus mite Tegolophus australis 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 false spider mite Brevipalpus chilensis 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 Yumi spider mite Eotetranychus yumensis Eutetranychus africanus tetranychid mite Eutetranychus banksi Texus citrus mite pear leaf blister mite Eutetranychus orientalis Oligonychus mangiferus mango spider mite Tetranychus kanzawai kanzawa mite Tuckerellidae Tuckerella knorri hawthorn spider mite Spider Arachnida Araneae Clubionidae Cheiracanthium mildei [Animals Biosecurity] Theridiidae Theridion sp. [Animals Biosecurity]

#### Mollusc Gastropoda

Stylommatophora Achatinidae	
Achatina immaculata	_
Lissachatina immaculata	snail
Bradybaenidae	
Acusta despecta sieboldiana	snail
Subulinidae	
Rumina decollata	snail
Urocyclidae	
Urocyclus flavescens	-
Urocyclus kirkii	-
Fungus	
Ascomycota	
Diaporthales	
Valsaceae	
Diaporthe rudis (anamorph Phomopsis rudis)	phomopsis canker
Dothideales	1 1
Elsinoaceae	
Elsinoe australis	sweet orange scab
Capnodiaceae	-
Capnodium citri	sooty mould
Didymosphaeriaceae	
Didymosphaeria sp.	
Mycosphaerellaceae	
Guignardia citricarpa (anamorph Phyllosticta	citrus black spot
<i>citricarpa</i> ) [black spot strain]	
Mycosphaerella citri (anamorph Stenella citri-grisea)	rind blotch
Mycosphaerella horii	greasy spot
Patellariales	
Patellariaceae	
Rhytidhysteron rufulum	
Saccharomycetales Saccharomycetaceae	
Debaryomyces hansenii	_
Galactomyces citri-aurantii (anamorph Geotrichum	sour rot
citri-aurantii)	sour rot
Basidiomycota: Agaricomycetes	
Hymenochaetales	
Hymenochaetaceae	
Phellinus noxius	brown root rot
Basidiomycota: Basidiomycetes	
Boletales	
Coniophoraceae	
Coniophora eremophila	brown wood rot
Basidiomycota: Teliomycetes	
Septobasidiales	
Septobasidiaceae	
Septobasidium pseudopedicellatum	felt fungus
Mitosporic Fungi	
Unknown Mitosporic Fungi	
Unknown Mitosporic Fungi	
Sphaceloma fawcettii var. scabiosa Mitosporio Eurogi (Coolomyaotos)	-
Mitosporic Fungi (Coelomycetes) Sphaeropsidales	
Sphaerioidaceae	
Macrophoma mantegazziana	_
Phoma erratica var. mikan	
Phoma tracheiphila	mal secco
Phomopsis sp.	rot
1 1	

Septoria spp.	_
Sphaeropsis tumefaciens	stem gall
Unknown Coelomycetes	stem gan
Unknown Coelomycetes	
Aschersonia placenta [Animals Biosecurity]	
	 fruit rot
Gloeosporium foliicolum	ITuit Iot
Mitosporic Fungi (Hyphomycetes)	
Hyphomycetales Dematiaceae	
Alternaria limicola	-
Alternaria pellucida	
Cercospora microsora	-
Phaeoramularia angolensis	cercospora spot
Stemphylium rosarium	
Ulocladium obovoideum	ulocladium rot
Unknown Hyphomycetes	
Unknown Hyphomycetes	
Aureobasidium sp.	-
Hirsutella thompsonii [Animals Biosecurity]	
Isaria sp. [Animals Biosecurity]	
Oidium tingitaninum	powdery mildew
Sporobolomyces roseus	
<i>Stenella</i> sp.	
Zygomycota: Zygomycetes	
Glomales	
Glomaceae	
Glomus etunicatum [Animals Biosecurity]	
Mucorales	
Syncephalastraceae	
Syncephalastrum racemosum	
Bacterium	
Bacterium family unknown	
Liberobacter africanum	citrus greening bacterium
Liberobacter asiaticum	citrus greening bacterium
Liberobacter sp.	citrus greening bacterium
Spiroplasma citri	citrus stubborn
Pseudomonadaceae	
Burkholderia cepacia	sour skin
Xanthomonas axonopodis pv. citri	citrus canker
Xanthomonas campestris pv. aurantifolii	-
Xanthomonas campestris pv. citrumelo	citrus bacterial spot
Xylella fastidiosa	Pierce's disease
Xylella fastidiosa pv. citri	variegated chlorosis of citrus
<b>X</b> 74	
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	
rustianan en as areoaek	-
blind pocket	-
	-
blind pocket	
blind pocket bud union disease	
blind pocket bud union disease citrus blight disease	
blind pocket bud union disease citrus blight disease citrus fatal yellows	- - - - -
blind pocket bud union disease citrus blight disease citrus fatal yellows citrus impietratura disease	- - - - - -
blind pocket bud union disease citrus blight disease citrus fatal yellows citrus impietratura disease citrus sunken vein disease	- - - - - - -
blind pocket bud union disease citrus blight disease citrus fatal yellows citrus impietratura disease citrus sunken vein disease concave gum	- - - - - - - -
blind pocket bud union disease citrus blight disease citrus fatal yellows citrus impietratura disease citrus sunken vein disease concave gum cristacortis	- - - - - - - - -
blind pocket bud union disease citrus blight disease citrus fatal yellows citrus impietratura disease citrus sunken vein disease concave gum cristacortis gum pocket	- - - - - - - - - -

-

-

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
moteus	the basic conditions).
Mites	Visual inspection AND approved miticide treatments (Refer to section 2.2.1.6 of the
1111005	basic conditions).
Fungus	Country freedom OR growing season inspection for symptom expression.
Bacterium	Country needom on growing season inspection for symptom expression.
Burkholderia cepacia	Growing season inspection for symptom expression.
Liberobacter africanum	Country freedom OR graft-inoculated sweet oranges, orange pineapple, 18 to 25°C.
Liberobacter asiaticum	Country freedom OR graft-inoculated sweet oranges, orange pineapple, 18 to 25°C.
Spiroplasma citri	Country freedom/shoot tip grafting. Graft inoculated sweet orange, 27 to 32°C.
I I I I I I I I I I I I I I I I I I I	Bioassay = culture petiole new flush tissue. Collect tissue after several days at hot
	temperature (> $30^{\circ}$ C) and incubate cultures at $32^{\circ}$ C.
Xanthomonas	Country freedom/shoot tip grafting bioassay/detached leaf bioassay/ PCR OR suitable
axonopodis pv. citri	citrus indicator.
Xanthomonas campestris	Country freedom/shoot tip grafting bioassay/detached leaf bioassay/ PCR OR suitable
pv. aurantifolii	citrus indicator.
$Xan thomonas\ campestris$	Country freedom/shoot tip grafting bioassay/detached leaf bioassay/ PCR OR suitable
pv. <i>citrumelo</i>	citrus indicator.
Xylella fastidiosa	Country freedom/shoot tip grafting bioassay/ PCR/ELISA OR suitable citrus
	indicator.
<i>Xylella fastidiosa</i> pv.	Country freedom/shoot tip grafting bioassay PCR/ELISA OR suitable citrus
citri	indicator.
Virus	
citrus chlorotic dwarf	Country freedom OR graft inoculated rough lemon at cool temperatures temperatures
aitum a in fa ati ana	18 to 25°C.
citrus infectious	Country freedom OR graft inoculated citron, sour orange, lemon, cidro etrog. Grow indicators at cool temperatures 18 to 25°C.
variegation ilarvirus citrus infectious	Country freedom OR graft inoculated citron, sour orange, lemon, cidro etrog. Grow
variegation ilarvirus	indicators at cool temperatures 18 to 25°C.
[crinkly leaf strain]	
citrus leaf rugose	Country freedom OR graft inoculated Mexican lime or sour orange. Grow indicators
ilarvirus	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	Country freedom OR graft inoculated sweet orange. Grow indicators at cool
rhabdovirus	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	Country freedom OR graft inoculated Rusk citrange, rough lemon, Citrus excelsa,
capillovirus	citrange (Troyer). Grow indicators at cool temperatures 18 to 25°C.
citrus tristeza	Country freedom OR ELISA, graft inoculated Mexican lime, sour orange and <i>Citrus</i>
closterovirus [strains not	excelsa. Grow indicators at cool temperatures 18 to 25°C.
in New Zealand]	Country freedom OP graft incoulated sweet arange, sour arange and sitron
citrus yellow mosaic badnavirus	Country freedom OR graft inoculated sweet orange, sour orange and citron.
citrus yellow mottle	Country freedom OR other suitable test.
virus	
Indian citrus mosaic	Country freedom OR graft inoculated sweet orange at hot temperature 27 to 32°C.
badnavirus	county needoni on gran movanice sweet orange at not temperature 27 to 52°C.
navel orange infectious	Country freedom OR graft inoculated Satsums. Grow indicators at cool temperatures
mottling virus	18 to 25°C.
satsuma dwarf nepovirus	Country freedom OR graft inoculated satsums. Grow indicators at cool temperatures

ORGANISM TYPES	MPI ACCEPTABLE METHODS
satsuma dwarf nepovirus	Country freedom OR graft inoculated satsums. Grow indicators at cool temperatures
[Natsudaidai dwarf	18 to 25°C.
strain]	
yellow vein clearing of	Country freedom OR graft inoculated Mexican lime or sour orange. Grow indicators
lemon	at cool temperatures 18 to 25°C.
Viroid	
citrus cachexia viroid	Country freedom OR SPAGE and PCR on graft inoculated citron extract. Grow citron
l	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-	Country freedom OR SPAGE and PCR on graft inoculated citron extract. Grow citron
IV)	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 aeti	ology
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
0	before releasing from quarantine.
citrus fatal yellows	Country freedom OR graft inoculated Citrus macrophylla.
citrus impietratura	Country freedom OR graft inoculated dweet tangor or sweet orange. Growth
disease	indicators at cool temperatures 18 to 25°C.
citrus sunken vein	Country freedom OR other suitable test.
disease	
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	Country freedom OR other suitable test.
necrosis	
shell bark of lemons	Country freedom OR other suitable test.
zonate chlorosis	Country freedom, cuttings collected from kassala free area.
Phytoplasma	
Candidatus phytoplasma	Country freedom OR graft inoculated lime. Grow indicators at cool temperatures 18
aurantifolia	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 *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 3B 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) <u>Post-entry quarantine</u>

**PEQ**: All *Fragaria* nursery stock must be imported under permit into post-entry quarantine in a Level 2 greenhouse facility accredited to the Facility Standard: Post Entry Quarantine for Plants (MPI.STD.PEQ).

**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. 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) <u>Phytosanitary requirements</u>

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) <u>Post-entry quarantine</u>

**PEQ**: All *Fragaria* nursery stock must be imported under permit into post-entry quarantine in a Level 3B greenhouse facility accredited to the Facility Standard: Post Entry Quarantine for Plants (MPI.STD.PEQ).

**Quarantine Period and Inspection, Testing and Treatment Requirements**: 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
Bruchidae
Zabrotes arenarius
Cantharidae
Chauliognathus lugubris
Carabidae
Calathus fuscipes
Harpalus affinis
Harpalus rufipes
Nebria brevicollis
Pterostichus cupreus
Pterostichus madidus
Pterostichus melanarius
Chrysomelidae
Altica caerulescens
Chaetocnema concinna
Colaspis flavida
Galeruca tanaceti
Galerucella grisescens
Galerucella tenella
Haltica corrusca
Haltica pagana
Paria fragariae
Systena frontalis
Curculionidae
Anthonomus rubi
Anthonomus signatus Apirocalus spp.
Barypeithes pellucidus
Cleonus kirbyi
Conotrachelus nenuphar
Donus salviae
Dyslobus decoratus
Dyslobus ursinus
Dyslobus wilcoxi
Geoderces spp.
Haplidia etrusca
Hypera brunneipennis
Myllocerus undecimpustulatus
Nemocestes fragariae
Nemocestes incomptus
Nemocestes longulus
Nemocestes sordidus
Orthorhinus aethops
Otiorhynchus armatus
Otiorhynchus clavipes
Otiorhynchus cribricollis
Otiorhynchus meridionalis Otiorhynchus rotundatus
Otiorhynchus rotunatius Otiorhynchus rugifrons
Otiorhynchus singularis

strawberry rhynchites strawberry weevil soldier beetle ground beetle strawberry seed beetle strawberry seed beetle common black ground beetle strawberry ground beetle strawberry ground beetle strawberry ground beetle leaf beetle leaf feeding beetle grape colaspis strawberry leaf beetle strawberry leaf beetle strawberry leaf beetle fles beetle flea beetle strawberry rootworm flea beetle strawberry blossom weevil strawberry bud weevil weevils strawberry weevil radish weevil plum weevil strawberry weevil decorated strawberry root weevil western strawberry root weevil Lacomb strawberry root weevil root weevil root weevil Egyptian alfalfa weevil grey weevil strawberry root weevil woods weevil strawberry root weevil strawberry root weevil weevil strawberry root weevil red-legged weevil

cribrate weevil strawberry root weevil strawberry root weevil strawberry root weevil strawberry root weevil

Panscopus torpidus Peritelopsis globiventris Plinthodes taeniatus Polydrusus cervinus Polydrusus sericeus Rhadinosomus lacordairei Rhinaria perdix Rhynchites germanicus Sciaphilus asperatus Sciopithes obscurus Sitona hispidulus Strophomorphus porcellus Thricolepis inornata Trigonoscuta pilosa Tyloderma fragariae Elateridae Agriotes spp. (species not in New Zealand) Nitidulidae Carpophilus fumatus Glischrochilus hortensis Lobiopa insularis Stelidota spp. Stelidota geminata Scarabaeidae Anoplognathus porosus Cetonia spp. Cyclocephala borealis Hoplia spp. Lepidiota frenchi Melolontha melolontha Metanastes vulgivagus Phyllopertha horticola Phyllophaga decimlineata Phyllophaga perversa Popillia japonica Repsimus aeneus Rhopaea magnicornis Serica spp. Sericesthis geminata Sericesthis nigrolineata Scolvtidae Poecilips cardamomi Silphidae Heterosilpha aenescens Collembola Sminthuridae Bourletiella arvalis dorsobscura Sminthurus multidentatus Diptera Agromyzidae Agromyza fragariae Agromyza spiraeae Tipulidae Tipula spp Hemiptera Anthocoridae Orius laevigatus Lygaeidae Euander lacertosus Nysius clevelandensis

root weevil grey weevil root weevil weevil green leaf weevil thin strawberry weevil strawberry weevil strawberry rhynchites strawberry root weevil obscure root weevil root weevil weevil root weevil root weevil strawberry crown borer click beetles sap beetle sap beetle strawberry borer sap beetles strawberry sap beetle Christmas beetle chafers northern masked chafer white grubs French's cane grub cockchafer black beetle garden chafer ten-lined June beetle western ten-lined June beetle Japanese beetle white grub large pasture scarab white grubs priunose scarab dusky pasture scarab bark beetle carrion beetle garden springtail garden springtail strawberry leafminer rose leafminer leatherjackets plant bug lygaeid bug grey cluster bug

Nysius spp. Nysius vinitor Miridae Calocoris hobartensis Lygocoris pabulinus Lygus elisus Lygus hesperus Lygus lineolaris Lygus rugulipennis Plagiognathus arbustorum Plagiognathus chrysanthemi Scolopostethus spp. Pentatomidae Acrosternum hilare Dolycoris baccarum Pyrrhocoridae Dindymus versicolor Homoptera Alevrodidae Aleyrodes lonicerae Trialeurodes fernaldi Trialeurodes packardi Trialeurodes ruborum Aphididae Acyrthosiphon malvae rogersii Amphorophora agathonica Aphis fabae Aphis forbesi Aphis gossypii [vector] Aphis rubifolii Aulacorthum solani [vector] Chaetosiphon jacobi Chaetosiphon minus Chaetosiphon tetrarhodum [vector] Chaetosiphon thomasi Fimbriaphis fimbriata Fimbriaphis wakibae Macrosiphum pelargonii Macrosiphum rosae [vector] Myzaphis rosarum [vector] Myzus ascalonicus [vector] Myzus ornatus [vector] Myzus persicae [vector] Rhodobium porosum Aphrophoridae Aphrophora alni Aphrophora permutata Cercopidae Cercopis vulnerata Emelyanoviana mollicula Evacanthus interruptus Philaenus leucophthalmus Cicadellidae Aphrodes bicinctus Apogonalia grossa Coelidia olitoria Edwardsiana spp. Empoasca fabae Erythroneura elegantula Euscelis spp.

bugs Rutherglen bug capsid common green capsid pale legume bug tarnished plant bug tarnished plant bug tarnished plant bug stink bug stink bug plant bugs green stink bug stink bug harlequin bug strawberry whitefly whitefly strawberry whitefly whitefly strawberry aphid strawberry aphid bean aphid strawberry root aphid cotton aphid raspberry aphid foxglove aphid strawberry aphid lesser strawberry aphid strawberry aphid strawberry aphid rose aphid rose aphid rose aphid rose aphid lesser rose aphid shallot aphid ornate aphid green peach aphid aphid spittlebug rhubarb spittlebug red and black froghopper spittlebug spittlebug spittlebug strawberry leafhopper leafhopper leafhopper leafhoppers potato leafhopper western grape leafhopper leafhoppers

Macrosteles spp. Scaphytopius acutus Zygina schneideri Pseudococcidae Chorizococcus arecae Dysmicoccus brevipes Planococcus citri Rhizoecus kondonis **Hymenoptera** Tenthredinidae Allantus calceatus Allantus cinctus Cladius pectinicornis Lepidoptera Gelechiidae Aristotelia fragariae Compsolechia fragariella Geometridae Ascotis selenaria Hepialidae Hepialus lupulinus Noctuidae Agrotis spp. (species not in New Zealand) Agrotis munda Agrotis segetum Amphipoea interoceanica Helicoverpa punctigera Helicoverpa zea Hydraecia interoceanica Noctua pronuba Orthosia hibisci Peridroma saucia Phlogophora meticulosa Spodoptera exigua Spodoptera sunia Xestia c-nigrum Psychidae Hyalarcta huebneri **Pvralidae** Loxostege spp. Udea rubigalis Sesiidae Synanthedon bibionipennis Tortricidae Acleris comariana Ancylis comptana Ancylis fragariae Argyrotaenia citrana Cacoecimorpha pronubana Choristoneura lafauryana Choristoneura rosaceana Claremontia confusa Clepsis busckana Clepsis spectrana Cnephasia asseclana Cnephasia longana Cnephasia stephensiana Compsolechia fragariella Cryptoptila immersana Epiphyas spp.

leafhoppers leafhopper leafhopper mealybug pineapple mealybug citrus mealybug Kondo mealybug sawfly curled rose sawfly antler sawfly strawberry crown miner western strawberry leafroller mugwort looper swift moth cutworms brown cutworm turnip moth strawberry cutworm oriental tobacco budworm bollworm noctuid moth large yellow underwing speckled green fruitworm pearly underwing moth angleshades moth lesser armyworm cluster caterpillar spotted cutworm leaf case moth pyralid moths celery leaftier strawberry crown moth strawberry tortrix moth strawberry leafroller strawberry leafroller orange tortrix carnation leafroller strawberry leafroller oblique-banded leafroller leafroller cyclamen leafroller straw coloured tortrix leafroller omnivorous leaftier leaftier western strawberry leafroller ivy leafroller leafrollers

Lozotaenia forsterana Olethreutes lacunana Olethreutes olivaceana Pandemis dumetana Platynota stultana Ptycholoma peritana Sparganothis sulfureana **Orthoptera** Acrididae Phaulacridium vittatum Gryllotalpidae Gryllotalpa africana Gryllotalpa gryllotalpa Scapteriscus acletus Scapteriscus vicinus **Pyrgomorphidae** Atractomorpha crenaticeps **Thysanoptera** Thripidae Scirtothrips dorsalis Scolothrips sexmaculatus Thrips atratus Thrips major Mites Arachnida Acarina Diptilomiopidae Diptacus fragarifoliae Tetranychidae Tetranychus kanzawai Tetranychus lobustus Tetranychus neocalendonicus Tetranychus pacificus Nematodes Adenophorea Dorvlaimida Longidoridae Longidorus elongatus [vector] Longidorus sylphus Paralongidorus maximus Xiphinema americanum [Vector] Xiphinema chambersi Xiphinema diversicaudatum [vector] Secernentea Tylenchida Aphelenchoididae Aphelenchoides besseyi Belonolaimidae Belonolaimus gracilis Criconematidae Criconemoides curvatum Criconemoides lobatum Dolichodoridae Tylenchorhynchus claytoni Heteroderidae Heterodera spp. Hoplolaimidae Hoplolaimus spp.

leafroller fruit tree tortrix fruit tree tortrix fruit tree tortrix omnivorous leafroller garden tortrix blueberry leafroller wingless grasshopper African mole cricket mole cricket southern mole cricket tawny mole cricket grasshopper chilli thrips carnation thrips rose thrips false spider mite kanzawaii mite strawberry spider mite Mexican spider mite Pacific spider mite needle nematode needle nematode dagger nematode dagger nematode dagger nematode rice white-tip nematode sting nematode ring nematode ring nematode tobacco stunt nematode cyst nematode crown-headed lance nematode

Ministry for Primary Industries Import Health Standard 155.02.06: Importation of Nursery Stock

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

Phragmidium mexicana Phragmidium potentiallae	leaf rust
Chytridiomycota	learrust
Chytridiales	
Synchytriaceae	
Synchytrium fragariae	root gall
Mitosporic Fungi (Agonomycetes)	Toot gan
Agonomycetales	
Unknown Agonomycetales Rhizoctonia fragariae	fruit and root rot
	If ult and root rot
Mitosporic Fungi (Coelomycetes)	
Sphaeropsidales	
Leptostromataceae	loof anot
Kabatia fragariae	leaf spot
Sphaerioidaceae	flower anot
Coniella fragariae	flower spot
Phyllosticta fragaricola	phyllosticta leaf spot
Rhabdospora fragariae	leaf spot
Septoria fragariae	septoria spot
Septoria fragariaecola	septoria spot
Stagonospora fragariae	stagonospora
Unknown Coelomycetes	
Unknown Coelomycetes	
Colletotrichum spp. (species not in New Zealand)	
Glomerella cingulata (anamorph Colletotrichum	strawberry anthracnose
gloeosporioides)	1
Marssonina canadensis	leaf scorch
Marssonina pakistanica	leaf scorch
Marssonina potentillae	leaf scorch
Pestalotia longisetula	leaf spot
Pilidiella quercola	schizoparme fruit rot
Mitosporic Fungi (Hyphomycetes)	
Hyphomycetales	
Dematiaceae	1 6 4
Cercospora fragariae	leaf spot
Cercospora vexans	cercospora leaf spot
Idriella lunata	root rot
Moniliaceae	
Ramularia fragariae	ramularia leaf spot
Verticillium albo-atrum [severe strain]	progressive wilt
Tuberculariales	
Tuberculariaceae	. 1 . 1.
Fusarium oxysporum f. sp. fragariae	stub wilt
Oomycota	
Peronosporales	
Peronosporaceae	1
Peronospora fragariae	downy mildew
Phytophthora capsici	fruit rot of peppers
Pythiales	
Pythiaceae	
Pythium debaryanum	root rot
Pythium dissotocum	root rot
Pythium hypogynum	root rot
Pythium perniciosum	root and stem rot
Pythium sylvaticum	root rot
Zygomycota: Zygomycetes	
Mucorales	
Mucoraceae	
Mucor recurvus	mucor rot
Rhizopus spp.	

#### Bacteria

-

Erwinia pyrifoliae Ralstonia solanacearum (Race 2) Strawberry marginal chlorosis ['Candidatus phlomobacter fragariae'] Strawberry rickettsia yellows Xanthomonas arboricola pv. fragariae Xanthomonas fragariae Xylella fastidiosa\*

#### Viruses

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

#### 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 bacterial leaf blight angular leaf spot

moko disease

Pierce's disease

Page 175 25 January 2019 \* For organisms intercepted that are not listed within this pest list refer to the <u>http://mpi.govt.nz/news-and-resources/resources/registers-and-lists/biosecurity-organisms-register-for-imported-commodities</u> 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 <u>basic conditions</u> of the Import Health Standard Nursery Stock from
	All countries [cuttings only]
Mites	Visual inspection AND approved miticide treatments as described in
	the <u>basic conditions</u> of the Import Health Standard Nursery Stock from
	All countries. [cuttings only] or binocular microscope inspection in
	PEQ [plants in vitro only]
Nematodes	Growing season inspection in PEQ for symptoms of foliar nematodes
Fungi	All cuttings must be dipped in 1% sodium hypochlorite for 2 minutes
	upon arrival in the post entry quarantine facility.
	Growing season inspection in PEQ for symptom expression
Oomycete	All cuttings must be dipped in 1% sodium hypochlorite for 2 minutes
	upon arrival in the post entry quarantine facility.
	Growing season inspection in PEQ for symptom expression
Bacteria (and diseases caused by	All cuttings must be dipped in 1% sodium hypochlorite for 2 minutes
bacteria-like organisms)	upon arrival in the post entry quarantine facility.
Erwinia pyrifoliae	Growing season inspection for symptom expression and PCR
Ralstonia solanacearum (Race 2)	Growing season inspection for symptom expression.
Strawberry marginal chlorosis	Growing season inspection for symptom expression AND PCR
('Candidatus phlomobacter fragariae')	
Strawberry rickettsia yellows	Growing season inspection for symptom expression
Xanthomonas arboricola pv. fragariae	Growing season inspection for symptom expression AND PCR
Xanthomonas fragariae	Growing season inspection for symptom expression AND PCR
Xylella fastidiosa	Growing season inspection in PEQ for disease symptom expression AND PCR
Viruses	
Fragaria chiloensis latent virus	Herbaceous indicators (Chenopodium quinoa and Cucumis sativus)
[strains not in New Zealand]	
Raspberry ringspot virus	Herbaceous indicator (Chenopodium quinoa) AND ELISA or PCR
Strawberry chlorotic fleck virus	Graft inoculation (Fragaria vesca cl. EMB or EMK)
Strawberry latent C virus	Graft inoculation (Fragaria vesca cl. EMC or UC5)
Strawberry latent ringspot virus	Herbaceous indicators (Chenopodium quinoa and Cucumis sativus)
[strains not in New Zealand]	AND ELISA or PCR
Strawberry mild yellow edge-	Graft inoculation (2 indicators; Fragaria vesca cl. UC4 or UC5, or cv.
associated virus	Alpine
Strawberry pallidosis associated virus	Graft inoculation (Fragaria virginiana cl. UC10 or UC11)
Strawberry pseudo mild yellow edge	Graft inoculation (Fragaria vesca cl.UC4 or cv. Alpine. or Fragaria
virus	virginiana cl. UC12)
Strawberry vein banding virus	Graft inoculation (Fragaria vesca cl.UC5 or UC6, or cv. Alpine. or
	Fragaria virginiana cl. UC12) AND PCR
Tobacco necrosis virus [strains not in	Herbaceous indicators (Chenopodium quinoa and Cucumis sativus)
New Zealand]	AND ELISA or PCR
Tobacco streak virus [strains not in	Herbaceous indicators (Chenopodium quinoa
New Zealand]	and Cucumis sativus)
Tomato bushy stunt virus	Herbaceous indicator (Chenopodium quinoa)
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	Growing season inspection in the nested i error for that time i er
Strawberry feather leaf disease	Graft inoculation (Fragaria vesca cl. UC1 or UC4, or cv. Alpine)
Strawberry lethal decline disease	Graft inoculation (Fragaria vesca 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 <u>other than</u> 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 *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)
   Guidance for importers: The minimum quarantine period will be <u>6 months</u> for nursery stock sourced from countries <u>not</u> recognised by MPI as free from *Xylella fastidiosa*
- c. Additional declaration:
  - "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

 a. Conditions for *Xylella fastidiosa* on tissue culture (see section 2.2.2.5)
 Guidance for importers: There will be a minimum quarantine period of <u>6 months in a Level 2 PEQ</u> greenhouse, for tissue cultures from countries <u>not</u> recognised by MPI as free from *Xylella fastidiosa*. **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.

**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., Phytophthora capsici, Phytophthora palmivora, Phytophthora tentaculata

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

A. For Whole PlantsPEQ: Level 2Minimum Period: 3 months

a. 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. Conditions for *Phytophthora capsici*<sup>1</sup> Note: Only applies to the following genus: *Gypsophila* 

One of the following Additional Declarations must be endorsed on the phytosanitary certificate:

"The [insert species name] plants in this consignment have been sourced from [insert country name], which is free from *Phytophthora capsici*".

#### OR

"The [insert species name] plants in this consignment were produced in a "pest free area" for *Phytophthora capsici*".

#### OR

"The [insert species name] plants in this consignment were produced in a "pest free place of production" for *Phytophthora capsici*".

### c. Conditions for *Phytophthora palmivora*<sup>1</sup>

Note: Only applies to the following genus: Gerbera

One of the following Additional Declarations must be endorsed on the phytosanitary certificate:

"The [insert species name] plants in this consignment have been sourced from [insert country name], which is free from *Phytophthora palmivora*".

#### OR

"The [insert species name] plants in this consignment were produced in a "pest free area" for *Phytophthora palmivora*".

#### OR

"The [insert species name] plants in this consignment were produced in a "pest free place of production" for *Phytophthora palmivora*".

d. Conditions for *Phytophthora tentaculata*<sup>1</sup> **Note:** Only applies to the following genus: *Gerbera* 

One of the following Additional Declarations must be endorsed on the phytosanitary certificate:

"The [insert species name] plants in this consignment have been sourced from [insert country name], which is free from *Phytophthora tentaculata*".

#### OR

"The [insert species name] plants in this consignment were produced in a "pest free area" for *Phytophthora tentaculata*".

#### OR

"The [insert species name] plants in this consignment were produced in a "pest free place of production" for *Phytophthora tentaculata*".

#### **B.** For Tissue Cultures

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

<sup>1</sup>Implementation of measures:

For consignments with a phytosanitary certificate issued on or after 25 May 2018 the requirements for *Phytophthora capsici*, *P. palmivora* and *P. tentaculata* <u>must</u> be met.

For consignments with a phytosanitary certificate issued no later than <u>24 May 2018</u>, the requirements for *Phytophthora capsici*, *P. palmivora* and *P. tentaculata* are not mandatory.

#### 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 <u>other than</u> 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 *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.

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

#### **GENERAL CONDITIONS:**

#### Approved Countries: All

**Quarantine Pests:** *Phellinus noxius, Phytophthora capsici, Phytophthora palmivora, Phytophthora tentaculata, 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)
   Guidance for importers: The minimum quarantine period will be <u>6 months</u> for nursery stock sourced from countries <u>not</u> recognised by MPI as free from *Xylella fastidiosa*
- b. Conditions for *Phellinus noxius* (section 2.2.1.13) Note: Only applies to members of the *Albizia* and *Cassia* genera AND the following species: *Agathis* robusta, *Celtis sinensis, Grevillea robusta, Hibiscus rosa-sinensis, Hibiscus schizopetalus, Hibiscus tiliaceus, Ilex rotunda, Lagerstroemia speciose, Lagerstroemia subcostata, Ligustrum japonicum, Liquidambar formosana* and *Pistacia chinensis*
- c. Conditions for *Phytophthora capsici*<sup>1</sup> Note: Only applies to the following genera: *Abelmoschus, Hibiscus, Lavandula* and *Pistacia*

One of the following Additional Declarations must be endorsed on the phytosanitary certificate:

"The [insert species name] plants in this consignment have been sourced from [insert country name], which is free from *Phytophthora capsici*".

#### OR

"The [insert species name] plants in this consignment were produced in a "pest free area" for *Phytophthora capsici*".

#### OR

"The [insert species name] plants in this consignment were produced in a "pest free place of production" for *Phytophthora capsici*".

d. Conditions for *Phytophthora palmivora*<sup>1</sup>

Note: Only applies to the following genera: Abelmoschus, Coronilla, Dodonaea, Euphorbia, Grevillea, Hibiscus, Lavandula, Pistacia and Catharanthus

One of the following Additional Declarations must be endorsed on the phytosanitary certificate:

"The [insert species name] plants in this consignment have been sourced from [insert country name], which is free from *Phytophthora palmivora*".

#### OR

"The [insert species name] plants in this consignment were produced in a "pest free area" for *Phytophthora palmivora*".

OR

"The [insert species name] plants in this consignment were produced in a "pest free place of production" for *Phytophthora palmivora*".

e. Conditions for *Phytophthora tentaculata*<sup>1</sup>

Note: Only applies to the following genera: Lavandula and Origanum

One of the following Additional Declarations must be endorsed on the phytosanitary certificate:

"The [insert species name] plants in this consignment have been sourced from [insert country name], which is free from *Phytophthora tentaculata*".

#### OR

"The [insert species name] plants in this consignment were produced in a "pest free area" for *Phytophthora tentaculata*".

#### OR

"The [insert species name] plants in this consignment were produced in a "pest free place of production" for *Phytophthora tentaculata*".

#### **B. For Cuttings PEQ**: Level 2 **Minimum Period:** 3 months

- a. Conditions for *Xylella fastidiosa* (section 2.2.1.12)
   Guidance for importers: The minimum quarantine period will be <u>6 months</u> for nursery stock sourced from countries <u>not</u> recognised by MPI as free from *Xylella fastidiosa*
- b. Conditions for *Phytophthora capsici*<sup>1</sup> **Note:** Only applies to the following genera: *Abelmoschus, Hibiscus, Lavandula* and *Pistacia*

One of the following Additional Declarations must be endorsed on the phytosanitary certificate:

"The [insert species name] plants in this consignment have been sourced from [insert country name], which is free from *Phytophthora capsici*".

#### OR

"The [insert species name] plants in this consignment were produced in a "pest free area" for *Phytophthora capsici*".

#### OR

"The [insert species name] plants in this consignment were produced in a "pest free place of production" for *Phytophthora capsici*".

c. Conditions for *Phytophthora palmivora*<sup>1</sup>

**Note:** Only applies to the following genera: *Abelmoschus, Coronilla, Dodonaea, Euphorbia, Grevillea, Hibiscus, Lavandula, Pistacia* and *Catharanthus* 

One of the following Additional Declarations must be endorsed on the phytosanitary certificate:

"The [insert species name] plants in this consignment have been sourced from [insert country name], which is free from *Phytophthora palmivora*".

#### OR

"The [insert species name] plants in this consignment were produced in a "pest free area" for *Phytophthora palmivora*".

#### OR

"The [insert species name] plants in this consignment were produced in a "pest free place of production" for *Phytophthora palmivora*".

d. Conditions for *Phytophthora tentaculata*<sup>1</sup> **Note:** Only applies to the following genera: *Lavandula* and *Origanum* 

One of the following Additional Declarations must be endorsed on the phytosanitary certificate:

"The [insert species name] plants in this consignment have been sourced from [insert country name], which is free from *Phytophthora tentaculata*".

#### OR

"The [insert species name] plants in this consignment were produced in a "pest free area" for *Phytophthora tentaculata*".

#### OR

"The [insert species name] plants in this consignment were produced in a "pest free place of production" for *Phytophthora tentaculata*".

#### **C. For Tissue Cultures**

e. Conditions for *Xylella fastidiosa* on tissue culture (see section 2.2.2.5) **Guidance for importers**: There will be a minimum quarantine period of <u>6 months in a Level 2 PEQ</u> greenhouse, for tissue cultures from countries <u>not</u> recognised by MPI as free from *Xylella fastidiosa*.

<sup>1</sup>Implementation of measures:

For consignments with a phytosanitary certificate issued on or after 25 May 2018 the requirements for *Phytophthora capsici*, *P. palmivora* and *P. tentaculata* <u>must</u> be met.

For consignments with a phytosanitary certificate issued no later than <u>24 May 2018</u>, the requirements for *Phytophthora capsici*, *P. palmivora* and *P. tentaculata* are not mandatory.

**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; Xylella fastidiosa

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):

- a. Conditions for *Xylella fastidiosa* (section 2.2.1.12)
   Guidance for importers: The minimum quarantine period will be <u>6 months</u> for nursery stock sourced from countries <u>not</u> recognised by MPI as free from *Xylella fastidiosa*
- b. Conditions for Phymatotrichopsis omnivora

#### **OPTION 1**

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

#### **OPTION 2:**

i) Additional declaration: "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) <u>Phytosanitary requirements</u>

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) <u>Special tissue culture media requirements</u>

The tissue culture media must not contain charcoal.

#### (iii) <u>Phytosanitary requirements</u>

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 3B

**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 Pratylenchus scribneri

coffee root lesion nematode 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 alboatrum*; *Xylella fastidiosa* 

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

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

a. Conditions for *Xylella fastidiosa* (section 2.2.1.12)
 Guidance for importers: The minimum quarantine period will be <u>6 months</u> for nursery stock sourced from countries <u>not</u> recognised by MPI as free from *Xylella fastidiosa*

**B. For Tissue Cultures PEQ**: Level 3B **Minimum Period**: 3 months

a. Conditions for *Xylella fastidiosa* (section 2.2.2.5)
 Guidance for importers: The minimum quarantine period will be <u>6 months</u> for nursery stock sourced from countries <u>not</u> recognised by MPI as free from *Xylella fastidiosa*

**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; Phellinus noxius; 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)
   Guidance for importers: The minimum quarantine period will be <u>6 months</u> for nursery stock sourced from countries <u>not</u> recognised by MPI as free from *Xylella fastidiosa*
- b. Conditions for *Phellinus noxius* (section 2.2.1.13)
   Note: Only applies to the following species: *Hydrangea chinensis* and *Morus alba*
- c. 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 Cuttings PEQ**: Level 2 **Minimum Period**: 3 months

- a. Conditions for *Xylella fastidiosa* (section 2.2.1.12)
   Guidance for importers: The minimum quarantine period will be <u>6 months</u> for nursery stock sourced from countries <u>not</u> recognised by MPI as free from *Xylella fastidiosa*
- b. Additional declaration: "The plants have been dipped prior to export in dicofol at the rate of 0.7g a.i. per litre of water".

#### C. For Tissue Cultures

 a. Conditions for *Xylella fastidiosa* on tissue culture (see section 2.2.2.5)
 Guidance for importers: There will be a minimum quarantine period of <u>6 months in a Level 2 PEQ</u> greenhouse, for tissue cultures from countries <u>not</u> recognised by MPI as free from *Xylella fastidiosa*.

#### 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 3B Minimum Period: 3 months

a. Conditions for *Xylella fastidiosa* (section 2.2.1.12)
 Guidance for importers: The minimum quarantine period will be <u>6 months</u> for nursery stock sourced from countries <u>not</u> recognised by MPI as free from *Xylella fastidiosa*

**B. For Tissue Cultures PEQ**: Level 3B **Minimum Period**: 3 months

a. Conditions for *Xylella fastidiosa* (section 2.2.2.5)
 Guidance for importers: The minimum quarantine period will be <u>6 months</u> for nursery stock sourced from countries <u>not</u> recognised by MPI as free from *Xylella fastidiosa*

**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) <u>Phytosanitary requirements</u>

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) <u>Post-entry quarantine</u>

#### 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) <u>Phytosanitary requirements</u>

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) <u>Additional declarations to the phytosanitary certificate</u>

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) <u>Special tissue culture media requirements</u>

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 3B

**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	Japanese beette
Pseudococcidae	
Aleyrodes spiraeoides [whole plants only]	
Pseudococcidae	-
Phenacoccus avenae	
	-
Phenacoccus emansor	- Is als Decendelass as a ladore
Pseudococcus jackbeardsleyi [whole plants only]	Jack Beardsley mealybug
Rhizoecus palestineae	root mealybug
Lepidoptera	
Hepialidae	1
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	spirar noniacodo
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	
Armillaria mellea (anamorph Rhizomorpha	armillaria root rot

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

**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 3B 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 Cultures PEQ**: Level 3B **Minimum Period**: 6 months

> a. Conditions for *Xylella fastidiosa* (section 2.2.2.5) **Note:** Only applies to members of the *Juglans* genus

**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; Xylella fastidiosa

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

For Whole Plants: PEQ: Level 3B Minimum Period: 6 months

> a. Conditions for *Xylella fastidiosa* (section 2.2.1.12) **Note:** Only applies to the members of the *Juniperus* genus

**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:

#### 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.

<sup>1. &</sup>quot;*Chrysomyxa ledi* and *Microsphaeria* spp. are not known to occur in \_\_\_\_\_ (the country or state of 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 *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."

#### AND

One of the following Additional Declarations for *Phytophthora capsici*<sup>1</sup>:

"The [insert species name] plants in this consignment have been sourced from [insert country name], which is free from *Phytophthora capsici*".

#### OR

"The [insert species name] plants in this consignment were produced in a "pest free area" for *Phytophthora capsici*".

#### OR

"The [insert species name] plants in this consignment were produced in a "pest free place of production" for *Phytophthora capsici*".

#### (iv) <u>Post-entry quarantine</u>

#### **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) <u>Phytosanitary requirements</u>

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."

#### AND

- One of the following Additional Declarations for *Phytophthora capsici*<sup>1</sup>:

"The [insert species name] plants in this consignment have been sourced from [insert country name], which is free from *Phytophthora capsici*".

#### OR

"The [insert species name] plants in this consignment were produced in a "pest free area" for *Phytophthora capsici*".

#### OR

"The [insert species name] plants in this consignment were produced in a "pest free place of production" for *Phytophthora capsici*".

#### (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) <u>Post-entry quarantine</u>

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 3B

**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.

<sup>1</sup>Implementation of measures:

For consignments with a phytosanitary certificate issued no later than <u>24 May 2018</u>, the requirements for *Phytophthora capsici* are not mandatory.

For consignments with a phytosanitary certificate issued <u>on or after 25 May 2018</u> the requirements for *Phytophthora capsici* <u>must</u> be met.

# Pest List for Lilium

#### **REGULATED PESTS (actionable)**

Insect Insecta	
Collembola	
Entomobryidae	
Entomobrya multifasciata	Springtail
Lepidoptera	opringuin
Yponomeutidae	
Acrolepiopsis lilivora	-
Mite	
Arachnida	
Acarina	
Acaridae	
Schwiebea cuncta	-
Schwiebea taiwanensis	-
Tenuipalpidae	
Brevipalpus lilium	false spider mite
	1
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	armillaria root rot
subcorticalis)	
Auriculariales	
Auriculariaceae	
Helicobasidium mompa	violet root rot
Basidiomycota: Teliomycetes	
Uredinales	
Pucciniaceae	D
Puccinia sporoboli (anamorph Aecidium lilii)	Rust
Uromyces aecidiiformis	rust fungi
Uromyces holwayi	-
mitosporic fungi (Agonomycetes)	

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

**Note:** The entry conditions in this schedule only apply to species in the Plants Biosecurity Index listed under Import Specifications for Nursery Stock as "see 155.02.06 under *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 3B **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; Phellinus noxius; Xyloryctidae (Lepidoptera)

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

A. For Whole PlantsPEQ: Level 2Minimum Period: 6 months

- a. Conditions for *Phellinus noxius* (section 2.2.1.13)
- b. 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 3B 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 greenhouse facility accredited to the Facility Standard: Post Entry Quarantine for Plants (MPI.STD.PEQ).

**Quarantine Period and Inspection, Testing and Treatment Requirements**: The nursery stock will be grown for a minimum period of 6 months (active continuous growth) in postentry 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 3B greenhouse facility accredited to the Facility Standard: Post Entry Quarantine for Plants (MPI.STD.PEQ).

**Quarantine Period and Inspection, Testing and Treatment Requirements**: 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 <u>Biosecurity</u> <u>Organisms Register for Imported Commodities</u> to determine regulatory status.

#### **REGULATED PESTS (actionable)**

_	
Insect	
Insecta	
Coleoptera	
Attelabidae	
Rhynchites caeruleus	apple twig cutter
Bostrichidae	1
Amphicerus bicaudatus	apple twig borer
Apate monachus	black borer
Buprestidae	1 11
Agrilus mali	apple wood borer
Agrilus spp.	bark borers
Chrysobothris femorata	flatheaded apple tree borer
Chrysobothris mali	Pacific flatheaded borer
Chrysobothris spp.	flat-headed borers
Sphenoptera lafertei	flatheaded peach tree borer
Cerambycidae	Overthe heaven
Aeolesthes sarta	Quetta borer
Apriona germarii Apriona ianopica	mulberry longicorn beetle mulberry borer
Apriona japonica Bacchisa fortunei	pear borer
Batocera rufomaculata	red-spotted longhorn beetle
Phryneta spinator	red-spotted longhom beetle
Curculionidae	
Anthonomus piri	apple bud weevil
Eremnus atratus	black weevil
Eremnus cerealis	western province grain worm
Eremnus setulosus	grey weevil
Scolytidae	grey weevin
Hypothenemus obscurus	apple twig borer
Scolytus japonicus	Japanese bark beetle
Scolytus rugulosus	fruit bark borer
Diptera	
Cecidomyiidae	
Resseliella oculiperda	red bud borer
Thomasiniana oculiperda	red bud borer
Hormptera	
Aphididae	
Aphis spiraecola	spiraea aphid
Diaspididae	
Chrysomphalus aonidum	Florida red scale
Chrysomphalus dictyospermi	Spanish red scale
Diaspidiotus africanus	grey scale
Lepidoptera	
Cossidae	
Coryphodema tristis	quince trunk borer
Gelechiidae	
Recurvaria syrictis	bud moth
Gracillariidae	
Marmara elotella	apple barkminer
Marmara pomonella	apple fruitminer
Oecophoridae	
Cryptophasa melanostigma	fruit tree borer
Pyralidae	

Euzophera semifunera	lis
Ostrinia nubilalis	
Sesiidae	
Thamnosphecia pyri	
Synanthedon scitula	

#### Mite Arachnida

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

apple bark borer pecan tree borer

Sclerotinia spp.	neck rot
Rhytismatales	
Cryptomycetaceae	
Potebniamyces pyri (anamorph Phacidiopycnis piri)	Phacidiopycnis rot
Sordariales	
Chaetomiaceae	
Chaetomium spp.	fruit rot
Taphrinales	
Taphrinaceae	
Taphrina bullata	leaf blister
Xylariales	
Xylariaceae	.11 1 1
Biscogniauxia marginata	nailhead canker
Daldinia vernicosa Velocio modi	wood rot
Xylaria mali	black root rot
Ascomycota: Saccharomycetes	
Saccharomycetales	
Endomycetaceae Endomycopsis mali	not
Basidiomycota: Basidiomycetes	rot
Agaricales	
Coprinaceae	
Coprinus psychromorbidus	coprinus rot
Tricholomataceae	coprintes for
Armillaria mellea	armillaria root rot
Armillaria ostoyae	armillaria root rot
Armillaria tabescens	armillaria root rot
Ceratobasidiales	
Ceratobasidiaceae	
Ceratobasidium stevensii	thread blight
Ganodermatales	U
Ganodermataceae	
Ganoderma lucidum	wood rot
Hymenochaetales	
Hymenochaetaceae	
Phellinus pomaceus	white heart rot
Lachnocladiales	
Lachnocladiaceae	
Scytinostroma galactinum	white root rot
Polyporales	
Corticiaceae	
Corticium koleroga	thread blight
Cyphellaceae	
Maireina marginata	wood decay
Meripilaceae	
Phlebia radiata	wood decay
Trametes ochracea Poriales	wood decay
Coriolaceae	
Ceriporia spissa	wood rot
Coriolopsis gallica	white rot
Fomes fomentarius	wood decay
Fomes jonentarius Fomitopsis pinicola	brown cubical rot
Laetiporus sulphureus (anamorph Sporotrichum versisporum)	brown cubical rot
Lenzites betulina	wood decay
Oxyporus latemarginatus	wood decay
Oxyporus similis	wood decay
Stereales	· · · · · · · · · · · · · · · · · · ·
Atheliaceae	
Butlerelfia eustacei	storage rot
Sistotremataceae	c
Phymatotrichopsis omnivorum	Texas root rot

#### Basidiomycota: Urediniomycetes

Uredinales Pucciniaceae Gymnosporangium clavipes Gymnosporangium cornutum Gymnosporangium fuscum Gymnosporangium globosum Gymnosporangium hemisphaericum Gymnosporangium libocedri Gymnosporangium nelsonii Gymnosporangium nidus-avis *Gymnosporangium nootkatense Gymnosporangium shiraianum* Gymnosporangium spp. Gymnosporangium tremelloides Gymnosporangium yamadae Gymnosporangium juniperi-virginianae **Unknown Uredinales** Roestelia fenzeliana Roestelia levis **Basidiomycota: Ustomycetes Platygloeales** Platygloeaceae Helicobasidium mompa Mitosporic Fungi (Coelomycetes) **Sphaeropsidales** Sphaerioidaceae Cytospora schulzeri Dothiorella mali Phomopsis truncicola Phyllosticta solitaria Phyllosticta spp. Pyrenochaeta mali Sphaeropsis pyriputrescens Mitosporic Fungi (Hyphomycetes) **Hyphomycetales** Dematiaceae Alternaria mali Alternaria spp. Helminthosporium papulosum Cladosporium spp. Epicoccum spp. Stemphylium spp. Ulocladium spp. Moniliaceae Aspergillus spp. Botrytis mali Cephalosporium carpogenum *Cephalosporium spp.* Penicillium spp. Ramularia macrospora *Verticillium* spp. **Tuberculariales** Tuberculariaceae *Fusarium* spp. **Unknown Hyphomycetes** Oidium spp. **Oomycota: Oomycete** Peronosporales

**Peronosporaceae** Phytophthora capsici quince rust rust European pear rust American hawthorn rust rust Pacific Coast pear rust Rocky Mountain pear rust rust yellow cypress rust rust cedar apple rust common juniper gall rust Japanese apple rust cedar apple rust

rust rust

violet root rot

bark disease fruit rot blight apple blotch leaf spot fruit rot Sphaeropsis rot

#### alternaria blotch

black pox mouldy core mouldy core

cladosporium rot

coloured moulds fruit rot fruit rot

rot bellflower leaf spot verticillium wilt

powdery mildew

fruit rot of peppers

Phytophthora	palmivora
--------------	-----------

	Phytophthora palmivora	black rot
Bacteriu	m	
Schizom		
Pseu	Idomonadales	
	Pseudomonadaceae	
	Pseudomonas syringae pv. papulans	blister spot
Virus		
	Cherry rasp leaf virus	
+	Tomato bushy stunt virus	
¥74 4 3	Tomato ringspot virus	
Viroid		
	Apple dimple fruit viroid	
	Apple fruit crinkle viroid	
DI	Apple scar skin viroid	
Phytopla		Angle cossile loof shotes leave
	<i>Candidatus</i> Phytoplasma asteris' <i>Candidatus</i> Phytoplasma mali'	Apple sessile leaf phytoplasma Apple proliferation phytoplasma
Dicago	of unknown etiology	Apple promeration phytoplasma
Disease	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 <b>AND</b> approved insecticide treatments as described in section 2.2.1.6 of the Basic conditions [cuttings only]
Mites	Visual inspection <b>AND</b> approved miticide treatments as described in the section 2.2.1.6 of the Basic conditions [cuttings only] <b>or</b> binocular microscope inspection in PEQ [plants in tissue culture only]
Fungi	All cuttings must be dipped in 1% sodium hypochlorite for 2 minutes upon arrival in the post entry quarantine facility. Growing season inspection in PEQ for symptom expression
Oomycete	All cuttings must be dipped in 1% sodium hypochlorite for 2 minutes upon arrival in the post entry quarantine facility. Growing season inspection in PEQ for symptom expression
Bacteria	
Pseudomonas syringae pv. papulans	All cuttings must be dipped in 1% sodium hypochlorite for 2 minutes upon arrival in the post entry quarantine facility. Growing season inspection for symptom expression <b>AND</b> PCR
Viruses	
Cherry rasp leaf virus	Woody indexing ('Golden delicious') <b>or</b> herbaceous indexing ( <i>Chenopodium quinoa</i> and <i>Chenopodium amaranticolor</i> ) <b>AND</b> PCR
Tomato bushy stunt virus	Herbaceous indexing ( <i>Chenopodium quinoa</i> and <i>Chenopodium amaranticolor</i> )
Tomato ringspot virus	Herbaceous indexing ( <i>Chenopodium quinoa</i> and <i>Chenopodium amaranticolor</i> ) <b>AND</b> ELISA <b>or</b> PCR
Viroids	
Apple dimple fruit viroid	Woody indexing ('Red delicious') AND PCR
Apple fruit crinkle viroid	Woody indexing ('Golden delicious') AND PCR
Apple scar skin viroid	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'	Woody indexing ('Golden delicious') AND nested PCR or real
(Apple proliferation phytoplasma)	time PCR using universal phytoplasma primers
	time i ert using universal phytophasma printers
Diseases of unknown etiology Apple blister bark agent	Growing season inspection
Apple brown ringspot agent	Growing season inspection Growing season inspection
Apple brown migspot agent Apple bumpy fruit agent	Growing season inspection Growing season inspection
Apple bunchy top agent	Growing season inspection 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 <u>unit for testing</u> is definied 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 3B 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 3B 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.mpi.govt.nz/protection-and-response/laboratories/plant-health-and-environment-laboratory/publications/

- **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, Phellinus noxius, Phytophthora palmivora, Xanthomonas campestris pv. mangiferae-indicae

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

## A. For Whole PlantsPEQ: Level 2Minimum Period: 6 months

a. Conditions for Ceratocystis fimbriata (section 2.2.1.8)

b. Conditions for *Phellinus noxius* (section 2.2.1.13) **Note**: Only applies to the following species: *Mangifera indica* 

c. Conditions for Phytophthora palmivora<sup>1</sup>

One of the following Additional Declarations must be endorsed on the phytosanitary certificate:

"The [insert species name] plants in this consignment have been sourced from [insert country name], which is free from *Phytophthora palmivora*".

OR

"The [insert species name] plants in this consignment were produced in a "pest free area" for *Phytophthora palmivora*".

#### OR

"The [insert species name] plants in this consignment were produced in a "pest free place of production" for *Phytophthora palmivora*".

#### d. 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".

#### **B. For Tissue Cultures PEQ**: Level 2 **Minimum Period**: 6 months

- a. Conditions for Ceratocystis fimbriata (section 2.2.1.8)
- b. Additional declaration:

"Xanthomonas campestris pv. mangiferae-indicae is not known to occur in \_\_\_\_\_

(the country or state where the plants were grown)

"The plants were inspected during the growing season and no *Xanthomonas campestris* pv. *mangiferae-indicae* was detected".

<sup>1</sup><u>Implementation of measures</u>:

For consignments with a phytosanitary certificate issued on or after 25 May 2018 the requirements for *Phytophthora palmivora* must be met.

For consignments with a phytosanitary certificate issued no later than <u>24 May 2018</u>, the requirements for *Phytophthora*. *palmivora* are not mandatory.

**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, Phellinus noxius, Phytophthora palmivora, 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 *Ceratocystis fimbriata* (section 2.2.1.8) Note: Only applies to members of the *Metrosideros* and *Pimenta* genera
- b. Conditions for *Xylella fastidiosa* (section 2.2.1.12) Note: Only applies to members of the *Metrosideros* and *Myrtus* genera
- c. Conditions for *Phellinus noxius* (section 2.2.1.13) **Note:** Only applies to the following species: *Melaleuca leucadendra*
- d. Conditions for *Phytophthora palmivora*<sup>1</sup> **Note:** Only applies to members of the *Psidium* genus

One of the following Additional Declarations must be endorsed on the phytosanitary certificate:

"The [insert species name] plants in this consignment have been sourced from [insert country name], which is free from *Phytophthora palmivora*". **OR** 

"The [insert species name] plants in this consignment were produced in a "pest free area" for *Phytophthora palmivora*".

#### OR

"The [insert species name] plants in this consignment were produced in a "pest free place of production" for *Phytophthora palmivora*".

e. Additional declaration

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

#### OPTION 2: PEQ: Level 3B 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. Conditions for *Xylella fastidiosa* (section 2.2.1.12) Note: Only applies to members of the *Metrosideros* and *Myrtus* genus

#### **B.** For Tissue Cultures

- a. Conditions for *Xylella fastidiosa* on tissue culture (see section 2.2.2.5) **Note:** Only applies to members of the *Metrosideros* and *Myrtus* genus
- b. Conditions for Puccinia psidii s.l. complex:

#### **OPTION 1:**

- i) 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

i) The cultures containers are not to be opened during the quarantine period. **Guidance for importers**: Tissue cultures imported this option must complete the PEQ requirements for *Puccinia psidii* before being deflasked into the PEQ greenhouse.

<sup>1</sup><u>Implementation of measures</u>:

For consignments with a phytosanitary certificate issued <u>on or after 25 May 2018</u> the requirements for *Phytophthora palmivora* <u>must</u> be met.

For consignments with a phytosanitary certificate issued no later than <u>24 May 2018</u>, the requirements for *Phytophthora*. *palmivora* are not mandatory.

- **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) <u>Documentation</u>

**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 hypochorite 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) <u>Additional declarations to the phytosanitary certificate</u>

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.

For organisms intercepted that are not listed within this pest list refer to the <u>Biosecurity</u> <u>Organisms Register for Imported Commodities</u> to determine regulatory status.

#### (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. Subculturing 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

Acidovorax avenae ssp. avenae Leifsonia xyli subsp. Xyli

#### Fungi

Acremonium sp. Colletotrichum sp. Diaporthe sp. Diplodia sp. Drechslera gigantean Fusarium miscanthi Fusarium pallidoroseum Glomerella sp. Glomerella tucumanensis Helminthosporium sp. Leptosphaeria sp. Magnaporthe salvinii Mycosphaerella recutita Mycosphaerella striatiformans Nigrospora sp. Passalora koepkei Peronosclerospora sp. Phlyctema sp. Phoma sp. Phomopsis sp. Phyllachora sp. Puccinia melanocephala Ramularia sp. Rhizoctonia sp. Stagonospora sp. Thanatephorus cucumeris Ustilago scitaminea Verticillium sp.

#### Mites

Schizotetranychus celarius

#### Viruses

Miscanthus streak virus Sugarcane mosaic virus Bacterial leaf blight Sugarcane ratoon stunting disease

Black bundle disease Leaf spot Canker Blight Eyespot Rot Rot Leaf spot Leaf spot Eyespot Canker Stem rot Leaf blight Leaf spot Stalk rot Yellow spot Downy mildew Canker Blight Blight Leaf spot Sugarcane rust Anthracnose Root rot Scorch Blight Sugarcane smut Verticillium wilt

Bamboo mite

#### 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	
Ustilago scitaminea	PCR/BIO-PCR, <b>OR</b> two consecutive hot water treatments at a minimum temperature of 50°C for 3 hours per treatment <b>OR</b> two consecutive hot water treatments at a minimum temperature of 52°C for 1 hour per treatment.
Bacteria	
Leifsonia xyli subsp. xyli	PCR/BIO-PCR, <b>OR</b> fluorescent-antibody staining of sap extracts, concentrated on membrane filters by filtration with observation by epifluorescence microscopy.
Viruses	
Miscanthus streak virus	PCR
Sugarcane mosaic virus	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 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 3B 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; Phellinus noxius; 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)
   Guidance for importers: The minimum quarantine period will be <u>6 months</u> for nursery stock sourced from countries <u>not</u> recognised by MPI as free from *Xylella fastidiosa*
- b. Conditions for Phellinus noxius (section 2.2.1.13)
- c. Additional declaration: "*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

- a. Conditions for *Xylella fastidiosa* (section 2.2.2.5)
   Guidance for importers: The minimum quarantine period will be <u>6 months</u> for nursery stock sourced from countries <u>not</u> recognised by MPI as free from *Xylella fastidiosa*
- b. 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 lilii; Pratylenchus scribneri; Ramularia vallisumbrosae; Sclerotinia polyblastis; Steneotarsonemus laticeps; virus diseases.

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

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

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

#### **OPTION 1:**

No import permit is required. PEQ: None Additional Declaration(s):

#### 1) For bulbs produced under a 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 <u>other than</u> 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.

#### Type of Olea nursery stock approved for entry into New Zealand

Cuttings (dormant); Plants in tissue culture

#### Pests of Olea

Refer to the pest list.

#### **Entry conditions for:**

#### 3.1 Olea cuttings and tissue culture from any country

#### (i) <u>Documentation</u>

**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) <u>Phytosanitary requirements</u>

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]

#### (iv) Special tissue culture media requirements

The tissue culture media must not contain charcoal.

#### (v) <u>Post-entry quarantine</u>

**PEQ**: All *Olea* nursery stock must be imported under permit into post-entry quarantine in a Level 3B greenhouse facility accredited to the Facility Standard: Post Entry Quarantine for Plants (MPI.STD.PEQ).

**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.

Olea

## Pest List for Olea

#### **REGULATED PESTS (actionable)**

Insect Insecta	
Insecta	
Coccidae	
Saissetia privigna	black scale
Coleoptera	
Attelabidae	
Rhynchites cribripennis	twig cutter
Buprestidae	<i>8</i>
Anthaxia ariadna	wood-boring beetle
Scolytidae	6
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
Metaceronema 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
Selenaspidus articulatus	West Indian red scale
Lepidoptera	
Pyralidae	1 <u>1</u> - <u>1</u>
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 olive leaf and flower mite
Oxycenus noloticus Taganatus hasani	
Tegonotus hassani Tenvinalpidae	olive rust mite
Tenuipalpidae Bravinglpus chalkidicus	folso onidar mita
Brevipalpus chalkidicus Brevipalpus macedonicus	false spider mite false spider mite
Brevipalpus oleae	false spider mite
	Taise spreer fine

Brevipalpus olearius	false spider mite
Brevipalpus olivicola	false spider mite
Raoiella macfarlanei	false spider mite
Tenuipalpus caudatus	false spider mite
Tetranychidae	
Eotetranychus lewisi	big beaked plum mite
Fundua	
Fungus Ascomycota	
Dothideales	
Capnodiaceae	
Capnodium elaeophilum	sooty mould
Elsinoaceae	soory mound
Elsinoe oleae	olive scab
Unknown Dothideales	
Massariella oleae	bark canker
Massariella zambettakiana	canker
Zukalia purpurea	black mildew
Xylariales	
Xylariaceae	
Xylaria sicula	root rot
Basidiomycota	
Agaricales	
Agaricaceae	
Armillaria mellea (anamorph Rhizomorpha subcorticalis)	armillaria root rot
Boletales	
Paxillaceae	_
Omphalotus olearius	wood rot
Ganodermatales	
Ganodermataceae	1
Ganoderma lucidum (anamorph Polyporus lucidus)	wood rot
Hymenochaetales	
Hymenochaetaceae	wood rot
Phellinus igniarius	wood fot
Oomycota Peronosporales	
Peronosporaceae	
Phytophthora palmivora	Coconut budrot
Phytophthora ramorum	Sudden oak death disease
Poriales	
Coriolaceae	
Fomes fomentarius	
Fomes fulvus Fomes salicinus	
Fomes saticitus Fomes torulosus	wood rot
	wood rot
Fomes yucatonensis Polyporaceae	wood for
Polyporus biennis	wood rot
Polyporus oleae	wood rot
Stereales	wood for
Sistotremataceae	
Trechispora brinkmanii (anamorph Phymatotrichopsis	Texas root rot
omnivorum)	
Mitosporic Fungi (Coelomycetes)	
Sphaeropsidales	
Sphaerioidaceae	
Camarosporium dalmatica	brown spot
Cytospora oleina	canker
Macrophoma dalmatica	fruit rot
Phoma incompta	stem blight
Phyllosticta oleae	phyllosticta leaf spot
Septoria obesa	leaf spot

Septoria oleae	leaf spot
Septoria oleagina	leaf spot
Septoria serpentaria	leaf spot
Sphaeropsis dalmatica	stem gall
Sphaeropsis oleae	stem gall
Unknown Coelomycetes	
Unknown Coelomycetes	
Cylindrosporium olivae	leaf spot
Bacterium	
Pseudomonadaceae	
Pseudomonas syringae pv. garcae	twig blight
Xylella fastidiosa	
Virus	
Cherry leaf roll virus [strains not in New Zealand]	-
Olive latent 1 virus	-
Olive latent 2 virus	-
Olive latent ringspot virus	-
Olive leaf yellowing-associated virus	-
Olive vein yellow virus	-
Strawberry latent ringspot virus [strains not in New Zealand]	-
Phytoplasma	
Olive witches' broom phytoplasma	-
Disease of unknown aetiology	
Infectious yellows	-
Leaf 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	
Fungi	Growing season inspection in PEQ for disease symptom expression.
Oomycete	Growing season inspection in PEQ for disease symptom expression.
Bacterium	
Pseudomonas syringae pv. garcae	Growing season inspection in PEQ for disease symptom expression.
Xylella fastidiosa	Growing season inspection in PEQ for disease symptom expression AND PCR
Virus	
Cherry leaf roll virus [strains not	ELISA or PCR AND herbaceous indicators Ca, Cq and Nb.
in New Zealand]	
Olive latent 1 virus	Herbaceous indicators Ca, Cq and Nb.
Olive latent 2 virus	Herbaceous indicators Ca, Cq and Nb.
Olive latent ringspot virus	Herbaceous indicators Ca and Cq.
Olive leaf yellowing-associated	Woody indicators (Olea europaea cv. Biancolilla)
virus	
Olive vein yellow virus	Herbaceous indicators Cq
Strawberry latent ringspot virus	ELISA or PCR AND herbaceous indicators Ca and Cq.
[strains not in New Zealand]	
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. 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.
- 3. Indicator plants must be grown under appropriate temperatures and must be shaded for 24 hrs prior to inoculation. Maintain post-inoculated indicator species under appropriate glasshouse conditions for at least 4 weeks. Inspect inoculated indicator plants at least twice per week for symptoms of virus infection.
- 4. Enzyme linked immunosorbent assay (ELISA); Polymerase chain reaction (PCR).
- 5. 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.
- 6. PCR and ELISA must be validated using positive controls/reference material prior to use in quarantine testing.
- 7. Positive and negative controls must be used in ELISA tests.
- 8. 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.
- 9. 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.
- 10. With prior notification, MPI will accept other internationally recognised testing methods.

**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 flaccidium; Phymatotrichopsis omnivora

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

For Dormant Tubers: PEQ: Level 1 or Level 2 (see below) Minimum Period: 3 months

#### **Additional Declaration(s):**

**1.** "The dormant tubers have been sourced from a "Pest free area" or "Pest free place of production", free from *Cronartium flaccidium*".

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

#### **OR**

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

#### AND

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

#### AND

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

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

#### **GENERAL CONDITIONS:**

**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 flaccidium 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 sonniferum*", 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: *Phytophthora palmivora*, 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

#### a. Additional declaration:

"Witches broom phytoplasma is not known to occur in \_\_\_\_\_ (the country or state where the plants were grown) \_\_\_\_\_".

b. Conditions for *Phytophthora palmivora*<sup>1</sup>

One of the following Additional Declarations must be endorsed on the phytosanitary certificate:

"The [insert species name] plants in this consignment have been sourced from [insert country name], which is free from *Phytophthora palmivora*".

#### OR

"The [insert species name] plants in this consignment were produced in a "pest free area" for *Phytophthora palmivora*".

#### OR

"The [insert species name] plants in this consignment were produced in a "pest free place of production" for *Phytophthora palmivora*".

#### **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".

<sup>1</sup><u>Implementation of measures</u>:

For consignments with a phytosanitary certificate issued on or after 25 May 2018 the requirements for *Phytophthora palmivora* <u>must</u> be met.

For consignments with a phytosanitary certificate issued no later than <u>24 May 2018</u>, the requirements for *Phytophthora*. *palmivora* are not mandatory.

**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 3B greenhouse facility accredited to the Facility Standard: Post Entry Quarantine for Plants (MPI.STD.PEQ).

**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
Monolepta apicalis
Monolepta australis
Curculionidae
Copturus aguacatae
Diaprepes abbreviatus
Heilipus squamosus
Naupactus xanthographus
Hemiptera
Coreidae
Amblypelta lutescens
Amblypelta nitida
Pseudotheraptus wayi
Lygaeidae
Nysius ericae
Tingidae
Pseudacysta perseae
Homoptera
Aleyrodidae
Aleurocanthus woglumi
Parabemisia myricae
Paraleyrodes minei
Paraleyrodes perseae
Tetraleurodes perseae
Trialeurodes floridensis
Coccidae
Ceroplastes floridensis
Ceroplastes rubens
Ceroplastes rusci
Chloropulvinaria psidii
Protopulvinaria pyriformis
Pulvinaria mammeae
Diaspididae
Aonidiella orientalis
Aspidiotus destructor
Chrysomphalus aonidum
Chrysomphalus dictyospermi
Fiorinia fioriniae Pinnaspis strachani
Selenaspidus articulatus
Margarodidae
Icerya seychellarum
Pseudococcidae
Dysmicoccus brevipes
Ferrisia virgata
Nipaecoccus nipae
Planococcus citri
Psyllidae
Trioza aguacate
Trioza anceps
Trioza godoyae
Trioza perseae
Hymenoptera
Formicidae

monolepta beetle red-shouldered leaf beetle branch boring weevil citrus weevil fruit tree weevil banana spotting bug fruit-spotting bug coreid bug false chinch bug avocado lace bug citrus blackfly Japanese bayberry whitefly whitefly plumeria whitefly whitefly avocado whitefly Florida wax scale red wax scale fig wax scale guava scale pyriform scale oriental yellow scale coconut scale Florida red scale dictyospermum scale fiorinia scale hibiscus snow scale West Indian red scale Seychelles scale pineapple mealybug striped mealybug coconut mealybug citrus mealybug psyllid psyllid psyllid psyllid

Atta cephalotes	leaf-cutting ant
Lepidoptera	C
Geometridae	
Ascotis selenaria	mugwort looper
Sabulodes aegrotata	omnivorous looper
Hesperiidae	Ĩ
Pyrrhopyge chalybea	swift moth
Noctuidae	
Peridroma margaritosa	-
Prodenia eridania	-
Pseudoplusia includens	soybean looper
Oecophoridae	5 1
Stenoma catenifer	stenomid moth
Pyralidae	
Cryptoblabes gnidiella	Christmas berry webworm
Stericta albifasciata	-
Tortricidae	
Amorbia cuneana	leafroller
Amorbia emigratella	Mexican leafroller
Amorbia essigana	leafroller
Argyrotaenia citrana	orange tortrix
Cacoecimorpha pronubana	carnation leafroller
Cryptophlebia leucotreta	false codling moth
Homona spargotis	avocado leafroller
Isotenes miserana	orange fruitborer
Platynota stultana	omnivorous leafroller
•	ommvorous leanoner
Thysanoptera Thyinidaa	
Thripidae Batichaina mariagua	block wine theirs
Retithrips syriacus	black vine thrips
Selenothrips rubrocinctus	red-banded thrips
Mite	
Arachnida	
Acarina	
Tetranychidae	too and opidor poito
Oligonychus coffeae	tea red spider mite
Oligonychus perseae	spider mite
Oligonychus punicae	avocado brown mite
Oligonychus yothersi	avocado red mite
-	
Fungus	
Ascomycota	
Phyllachorales	
Phyllachoraceae	
Glomerella cingulata var. minor (anamorph	anthracnose
Colletotrichum gloeosporioides var. minus)	
Xylariales	
Xylariaceae	
Rosellinia bunodes	-
Rosellinia pepo	-
Basidiomycota	
Hymenochaetales	
Hymenochaetaceae	
Phellinus noxius	brown root rot
Oomycota	
Pythiales	
Pythiaceae	
Phytophthora palmivora	black rot
Dothideomycetes	
Myriangiales	
Elsinoeaceae	
Sphaceloma perseae	Avocado scab

mitosporic fungi (Coelomycetes)	
Sphaeropsidales	
Sphaerioidaceae	
Phomopsis perseae	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	
Xylella fastidiosa	Growing season inspection in PEQ for disease symptom expression AND PCR
Virus	
Avocado cryptic virus 3	Pest free area or Pest free place of production AND Growing season inspection in PEQ for disease symptom expression.
Viroid	
Avocado sunblotch viroid [strains not in New Zealand]	Hybridisation or PAGE or PCR (two sets).
Potato spindle tuber viroid	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 *Petunia*", 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 palmivora, Potato spindle tuber viroid

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

A. For Whole Plants and Cuttings
Import Permit: An import permit is required.
GM Testing Certificate: A copy of the GM testing certificate must be submitted with the import permit application.
PEQ: Level 2
Minimum Period: 3 months
Additional declaration:

a. Conditions for Potato spindle tuber viroid

"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. Conditions for *Phytophthora palmivora*<sup>1</sup>

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

One of the following Additional Declarations must be endorsed on the phytosanitary certificate:

"The [insert species name] plants in this consignment have been sourced from [insert country name], which is free from *Phytophthora palmivora*".

#### OR

"The [insert species name] plants in this consignment were produced in a "pest free area" for *Phytophthora palmivora*".

#### OR

"The [insert species name] plants in this consignment were produced in a "pest free place of production" for *Phytophthora palmivora*".

For consignments with a phytosanitary certificate issued no later than <u>24 May 2018</u>, the requirements for *Phytophthora*. *palmivora* are not mandatory.

<sup>&</sup>lt;sup>1</sup>Implementation of measures:

For consignments with a phytosanitary certificate issued <u>on or after 25 May 2018</u> the requirements for *Phytophthora palmivora* <u>must</u> be met.

#### **B.** For Tissue Cultures

**Import Permit:** An import permit is required.

**GM Testing Certificate:** A copy of the GM testing certificate must be submitted with the import permit application.

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*".

#### **Requirements for Genetically Modified (GM) Testing Certificates:**

All varieties of *Petunia* nursery stock imported into New Zealand require a GM testing certificate, which confirms that the variety is not a new organism, as defined by the Hazardous Substances and New Organisms Act 1996 (HSNO Act 1996). A copy of the GM testing certificate must be submitted with the import permit application.

- Testing must occur at an MPI-approved or recognised laboratory, in accordance with the standard PIT-GMO-ALGMOT: *Approval of Laboratories for Genetically Modified Organism Testing*, and the *Protocol for Testing for the Presence of Genetically Modified Plant Material*.
- The GM testing certificate must include the species name and a unique identifier (e.g. variety name or lot/line number), which must be reproduced on other import documentation to support traceability.
- Sampling for the purposes of testing must be carried out in accordance with the Protocol for Testing for the Presence of Genetically Modified Plant Material.

#### Guidance:

 The Protocol, and a list of MPI-approved and recognised facilities, are on the website Genetically Modified Plant Material <u>http://mpi.govt.nz/importing/plants/seeds-for-sowing/genetically-modified-seeds/</u> **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, Phytophthora palmivora

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 *Phytophthora palmivora*<sup>1</sup> One of the following Additional Declarations must be endorsed on the phytosanitary certificate:

"The [insert species name] plants in this consignment have been sourced from [insert country name], which is free from *Phytophthora palmivora*".

#### OR

"The [insert species name] plants in this consignment were produced in a "pest free area" for *Phytophthora palmivora*".

OR

"The [insert species name] plants in this consignment were produced in a "pest free place of production" for *Phytophthora palmivora*".

#### 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:** 

a. Additional declarations

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

- have been sourced from mother stock that has been tested for, and found free from Capsicum chlorosis virus and Basella rugose mosaic virus,
   AND
- comply with the requirements of the Offshore Assurance Programme (OAP) implemented by New Zealand MPI and Taiwan BAPHIQ,
   AND
- have been inspected and found free from regulated viruses, insects, mites, fungi and bacteria,

AND

- have been treated with appropriate broad-spectrum insecticide and miticide drench no more than 14 days prior to export to New Zealand." b. Conditions for *Phytophthora palmivora*<sup>1</sup>

One of the following Additional Declarations must be endorsed on the phytosanitary certificate:

"The [insert species name] plants in this consignment have been sourced from [insert country name], which is free from *Phytophthora palmivora*".

OR

"The [insert species name] plants in this consignment were produced in a "pest free area" for *Phytophthora palmivora*".

#### OR

"The [insert species name] plants in this consignment were produced in a "pest free place of production" for *Phytophthora palmivora*".

#### **C. For Tissue Cultures**

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

<sup>1</sup><u>Implementation of measures</u>:

For consignments with a phytosanitary certificate issued <u>on or after 25 May 2018</u> the requirements for *Phytophthora palmivora* <u>must</u> be met.

For consignments with a phytosanitary certificate issued no later than <u>24 May 2018</u>, the requirements for *Phytophthora*. *palmivora* are not mandatory.

**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 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 *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: Fusarium wilt, Cadang-cadang, Lethal yellowing, *Phytophthora palmivora, Xylella fastidiosa* 

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

A. For Whole Plants and CuttingsPEQ: Level 2Minimum Period: 3 monthsHeight Limit: Plants must not exceed 1.5m in height

a. Conditions for Phytophthora palmivora<sup>1</sup>

One of the following Additional Declarations must be endorsed on the phytosanitary certificate:

"The [insert species name] plants in this consignment have been sourced from [insert country name], which is free from *Phytophthora palmivora*". **OR** 

"The [insert species name] plants in this consignment were produced in a "pest free area" for *Phytophthora palmivora*".

#### OR

"The [insert species name] plants in this consignment were produced in a "pest free place of production" for *Phytophthora palmivora*".

- b. Conditions for *Xylella fastidiosa* (section 2.2.1.12)
   Guidance for importers: The minimum quarantine period will be <u>6 months</u> for nursery stock sourced from countries <u>not</u> recognised by MPI as free from *Xylella fastidiosa*
- c. 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) \_\_."

#### **B. For Tissue Culture PEQ**: Level 2 **Minimum Period**: 3 months

- a. Conditions for *Xylella fastidiosa* on tissue culture (section 2.2.2.5)
   Guidance for importers: The minimum quarantine period will be <u>6 months</u> for tissue cultures sourced from countries <u>not</u> recognised by MPI as free from *Xylella fastidiosa*.
- b. Additional Declaration: "Cadang cadang and lethal yellowing are not known to occur in \_\_\_\_\_(the country or state where the plants were grown) \_\_\_\_\_".

For consignments with a phytosanitary certificate issued no later than <u>24 May 2018</u>, the requirements for *Phytophthora*. *palmivora* are not mandatory.

<sup>&</sup>lt;sup>1</sup>Implementation of measures:

For consignments with a phytosanitary certificate issued <u>on or after 25 May 2018</u> the requirements for *Phytophthora palmivora* <u>must</u> be met.

**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; 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 Phytophthora ramorum (section 2.2.1.11)
- b. Conditions for *Xylella fastidiosa* (section 2.2.1.12)
   Guidance for importers: The minimum quarantine period will be <u>6 months</u> for nursery stock sourced from countries <u>not</u> recognised by MPI as free from *Xylella fastidiosa*
- c. Conditions for Gymnosporangium spp.:
  - i) 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".

#### AND

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

#### **B.** For Tissue Cultures

 a. Conditions for *Xylella fastidiosa* on tissue culture (see section 2.2.2.5)
 Guidance for importers: There will be a minimum quarantine period of <u>6 months in a Level 2 PEQ</u> greenhouse, for tissue cultures from countries <u>not</u> recognised by MPI as free from *Xylella fastidiosa*. **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; Phellinus noxius

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

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

> a. Conditions for *Phellinus noxius* (section 2.2.1.13) **Note**: Only applies to the following species: *Zelkova serrata*

**B. For Tissue Cultures PEQ**: Level 3B **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:

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

- a. Conditions for *Xylella fastidiosa* (section 2.2.1.12)
   Guidance for importers: The minimum quarantine period will be <u>6 months</u> for nursery stock sourced from countries <u>not</u> recognised by MPI as free from *Xylella fastidiosa*
- b. Conditions for Ceratocystis platani:

#### **OPTION 1**

i) Additional declaration: "The plants have been sourced from a country free from *Ceratocystis platani*"

#### **OPTION 2**, For countries where *Ceretocystis platani* is known to be present

i) Additional declaration: "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

ii) 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 Tissue Cultures

 a. Conditions for *Xylella fastidiosa* on tissue culture (see section 2.2.2.5)
 Guidance for importers: There will be a minimum quarantine period of <u>6 months in a Level 2 PEQ</u> greenhouse, for tissue cultures from countries <u>not</u> recognised by MPI as free from *Xylella fastidiosa*. **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 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 *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 MPIaccredited facility

AND

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

#### (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) <u>*Post-entry quarantine*</u>

**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 3B MPI-accredited facility. Refer to *Poncirus* Inspection, Testing and Treatment Requirements following the *Poncirus* pest list.

#### (v) *Post-entry quarantine*

#### **PEQ**: Level 3B

**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) <u>Pest proof container and growing media for tissue culture</u>

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) <u>Phytosanitary requirements</u>

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 MPIaccredited 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) <u>Pest proof container and growing media for tissue culture</u>

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) <u>Phytosanitary requirements</u>

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 3B MPI-accredited facility. Refer to *Poncirus* Inspection, Testing and Treatment Requirements following the *Poncirus* pest list.

#### (vi) Post-entry quarantine

#### **PEQ**: Level 3B

**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	
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.	-
Protostrophus avidus Sciobius marshalli	weevil
Sciobius marshalli	citrus snout beetle

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

Bemisia citricola Dialeurodes citri Dialeurodes citrifolii Dialeurolonga sp. Parabemisia myricae Siphoninus phillyreae Aphididae Aphis fabae Aulacorthum magnoliae Cicadellidae Asymmetrasca decedens *Circulifer opacipennis* Circulifer tenellus Cuerna costalis Edwardsiana flavescens Empoasca bodenheimeri Empoasca citrusa Empoasca decipiens Empoasca distinguenda Empoasca fabae Empoasca onukii Homalodisca coagulata Homalodisca lacerta Jacobiasca lybica Neoaliturus haematoceps Penthimiola bella Scaphytopius nitridus Cicadidae Cryptotympana facialis Meimuna opalifera Coccidae Ceroplastes floridensis Ceroplastes japonicus Ceroplastes rubens Ceroplastes rusci Coccus celatus Coccus pseudomagnoliarum Coccus viridis Cribrolecanium andersoni Gascardia brevicauda Protopulvinaria pyriformis Pulvinaria aethiopica Pulvinaria aurantii Pulvinaria cellulosa Saissetia citricola Saissetia somereni Dactylopiidae Dactylopius filamentosis Dactylopius vastator Diaspididae Aonidiella citrina Chrysomphalus aonidum Chrysomphalus bifasciculatus Chrysomphalus dictyospermi Chrysomphalus pinnulifera Ischnaspis longirostris Lepidosaphes beckii Lepidosaphes gloverii Parlatoria ziziphi Pseudaonidia duplex Selenaspidus articulatus Unaspis citri

citrus whitefly cloudywinged whitefly Japanese bayberry whitefly phillyrea whitefly bean aphid Japanese elder aphid leafhopper beet leafhopper leafhopper leafhopper green citrus leafhopper green leafhopper potato leafhopper tea green leafhopper glassy-winged sharpshooter cotton jassid leafhopper citrus leafhopper leafhopper black cicada elongate cicada Florida wax scale pink wax scale red wax scale fig wax scale citricola scale green scale white powdery scale white waxy scale pyriform scale soft green scale citrus cottony scale pulvinaria scale citrus string cottony scale vellow scale Florida red scale brown scale dictyospermum scale false purple scale black thread scale purple scale Glover scale black parlatoria scale camphor scale

West Indian red scale

citrus snow scale

Unaspis yanonensis Flatidae Colgar peracuta Geisha distinctissima Lawana conspersa Metcalfa pruinosa Fulgoridae Anzora unicolor Margarodidae Drosicha howardi Icerya seychellarum Ortheziidae Nipponorthezia ardisiae Pseudococcidae Allococcus spp. Ferrisia consobrina Ferrisia virgata Nipaecoccus vastator Nipaecoccus viridis Paracoccus burnerae Planococcus kraunhiae Planococcus lilacinus Planococcus minor Pseudococcus citriculus Pseudococcus commonus Pseudococcus filamentosus Rastrococcus spinosus Rhizoecus kondonis Psyllidae Diaphorina citri Trioza erytreae [vector] Ricaniidae Scolvpopa sp. Tropiduchidae Tambinia sp. **Hymenoptera** Aphelinidae Aphytis africanus [Animals Biosecurity] Aphytis holoxanthus [Animals Biosecurity] Aphytis lepidosaphes [Animals Biosecurity] Aphytis lingnanensis [Animals Biosecurity] Aphytis melinus [Animals Biosecurity] Azotus platensis [Animals Biosecurity] Cales noacki [Animals Biosecurity] Cales orchamoplati [Animals Biosecurity] Centrodora penthimiae [Animals Biosecurity] Coccophagus caridei [Animals Biosecurity] Coccophagus pulvinariae [Animals Biosecurity] Encarsia ectophaga [Animals Biosecurity] Encarsia lahorensis [Animals Biosecurity] Encarsia lounsburyi [Animals Biosecurity] *Encarsia opulenta* [Animals Biosecurity] Encarsia smithi [Animals Biosecurity] Eretmocerus serius [Animals Biosecurity] *Marietta connecta* [Animals Biosecurity] Marietta leopardina [Animals Biosecurity] **Braconidae** Apanteles aristotalilae [Animals Biosecurity] Biosteres longicaudatus [Animals Biosecurity] Pholetesor ornigis [Animals Biosecurity] Encyrtidae Anicetus beneficus [Animals Biosecurity]

Japanese citrus scale green broad-winged planthopper green flatid planthopper planthopper persimmon mealybug Seychelles scale ensign scale mealybug striped mealybug nipa mealybug hibiscus mealybug spherical mealybug Japanese wisteria mealybug citrus mealybug passionvine mealybug smaller citrus mealybug mealybug mealybug Kondo mealybug citrus psyllid citrus psyllid

Comperiella bifasciata [Animals Biosecurity]	-
Habrolepis rouxi [Animals Biosecurity]	-
Leptomastix dactylopii [Animals Biosecurity]	parasitic wasp
Metaphycus helvolus [Animals Biosecurity]	-
Metaphycus luteolus [Animals Biosecurity]	_
Metaphycus starleyi [Animals Biosecurity]	_
Metaphycus sumey [Animals Biosecurity] Metaphycus varius [Animals Biosecurity]	-
Psyllaephagus pulvinatus [Animals Biosecurity]	-
Eulophidae	-
•	
Aprostocetus ceroplastae [Animals Biosecurity]	-
<i>Elachertus fenestratus</i> [Animals Biosecurity]	-
Tamarixia radiatus [Animals Biosecurity]	-
Eupelmidae	
Anastatus biproruli [Animals Biosecurity]	-
Eurytomidae	·/ 11 · 1
Bruchophagus fellis	citrus gall midge
Formicidae	1 6
Acromyrmex octospinosus	leaf-cutting ant
Anoplolepis braunsi [Animals Biosecurity]	-
Anoplolepis custodiens	ant
Anoplolepis steingroeveri [Animals Biosecurity]	black ant
Atta cephalotes	leaf-cutting ant
Atta sexdens	-
Atta texana	Texas leaf-cutting ant
Camponotus rufoglaucus	-
Crematogaster castanea	-
Crematogaster liengmei	-
Crematogaster peringueyi [Animals Biosecurity]	cocktail ant
Lepisiota capensis [Animals Biosecurity]	-
Myrmicaria natalensis	-
Pheidole tenuinodis	ant
Polyrhachis schistaceus	ant
Solenopsis invicta [Animals Biosecurity]	red imported fire ant
Tapinoma arnoldi	-
Technomyrmex albipes foreli [Animals Biosecurity]	-
Mymaridae	-
Mymaridae Chaetomymar gracile [Animals Biosecurity]	-
Mymaridae Chaetomymar gracile [Animals Biosecurity] Chaetomymar lepidum [Animals Biosecurity]	-
Mymaridae Chaetomymar gracile [Animals Biosecurity] Chaetomymar lepidum [Animals Biosecurity] Gonatocerus incomptus [Animals Biosecurity]	- - -
Mymaridae Chaetomymar gracile [Animals Biosecurity] Chaetomymar lepidum [Animals Biosecurity] Gonatocerus incomptus [Animals Biosecurity] Platygasteridae	-
Mymaridae Chaetomymar gracile [Animals Biosecurity] Chaetomymar lepidum [Animals Biosecurity] Gonatocerus incomptus [Animals Biosecurity]	-
MymaridaeChaetomymar gracile [Animals Biosecurity]Chaetomymar lepidum [Animals Biosecurity]Gonatocerus incomptus [Animals Biosecurity]PlatygasteridaeAmitus hesperidum [Animals Biosecurity]Amitus spiniferus [Animals Biosecurity]	- - - -
Mymaridae Chaetomymar gracile [Animals Biosecurity] Chaetomymar lepidum [Animals Biosecurity] Gonatocerus incomptus [Animals Biosecurity] Platygasteridae Amitus hesperidum [Animals Biosecurity]	- - - -
MymaridaeChaetomymar gracile [Animals Biosecurity]Chaetomymar lepidum [Animals Biosecurity]Gonatocerus incomptus [Animals Biosecurity]PlatygasteridaeAmitus hesperidum [Animals Biosecurity]Amitus spiniferus [Animals Biosecurity]	-
Mymaridae         Chaetomymar gracile [Animals Biosecurity]         Chaetomymar lepidum [Animals Biosecurity]         Gonatocerus incomptus [Animals Biosecurity]         Platygasteridae         Amitus hesperidum [Animals Biosecurity]         Amitus spiniferus [Animals Biosecurity]         Fidiobia citri [Animals Biosecurity]	-
Mymaridae       Chaetomymar gracile [Animals Biosecurity]         Chaetomymar lepidum [Animals Biosecurity]         Gonatocerus incomptus [Animals Biosecurity]         Platygasteridae         Amitus hesperidum [Animals Biosecurity]         Amitus spiniferus [Animals Biosecurity]         Fidiobia citri [Animals Biosecurity]         Scelionidae	- - - - - -
MymaridaeChaetomymar gracile [Animals Biosecurity]Chaetomymar lepidum [Animals Biosecurity]Gonatocerus incomptus [Animals Biosecurity]PlatygasteridaeAmitus hesperidum [Animals Biosecurity]Amitus spiniferus [Animals Biosecurity]Fidiobia citri [Animals Biosecurity]ScelionidaeTrissolcus oeneus [Animals Biosecurity]Trissolcus oenone [Animals Biosecurity]Trissolcus oenone [Animals Biosecurity]Trissolcus ogyges [Animals Biosecurity]	- - - - - - -
Mymaridae       Chaetomymar gracile [Animals Biosecurity]         Chaetomymar lepidum [Animals Biosecurity]         Gonatocerus incomptus [Animals Biosecurity]         Platygasteridae         Amitus hesperidum [Animals Biosecurity]         Amitus spiniferus [Animals Biosecurity]         Fidiobia citri [Animals Biosecurity]         Scelionidae         Trissolcus oeneus [Animals Biosecurity]         Trissolcus oenone [Animals Biosecurity]	-
MymaridaeChaetomymar gracile [Animals Biosecurity]Chaetomymar lepidum [Animals Biosecurity]Gonatocerus incomptus [Animals Biosecurity]PlatygasteridaeAmitus hesperidum [Animals Biosecurity]Amitus spiniferus [Animals Biosecurity]Fidiobia citri [Animals Biosecurity]ScelionidaeTrissolcus oeneus [Animals Biosecurity]Trissolcus oenone [Animals Biosecurity]Trissolcus oenone [Animals Biosecurity]Trissolcus ogyges [Animals Biosecurity]	-
Mymaridae         Chaetomymar gracile [Animals Biosecurity]         Chaetomymar lepidum [Animals Biosecurity]         Gonatocerus incomptus [Animals Biosecurity]         Platygasteridae         Amitus hesperidum [Animals Biosecurity]         Amitus spiniferus [Animals Biosecurity]         Fidiobia citri [Animals Biosecurity]         Fidiobia citri [Animals Biosecurity]         Scelionidae         Trissolcus oeneus [Animals Biosecurity]         Trissolcus oenone [Animals Biosecurity]         Trissolcus ogyges [Animals Biosecurity]         Signiphoridae	- - - - - - - -
MymaridaeChaetomymar gracile [Animals Biosecurity]Chaetomymar lepidum [Animals Biosecurity]Gonatocerus incomptus [Animals Biosecurity]PlatygasteridaeAmitus hesperidum [Animals Biosecurity]Amitus spiniferus [Animals Biosecurity]Fidiobia citri [Animals Biosecurity]Fidiobia citri [Animals Biosecurity]ScelionidaeTrissolcus oeneus [Animals Biosecurity]Trissolcus oenone [Animals Biosecurity]Trissolcus ogyges [Animals Biosecurity]SigniphoridaeSigniphora fax [Animals Biosecurity]	- - - - - - - - - -
Mymaridae         Chaetomymar gracile [Animals Biosecurity]         Chaetomymar lepidum [Animals Biosecurity]         Gonatocerus incomptus [Animals Biosecurity]         Platygasteridae         Amitus hesperidum [Animals Biosecurity]         Fidiobia citri [Animals Biosecurity]         Fidiobia citri [Animals Biosecurity]         Fidiobia citri [Animals Biosecurity]         Scelionidae         Trissolcus oenous [Animals Biosecurity]         Trissolcus ogyges [Animals Biosecurity]         Signiphoridae         Signiphora fax [Animals Biosecurity]         Signiphora flavella [Animals Biosecurity]	
MymaridaeChaetomymar gracile [Animals Biosecurity]Chaetomymar lepidum [Animals Biosecurity]Gonatocerus incomptus [Animals Biosecurity]PlatygasteridaeAmitus hesperidum [Animals Biosecurity]Amitus spiniferus [Animals Biosecurity]Fidiobia citri [Animals Biosecurity]Fidiobia citri [Animals Biosecurity]ScelionidaeTrissolcus oeneus [Animals Biosecurity]Trissolcus ogyges [Animals Biosecurity]SigniphoridaeSigniphora fax [Animals Biosecurity]Signiphora flavella [Animals Biosecurity]Signiphora perpauca [Animals Biosecurity]	
Mymaridae       Chaetomymar gracile [Animals Biosecurity]         Chaetomymar lepidum [Animals Biosecurity]       Gonatocerus incomptus [Animals Biosecurity]         Platygasteridae       Amitus hesperidum [Animals Biosecurity]         Amitus hesperidum [Animals Biosecurity]       Fidiobia citri [Animals Biosecurity]         Fidiobia citri [Animals Biosecurity]       Fidiobia citri [Animals Biosecurity]         Scelionidae       Trissolcus oeneus [Animals Biosecurity]         Trissolcus oenone [Animals Biosecurity]       Trissolcus ogyges [Animals Biosecurity]         Signiphoridae       Signiphora fax [Animals Biosecurity]         Signiphora flavella [Animals Biosecurity]       Signiphora flavella [Animals Biosecurity]         Trichogrammatidae       Signiphora perpauca [Animals Biosecurity]	
Mymaridae       Chaetomymar gracile [Animals Biosecurity]         Chaetomymar lepidum [Animals Biosecurity]         Gonatocerus incomptus [Animals Biosecurity]         Platygasteridae         Amitus hesperidum [Animals Biosecurity]         Amitus spiniferus [Animals Biosecurity]         Fidiobia citri [Animals Biosecurity]         Fidiobia citri [Animals Biosecurity]         Scelionidae         Trissolcus oeneus [Animals Biosecurity]         Trissolcus oenone [Animals Biosecurity]         Trissolcus ogyges [Animals Biosecurity]         Signiphoridae         Signiphora fax [Animals Biosecurity]         Signiphora flavella [Animals Biosecurity]         Signiphora flavella [Animals Biosecurity]         Signiphora perpauca [Animals Biosecurity]         Vespidae	- - - - - - - - - - - - - - - - -
Mymaridae       Chaetomymar gracile [Animals Biosecurity]         Chaetomymar lepidum [Animals Biosecurity]       Gonatocerus incomptus [Animals Biosecurity]         Platygasteridae       Amitus hesperidum [Animals Biosecurity]         Amitus hesperidum [Animals Biosecurity]       Amitus spiniferus [Animals Biosecurity]         Fidiobia citri [Animals Biosecurity]       Fidiobia citri [Animals Biosecurity]         Scelionidae       Trissolcus oeneus [Animals Biosecurity]         Trissolcus oenone [Animals Biosecurity]       Trissolcus ogyges [Animals Biosecurity]         Signiphoridae       Signiphora fax [Animals Biosecurity]         Signiphora fax [Animals Biosecurity]       Signiphora flavella [Animals Biosecurity]         Signiphora perpauca [Animals Biosecurity]       Signiphora perpauca [Animals Biosecurity]         Signiphora segne platneri [Animals Biosecurity]       Signiphora perpauca [Animals Biosecurity]         Vespidae       Polistes spp. [Animals Biosecurity]	- - - - - - - - - - - - - - - - - - -
Mymaridae       Chaetomymar gracile [Animals Biosecurity]         Chaetomymar lepidum [Animals Biosecurity]       Gonatocerus incomptus [Animals Biosecurity]         Gonatocerus incomptus [Animals Biosecurity]       Platygasteridae         Amitus hesperidum [Animals Biosecurity]       Amitus spiniferus [Animals Biosecurity]         Amitus spiniferus [Animals Biosecurity]       Fidiobia citri [Animals Biosecurity]         Fidiobia citri [Animals Biosecurity]       Scelionidae         Trissolcus oeneus [Animals Biosecurity]       Trissolcus oenone [Animals Biosecurity]         Trissolcus ogyges [Animals Biosecurity]       Signiphoridae         Signiphora fax [Animals Biosecurity]       Signiphora fax [Animals Biosecurity]         Signiphora perpauca [Animals Biosecurity]       Signiphora perpauca [Animals Biosecurity]         Signiphora perpauca [Animals Biosecurity]       Signiphora perpauca [Animals Biosecurity]         Signiphora perpauca [Animals Biosecurity]       Signiphora perpauca [Animals Biosecurity]         Vespidae       Polistes spp. [Animals Biosecurity]	- - - - - - - - - - - - -
Mymaridae       Chaetomymar gracile [Animals Biosecurity]         Chaetomymar lepidum [Animals Biosecurity]       Gonatocerus incomptus [Animals Biosecurity]         Platygasteridae       Amitus hesperidum [Animals Biosecurity]         Amitus hesperidum [Animals Biosecurity]       Amitus spiniferus [Animals Biosecurity]         Amitus spiniferus [Animals Biosecurity]       Fidiobia citri [Animals Biosecurity]         Fidiobia citri [Animals Biosecurity]       Scelionidae         Trissolcus oeneus [Animals Biosecurity]       Trissolcus oenone [Animals Biosecurity]         Trissolcus ogyges [Animals Biosecurity]       Signiphoridae         Signiphora fax [Animals Biosecurity]       Signiphora fax [Animals Biosecurity]         Signiphora perpauca [Animals Biosecurity]       Signiphora perpauca [Animals Biosecurity]         Vespidae       Polistes spp. [Animals Biosecurity]         Isoptera       Polistes spp. [Animals Biosecurity]	- - - - - - - - - - - - paper wasps termite
Mymaridae       Chaetomymar gracile [Animals Biosecurity]         Chaetomymar lepidum [Animals Biosecurity]       Gonatocerus incomptus [Animals Biosecurity]         Platygasteridae       Amitus hesperidum [Animals Biosecurity]         Amitus spiniferus [Animals Biosecurity]       Fidiobia citri [Animals Biosecurity]         Fidiobia citri [Animals Biosecurity]       Fidiobia citri [Animals Biosecurity]         Scelionidae       Trissolcus oeneus [Animals Biosecurity]         Trissolcus oenone [Animals Biosecurity]       Trissolcus ogyges [Animals Biosecurity]         Signiphoridae       Signiphora fax [Animals Biosecurity]         Signiphora fax [Animals Biosecurity]       Signiphora flavella [Animals Biosecurity]         Signiphora perpauca [Animals Biosecurity]       Signiphora perpauca [Animals Biosecurity]         Vespidae       Polistes spp. [Animals Biosecurity]         Isoptera       Termitidae	
Mymaridae       Chaetomymar gracile [Animals Biosecurity]         Chaetomymar lepidum [Animals Biosecurity]       Gonatocerus incomptus [Animals Biosecurity]         Platygasteridae       Amitus hesperidum [Animals Biosecurity]         Amitus hesperidum [Animals Biosecurity]       Amitus spiniferus [Animals Biosecurity]         Fidiobia citri [Animals Biosecurity]       Fidiobia citri [Animals Biosecurity]         Scelionidae       Trissolcus oeneus [Animals Biosecurity]         Trissolcus oenone [Animals Biosecurity]       Trissolcus ogyges [Animals Biosecurity]         Signiphoridae       Signiphora fax [Animals Biosecurity]         Signiphora fax [Animals Biosecurity]       Signiphora flavella [Animals Biosecurity]         Signiphora perpauca [Animals Biosecurity]       Signiphora perpauca [Animals Biosecurity]         Vespidae       Polistes spp. [Animals Biosecurity]         Isoptera       Termitidae         Odontotermes lokanandi       Odontotermes lokanandi	
Mymaridae       Chaetomymar gracile [Animals Biosecurity]         Chaetomymar lepidum [Animals Biosecurity]       Gonatocerus incomptus [Animals Biosecurity]         Gonatocerus incomptus [Animals Biosecurity]       Platygasteridae         Amitus hesperidum [Animals Biosecurity]       Amitus hesperidum [Animals Biosecurity]         Amitus spiniferus [Animals Biosecurity]       Fidiobia citri [Animals Biosecurity]         Fidiobia citri [Animals Biosecurity]       Fidiobia citri [Animals Biosecurity]         Scelionidae       Trissolcus oeneus [Animals Biosecurity]         Trissolcus oenone [Animals Biosecurity]       Trissolcus ogyges [Animals Biosecurity]         Signiphoridae       Signiphora fax [Animals Biosecurity]         Signiphora flavella [Animals Biosecurity]       Signiphora perpauca [Animals Biosecurity]         Signiphora perpauca [Animals Biosecurity]       Signiphora perpauca [Animals Biosecurity]         Signiphora perpauca [Animals Biosecurity]       Signiphora perpauca [Animals Biosecurity]         Signiphora perpauca [Animals Biosecurity]       Signiphora perpauca [Animals Biosecurity]         Vespidae       Polistes spp. [Animals Biosecurity]         Isoptera       Termitidae         Odontotermes lokanandi       Lepidoptera	termite
Mymaridae       Chaetomymar gracile [Animals Biosecurity]         Chaetomymar lepidum [Animals Biosecurity]       Gonatocerus incomptus [Animals Biosecurity]         Gonatocerus incomptus [Animals Biosecurity]       Platygasteridae         Amitus hesperidum [Animals Biosecurity]       Amitus hesperidum [Animals Biosecurity]         Amitus spiniferus [Animals Biosecurity]       Fidiobia citri [Animals Biosecurity]         Fidiobia citri [Animals Biosecurity]       Fidiobia citri [Animals Biosecurity]         Scelionidae       Trissolcus oeneus [Animals Biosecurity]         Trissolcus oeneus [Animals Biosecurity]       Trissolcus ogyges [Animals Biosecurity]         Signiphoridae       Signiphora fax [Animals Biosecurity]         Signiphora flavella [Animals Biosecurity]       Signiphora flavella [Animals Biosecurity]         Signiphora perpauca [Animals Biosecurity]       Signiphora perpauca [Animals Biosecurity]         Signiphora perpauca [Animals Biosecurity]       Signiphora perpauca [Animals Biosecurity]         Signiphora perpauca [Animals Biosecurity]       Signiphora perpauca [Animals Biosecurity]         Vespidae       Polistes spp. [Animals Biosecurity]         Isoptera       Codontotermes lokanandi         Lepidoptera       Arctiidae	

Holcocera iceryaeella Cosmopterigidae Pyroderces rileyi Geometridae Anacamptodes fragilaria Ascotis selenaria reciprocaria Gymnoscelis rufifasciata Hyposidra talaca Gracillariidae Phyllocnistis citrella Hepialidae Endoclita excrescens Endoclita sinensis Lvcaenidae Virachola isocrates Lymantriidae Orgvia vetusta Metarbelidae Indarbela tetraonis Noctuidae Arcte coerula Eudocima fullonia Helicoverpa assulta Helicoverpa punctigera Tiracola plagiata Xylomyges curialis Nymphalidae Charaxes jasius Oecophoridae Psorosticha melanocrepida Psorosticha zizyphi Stathmopoda auriferella **Papilionidae** Papilio aegeus aegeus Papilio anactus Papilio cresphontes Papilio dardanus cenea Papilio demodocus Papilio demoleus demoleus Papilio helenus nicconicolens Papilio machaon asiatica Papilio memnon Papilio memnon thunbergii Papilio nireus lyaeus Papilio polytes polytes Papilio protenor demetrius Papilio xuthus Papilio zelicaon Psychidae Eumeta hardenbergi Eumeta japonica Eumeta minuscula Eumeta moddermanni Hyalarcta huebneri **Pvralidae** Apomyelois ceratoniae Tortricidae Adoxophyes sp. Amorbia cuneana Archips argyrospilus Archips machlopis Archips occidentalis

pink scavenger caterpillar koa haole looper citrus looper geometrid moth citrus leafminer Japanese swift moth pomegranate butterfly western tussock moth stem borer fruit-piercing moth fruit-piercing moth cape gooseberry budworm oriental tobacco budworm banana fruit caterpillar noctuid moth nymphalid butterfly citrus leafroller citrus leafroller apple heliodinid small citrus butterfly orange dog orange dog citrus swallowtail citrus swallowtail anise swallowtail tea bagworm leaf case moth date pyralid leafroller fruit tree leafroller leafroller leafroller

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

#### Phytoseiidae

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
<i>Tenuipalpus emeticae</i> [Animals Biosecurity]	-
Tuckerella ornata	-
Ultratenuipalpus gonianaensis	tenuipalpid mite
Tetranychidae	·····F···F···
Calacarus citrifolii	clover mite
Eotetranychus kankitus	tetranychid mite
Eotetranychus lewisi	big beaked plum mite
Eotetranychus yumensis	Yumi spider mite
Eutetranychus africanus	tetranychid mite
Eutetranychus banksi	Texus citrus mite
Eutetranychus orientalis	pear leaf blister mite
Oligonychus mangiferus	mango spider mite
Tetranychus kanzawai	kanzawa mite
Tuckerellidae	Kalizawa linte
Tuckerella knorri	hawthorn spider mite
	nawmorn spider inte
Spider	
Arachnida	
Araneae	
Clubionidae	
Ciubiolituae	
Cheiracanthium mildei [Animals Biosecurity]	_
Cheiracanthium mildei [Animals Biosecurity]	-
Theridiidae	-
- · · ·	-
<b>Theridiidae</b> <i>Theridion</i> sp. [Animals Biosecurity]	-
Theridiidae Theridion sp. [Animals Biosecurity] Mollusc	-
Theridiidae Theridion sp. [Animals Biosecurity] Mollusc Gastropoda	-
Theridiidae Theridion sp. [Animals Biosecurity] Mollusc Gastropoda Stylommatophora	-
Theridiidae Theridion sp. [Animals Biosecurity] Mollusc Gastropoda Stylommatophora Achatinidae	-
Theridiidae Theridion sp. [Animals Biosecurity] Mollusc Gastropoda Stylommatophora Achatinidae Achatinia immaculata	- - snail
Theridiidae Theridion sp. [Animals Biosecurity] Mollusc Gastropoda Stylommatophora Achatinidae Achatina immaculata Lissachatina immaculata	- - snail
Theridiidae Theridion sp. [Animals Biosecurity] Mollusc Gastropoda Stylommatophora Achatinidae Achatina immaculata Lissachatina immaculata Bradybaenidae	
Theridiidae Theridion sp. [Animals Biosecurity] Mollusc Gastropoda Stylommatophora Achatinidae Achatina immaculata Lissachatina immaculata Bradybaenidae Acusta despecta sieboldiana	- - snail snail
Theridiidae         Theridion sp. [Animals Biosecurity]         Mollusc         Gastropoda         Stylommatophora         Achatinidae         Achatina immaculata         Lissachatina immaculata         Bradybaenidae         Acusta despecta sieboldiana         Subulinidae	snail
Theridiidae Theridion sp. [Animals Biosecurity] Mollusc Gastropoda Stylommatophora Achatinidae Achatina immaculata Lissachatina immaculata Bradybaenidae Acusta despecta sieboldiana Subulinidae Rumina decollata	
Theridiidae Theridion sp. [Animals Biosecurity] Mollusc Gastropoda Stylommatophora Achatinidae Achatina immaculata Lissachatina immaculata Bradybaenidae Acusta despecta sieboldiana Subulinidae Rumina decollata Urocyclidae	snail
Theridiidae Theridion sp. [Animals Biosecurity] Mollusc Gastropoda Stylommatophora Achatinidae Achatina immaculata Lissachatina immaculata Bradybaenidae Acusta despecta sieboldiana Subulinidae Rumina decollata Urocycluae Urocyclus flavescens	snail
Theridiidae Theridion sp. [Animals Biosecurity] Mollusc Gastropoda Stylommatophora Achatinidae Achatina immaculata Lissachatina immaculata Bradybaenidae Acusta despecta sieboldiana Subulinidae Rumina decollata Urocyclidae	snail
Theridiidae Theridion sp. [Animals Biosecurity] Mollusc Gastropoda Stylommatophora Achatinidae Achatina immaculata Lissachatina immaculata Bradybaenidae Acusta despecta sieboldiana Subulinidae Rumina decollata Urocyclus flavescens Urocyclus kirkii	snail
Theridiidae Theridion sp. [Animals Biosecurity] Mollusc Gastropoda Stylommatophora Achatinidae Achatina immaculata Lissachatina immaculata Bradybaenidae Acusta despecta sieboldiana Subulinidae Rumina decollata Urocycluae Urocyclus flavescens Urocyclus kirkii Fungus	snail
Theridiidae Theridion sp. [Animals Biosecurity] Mollusc Gastropoda Stylommatophora Achatinidae Achatina immaculata Lissachatina immaculata Bradybaenidae Acusta despecta sieboldiana Subulinidae Rumina decollata Urocycluae Urocyclus flavescens Urocyclus kirkii Fungus Ascomycota	snail
Theridiidae Theridion sp. [Animals Biosecurity] Mollusc Gastropoda Stylommatophora Achatinidae Achatina immaculata Lissachatina immaculata Bradybaenidae Acusta despecta sieboldiana Subulinidae Rumina decollata Urocycliae Urocyclus flavescens Urocyclus kirkii	snail

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

Hirsutella thompsonii [Animals Biosecurity]	
Isaria sp. [Animals Biosecurity]	-
Oidium tingitaninum	powdery mildew
Sporobolomyces roseus	
Stenella sp.	
Zygomycota: Zygomycetes	
Glomales	
Glomaceae	
Glomus etunicatum [Animals Biosecurity]	
Mucorales	
Syncephalastraceae	
Syncephalastrum racemosum	
Bacterium	
Bacterium family unknown	
Liberobacter africanum	citrus greening bacterium
Liberobacter asiaticum	citrus greening bacterium
Liberobacter sp.	citrus greening bacterium
Spiroplasma citri	citrus stubborn
Pseudomonadaceae	a anna a la ina
Burkholderia cepacia	sour skin
Xanthomonas axonopodis pv. citri	citrus canker
Xanthomonas campestris pv. aurantifolii	-
Xanthomonas campestris pv. citrumelo	citrus bacterial spot Pierce's disease
Xylella fastidiosa Xylella fastidiosa zv. situi	
Xylella fastidiosa pv. citri	variegated chlorosis of citrus
Virus	
Indian citrus mosaic badnavirus	
citrus cachexia viroid	
citrus chlorotic dwarf	
citrus infectious variegation ilarvirus	
citrus infectious variegation ilarvirus [crinkly leaf	
strain]	
citrus leaf rugose ilarvirus	_
citrus leathery leaf virus	_
citrus leprosis rhabdovirus	_
citrus mosaic virus	_
citrus ringspot virus	_
citrus tatter leaf capillovirus	_
citrus tristeza closterovirus [strains not in New Zealand]	_
citrus variable viroid	_
citrus viroids (groups I-IV)	-
citrus yellow mosaic badnavirus	_
citrus yellow mottle virus	-
dwarfing factor viroid	-
navel orange infectious mottling virus	-
satsuma dwarf nepovirus	-
satsuma dwarf nepovirus [Natsudaidai dwarf strain]	-
xyloporosis viroid	-
yellow vein clearing of lemon	-
Phytoplasma	
Candidatus Phytoplasma aurantifolia	witches' broom phytoplasma
rubbery wood	-
- -	
Disease of unknown aetiology	
Australian citrus dieback	-
blind pocket	-
bud union disease	-
citrus blight disease	-
citrus fatal yellows	-

citrus impietratura disease citrus sunken vein disease concave gum cristacortis 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	
Burkholderia cepacia	Growing season inspection for symptom expression.
Liberobacter africanum	Country freedom OR graft-inoculated sweet oranges, orange pineapple, 18 to 25°C.
Liberobacter asiaticum	Country freedom OR graft-inoculated sweet oranges, orange pineapple, 18 to 25°C.
Spiroplasma citri	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 (> $30^{\circ}$ C) and incubate cultures at $32^{\circ}$ C.
Xanthomonas	Country freedom/shoot tip grafting bioassay/detached leaf bioassay/ PCR OR
axonopodis pv. citri	suitable citrus indicator.
Xanthomonas	Country freedom/shoot tip grafting bioassay/detached leaf bioassay/ PCR OR
<i>campestris</i> pv.	suitable citrus indicator.
aurantifolii	
Xanthomonas	Country freedom/shoot tip grafting bioassay/detached leaf bioassay/ PCR OR
<i>campestris</i> pv. <i>citrumelo</i>	suitable citrus indicator. Country freedom/shoot tip grafting bioassay/ PCR/ELISA OR suitable citrus
Xylella fastidiosa	indicator.
Xylella fastidiosa pv.	Country freedom/shoot tip grafting bioassay PCR/ELISA OR suitable citrus
citri	indicator.
Virus	indicator.
citrus chlorotic dwarf	Country freedom OR graft inoculated rough lemon at cool temperatures
citius ciliorotic uwari	temperatures 18 to 25°C.
citrus infectious	Country freedom OR graft inoculated citron, sour orange, lemon, cidro etrog. Grow
variegation ilarvirus	indicators at cool temperatures 18 to 25°C.
citrus infectious	Country freedom OR graft inoculated citron, sour orange, lemon, cidro etrog. Grow
variegation ilarvirus	indicators at cool temperatures 18 to 25°C.
[crinkly leaf strain]	
citrus leaf rugose	Country freedom OR graft inoculated Mexican lime or sour orange. Grow
ilarvirus	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	Country freedom OR graft inoculated sweet orange. Grow indicators at cool
rhabdovirus	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	Country freedom OR graft inoculated Rusk citrange, rough lemon, Citrus excelsa,
capillovirus	citrange (Troyer). Grow indicators at cool temperatures 18 to 25°C.
citrus tristeza	Country freedom OR ELISA, graft inoculated Mexican lime, sour orange and <i>Citrus</i>
closterovirus [strains not	<i>excelsa</i> . Grow indicators at cool temperatures 18 to 25°C.
in New Zealand] citrus yellow mosaic	Country freedom OR graft inoculated sweet orange, sour orange and citron.
badnavirus	Country freedom OK gran mocurated sweet orange, sour orange and chron.
citrus yellow mottle	Country freedom OR other suitable test.
virus	
Indian citrus mosaic	Country freedom OR graft inoculated sweet orange at hot temperature 27 to 32°C.
badnavirus	
navel orange infectious	Country freedom OR graft inoculated Satsums. Grow indicators at cool
mottling virus	temperatures 18 to 25°C.
satsuma dwarf	Country freedom OR graft inoculated satsums. Grow indicators at cool temperatures
nepovirus	18 to 25°C.

ORGANISM TYPES	MPI ACCEPTABLE METHODS
satsuma dwarf	Country freedom OR graft inoculated satsums. Grow indicators at cool temperatures
nepovirus [Natsudaidai	18 to 25°C.
dwarf strain]	
yellow vein clearing of	Country freedom OR graft inoculated Mexican lime or sour orange. Grow indicators
lemon	at cool temperatures 18 to 25°C.
Viroid	
citrus cachexia viroid	Country freedom OR SPAGE and PCR on graft inoculated citron extract. Grow
citius cachexia viroid	citron at hot temperature 27 to 32°C.
citrus variable viroid	Country freedom OR SPAGE and PCR on graft inoculated citron extract. Grow
citius variable virolu	citron at hot temperature 27 to 32°C.
citrus viroids (groups I-	Country freedom OR SPAGE and PCR on graft inoculated citron extract. Grow
IV)	citron at hot temperature 27 to 32°C.
dwarfing factor viroid	Country freedom OR SPAGE and PCR on graft inoculated citron extract. Grow
dwarming factor virold	citron at hot temperature 27 to 32°C.
xyloporosis viroid	Country freedom OR SPAGE and PCR on graft inoculated citron extract or
xyloporosis virold	mandarin (Parson's Special). Grow Citron at hot temperature 27 to 32°C.
Discoss of unknown oot	
<b>Disease of unknown aet</b> Australian citrus	Country freedom OR other suitable test
dieback	Country needoni OK otner suitable test
	Country freedom OR graft inoculated dweet tangor, sweet orange or <i>Citrus excelsa</i> .
blind pocket	Grow indicators at cool temperatures 18 to 25°C.
bud union disease	
	Country freedom OR other suitable test None (cuttings collected from blight free area). Inspect source tree after 2 years
citrus blight disease	
	before releasing from quarantine.
citrus fatal yellows	Country freedom OR graft inoculated <i>Citrus macrophylla</i> .
citrus impietratura	Country freedom OR graft inoculated dweet tangor or sweet orange. Growth
disease	indicators at cool temperatures 18 to 25°C.
citrus sunken vein	Country freedom OR other suitable test.
disease	Construction from the OD and the state of th
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.
cristacortis	Country freedom OR graft inoculated dweet tangor, sweet orange or <i>Citrus excelsa</i> .
1.	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> .
1 1	Grow indicators at cool temperatures 18 to 25°C.
gummy bark	Country freedom OR SPAGE of graft inoculated citron extract. Grow citron at hot
la ser la Bassa	temperature 27 to 32°C.
kassala disease	Country freedom, cuttings collected from kassala free area.
lemon sieve tube	Country freedom OR other suitable test.
necrosis	Country for down OD other witchle test
shell bark of lemons	Country freedom OR other suitable test.
zonate chlorosis	Country freedom, cuttings collected from kassala free area.
Phytoplasma	
Candidatus phytoplasma	Country freedom OR graft inoculated lime. Grow indicators at cool temperatures 18
aurantifolia	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.; Phellinus noxius; Phytophthora ramorum; Uredinales; virus diseases; Xylella fastidiosa

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

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

- a. Conditions for Ceratocystis fimbriata (section 2.2.1.8)
- b. Conditions for Phytophthora ramorum (section 2.2.1.11)
- c. Conditions for Xylella fastidiosa (section 2.2.1.12)
   Guidance for importers: The minimum quarantine period will be <u>6 months</u> for nursery stock sourced from countries <u>not</u> recognised by MPI as free from *Xylella fastidiosa*
- d. Conditions for Phellinus noxius (section 2.2.1.13)

#### **B.** For Tissue Cultures

- a. Conditions for *Xylella fastidiosa* on tissue culture (section 2.2.2.5)
   Guidance for importers: There will be a minimum quarantine period of <u>6 months in a Level 2 PEQ</u> greenhouse, for tissue cultures from countries <u>not</u> recognised by MPI as free from *Xylella fastidiosa*.
- b. 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 3B 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 greenhouse facility accredited to Facility Standard: Post Entry Quarantine for Plants (MPI.STD.PEQ).

#### **Quarantine Period and Inspection, Testing and Treatment Requirements:**

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 3B greenhouse facility accredited to Facility Standard: Post Entry Quarantine for Plants (MPI.STD.PEQ).

**Quarantine Period and Inspection, Testing and Treatment Requirements**: 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 **Buprestidae** Chrysobothris mali Sphenoptera dadkhani Sphenoptera lafertei Cerambycidae Aeolesthes holosericea Aeolesthes sarta Chrvsomelidae Chaetocnema confinis Diabrotica speciosa Monolepta australis Prasoidea sericea Curculionidae Eremnus atratus Eremnus cerealis Eremnus setulosus Naupactus xanthographus Orthorhinus cylindrirostris Otiorhynchus armadillo **Scolvtidae** Scolytus japonicus Scolytus mali Scolytus rugulosus Xyleborus dispar Xyleborus pfeili Xyleborus rubricollis *Xyleborus xylographus* Xylosandrus crassiusculus **Diptera** Cecidomyiidae Resseliella oculiperda Muscidae Atherigona orientalis **Syrphidae** Melanostoma agrolas Tephritidae Bactrocera cucurbitae *Ceratitis capitata* Hemiptera Coreidae Amblypelta cocophaga Amblypelta nitida Leptoglossus occidentalis Lygaeidae Macchiademus diplopterus Nysius vinitor

#### black borer

Pacific flatheaded borer flatheaded borer flatheaded peach tree borer

cherry stem borer quetta borer

sweet potato flea beetle cucumber beetle red-shouldered leaf beetle leaf beetle

black weevil western province grain worm grey weevil fruit tree weevil elephant weevil Weevil

Japanese bark beetle larger shot-hole borer shot-hole borer ambrosia beetle bark beetle black twig borer pin-hole borer bark beetle

red bud borer

muscid fly

melon fly Mediterranean fruit fly

coconut nut fall bug fruit-spotting bug coreid bug

grain chinch bug Rutherglen bug

Oxycarenus arctatus Oxycarenus exitiotus Miridae Creontiades dilutus Lygus cerasi Lygus elisus Lygus lineolaris Pentatomidae Acrosternum hilare Antestiopsis orbitalis Euschistus servus Tessaratoma papillosa Homoptera Aleyrodidae Parabemisia myricae Aphididae Aphis spiraecola [vector] Brachycaudus amygdalinus Brachycaudus cardui Brachycaudus schwartzi Brachycaudus tragopogonis Dysaphis plantaginea Hyalopterus amygdali Hyalopterus pruni Hysteroneura setariae *Myzus varians* Pterochloroides persicae Asterolecaniidae Asterolecanium pustulans Cicadellidae Edwardsiana rosae Coccidae *Ceroplastes floridensis Ceroplastes japonicus* Ceroplastes rubens Eulecanium pruinosum Parthenolecanium persicae Pulvinaria innumerabilis Sphaerolecanium prunastri Diaspididae Aonidiella citrina Aonidiella orientalis Aspidiotus destructor Chrysomphalus aonidum Chrysomphalus dictyospermi Diaspidiotus africanus Diaspidiotus ancylus *Epidiaspis leperii* Parlatoria oleae Pseudaulacaspis pentagona Flatidae Metcalfa pruinosa Margarodidae Icerva sevchellarum Membracidae

coon bug fruit tree stinkbug green mirid pale legume bug tarnished plant bug green stink bug brown stink bug litchee stink bug Japanese bayberry whitefly spirea aphid short tailed almond aphid thistle aphid Aphid rosy apple aphid peach aphid mealy plum aphid rusty plum aphid peach-potato aphid giant brown bark aphid oleander pit scale rose leafhopper Florida wax scale pink wax scale red wax scale frosted scale European peach scale cottony maple scale globose scale yellow scale oriental yellow scale coconut scale Florida red scale dictyospermum scale grey scale Putnam scale Italian pear scale olive scale white peach scale Planthopper

Seychelles scale

Ceresa alta Ceresa bubalus Stictocephala inermis Pseudococcidae Maconellicoccus hirsutus Pseudococcus maritimus **Hymenoptera** Bethylidae Goniozus sp. Eulophidae Colpoclypeus florus Ichneumonidae Phytodietus celcissimus Trichogrammatidae Trichogrammatomyia tortricis Isoptera Kalotermitidae Bifiditermes beesoni Rhinotermitidae Coptotermes heimi Heterotermes indicola Termitidae Microtermes unicolor Odontotermes lokanandi Lepidoptera Arctiidae Hyphantria cunea Choreutidae Choreutis pariana Cossidae Cossus cossus Gelechiidae Anarsia lineatella Recurvaria nanella Recurvaria syrictis Geometridae Alsophila pometaria *Operophtera brumata* Gracillariidae Phyllonorycter cerasicolella Lasiocampidae Malacosoma californicum fragile Malacosoma disstria Limacodidae Doratifera vulnerans Latoia latistriga Lymantriidae Orgyia antiqua Orgyia gonostigma Metarbelidae Indarbela quadrinotata Noctuidae Alabama argillacea Mamestra brassicae Peridroma saucia Schizura concinna Spodoptera frugiperda

buffalo tree hopper pink hibiscus mealybug grape mealybug Termite Termite fall webworm apple leaf skeletonizer goat moth peach twig borer lesser bud moth bud moth fall cankerworm winter moth Leafminer tent caterpillar forest tent caterpillar mottled cup moth plum slug rusty tussock moth vapourer moth wood-borer moth cotton leafworm cabbage moth variegated cutworm redhumped caterpillar

fall armyworm

Xestia c-nigrum Notodontidae Datana ministra **Oecophoridae** Cryptophasa melanostigma Maroga melanostigma **Papilionidae** Papilio rutulus **Pyralidae** Conogethes punctiferalis Euzophera bigella Euzophera semifuneralis Ostrinia nubilalis Saturniidae Antheraea polyphemus Sesiidae Synanthedon exitiosa Synanthedon pictipes **Sphingidae** Sphinx drupiferarum Tortricidae Acleris minuta Adoxophyes orana Archips argyrospilus Archips oporanus Archips podanus Archips purpuranus Archips rosanus Argyrotaenia citrana Argyrotaenia ljungiana Argyrotaenia velutinana Choristoneura albaniana Choristoneura rosaceana Cryptoptila immersana Cydia caryana Cydia packardi Cydia prunivora Epichoristodes acerbella Hedya dimidioalba Pandemis cerasana Pandemis heparana Platynota flavedana Platynota idaeusalis Proeulia auraria Proeulia chrysopteris Sparganothis reticulatana Spilonota ocellana Tortrix capensana Tortrix cinderella Orthoptera Acrididae Acanthacris ruficornis Phymateus leprosus Thysanoptera Thripidae Frankliniella tritici Taeniothrips meridionalis

spotted cutworm yellow-necked caterpillar fruit tree borer fruit tree borer yellow peach moth quince moth American plum borer European corn borer emperor moth peach tree borer lesser peach tree borer plum sphinx yellow headed fireworm reticulated tortrix fruit tree leafroller fruit tree tortrix fruit tree tortrix rose leafroller orange tortrix grey red-barred tortrix red-banded leafroller Leafroller oblique-banded leafroller ivy leafroller hickory shuckworm cherry fruitworm lesser appleworm South African carnation worm green budworm barred fruit tree tortrix dark fruit tree tortrix apple bud moth tufted apple bud moth grapevine leafroller grapevine leaf-rolling tortricid Leafroller eyespotted bud moth tortricid moth

bush locust

eastern flower thrips Thrips Thrips angusticeps Thrips flavus

#### Mite

Arachnida Acarina Acaridae Caloglyphus haripuriensis Eriophyidae Acalitus phloecoptes Aceria chinensis Aculus fockeui [vector] Cenopalpus lanceolatisetae Cenopalpus pulcher Epitrimerus pyri Eriophyes armeniacus Eriophyes catacardiae Eriophyes emarginatae Eriophyes inaequalis Eriophyes padi Eriophyes similis Phytoptus insidiosus Tarsonemidae Tarsonemus pruni Tarsonemus randsi Tarsonemus smithi Tenuipalpidae Rhinotergum schestovici Tenuipalpus persicae Tenuipalpus taonicus Tetranychidae Aplonobia citri Bryobia rubrioculus f. sp. prunicola *Eotetranychus boreus* Eotetranychus carpini Eotetranychus carpini borealis Eotetranychus pruni *Eotetranychus uncatus* Eutetranychus africanus Eutetranychus enodes Eutetranychus orientalis Oligonychus gossypii Oligonychus mangiferus Tetranychus canadensis Tetranychus kanzawai Tetranychus neocaledonicus Tetranychus pacificus Tetranychus viennensis

Nematode Secernentea Tylenchida Pratylenchidae Pratylenchus brachyurus

Fungus Ascomycota cabbage thrips flower thrips

acarid mite plum bud gall mite eriophyid mite flat scarlet mite pear leaf blister mite eriophyid mite eriophyid mite eriophyid mite eriophyid mite pineapple fruit mite tarsonemid mite tarsonemid mite Mite false spider mite false spider mite Japanese citrus rust mite brown mite apricot spider mite tetranychid mite vellow spider mite hickory scorch mite Lewis spider mite African red spider mite tetranychid mite pear leaf blister mite tetranychid mite mango spider mite fourspotted spider mite kanzawa mite Mexican spider mite Pacific spider mite twospotted mite

root lesion nematode

Calosphaeriales	
Calosphaeriaceae Calosphaeria pulchella	
Diaporthales	
Valsaceae	
Apiognomonia erythrostoma	
Diaporthe decorticans	_
Diaporthe pennsylvanica	-
Diaporthe pruni	-
Leucostoma cincta (anamorph Cytospora cincta)	Canker
Dothideales	
Botryosphaeriaceae	
Auerswaldiella puccinioides	-
Mycosphaerellaceae	
Mycosphaerella cerasella (anamorph Cercospora	leaf spot
circumscissa)	
Mycosphaerella nigerristigma	-
<i>Mycosphaerella pruni-persicae</i> (anamorph	frosty mildew
Miuraea persica)	
Schizothyriaceae	
Schizothyrium pomi (anamorph Zygophiala	fly speck
jamaicensis)	
Zopfiaceae	
Caryospora putaminum	
unknown Dothideales	h lo als 1 = 1 = 0 = 0
Apiosporina morbosa	black knot
Erysiphales	
Erysiphaceae Sphaerotheca armeniaca	
Leotiales	
Dermateaceae	
Blumeriella jaapii (anamorph Phloeosporella padi)	shot-hole
Dermea cerasi (anamorph Foveostroma	
drupacearum)	
Sclerotiniaceae	
Grovesinia pyramidalis (anamorph Cristulariella	target spot
moricola)	
Lambertella jasmini	Rot
Lambertella pruni	fruit rot
Monilinia fructigena (anamorph Monilia	European brown rot
fructigena)	•
Monilinia kusanoi	leaf blight
Monilinia seaveri	twig blight
Phyllachorales	
Phyllachoraceae	
Polystigma rubrum	
Polystigma ussuriensis	
Taphrinales	
Taphrinaceae	
Taphrina armeniacae	witches' broom
Taphrina communis	bladder fruit
Taphrina confusa	
Taphrina flectans	-
Taphrina pruni-subcordatae	
Xylariales Xylariagoog	
Xylaria longiana	
Xylaria longiana	

Xylaria mali	black root rot
unknown Ascomycota	
Hyponectriaceae	
Physalospora perseae	peach blister canker
Basidiomycota: Agaricomycetes	peden onster ediker
Hymenochaetales	
Hymenochaetaceae	
Phellinus noxius	brown root rot
	010011001101
Basidiomycota: Basidiomycetes	
Agaricales	
Strophariaceae	wood dooov
Pholiota squarrosa	wood decay
Tricholomataceae	
Armillaria bulbosa	armillaria root rot
Armillaria heimii	-
Armillaria luteobubalina	armillaria root rot
Armillaria mellea (anamorph Rhizomorpha	armillaria root rot
subcorticalis)	
Armillaria ostoyae	armillaria root rot
Armillaria tabescens	armillaria root rot
Ganodermatales	
Ganodermataceae	
Ganoderma brownii	wood decay
Ganoderma lobatum	white soft decay
Ganoderma lucidum (anamorph Polyporus	wood rot
lucidus)	
Ganoderma zonatum	butt and stem rot
Hericiales	
Gloeocystidiellaceae	
Gloeocystidiellum porosum	
Laxitextum bicolor	white rot
Hymenochaetales	
Hymenochaetaceae	
Phellinus igniarius	-
Phellinus pomaceus	white heart rot
Phellinus prunicola	-
Microascales	
Ceratocysticaceae	
Ceratocystis fimbriata	_
Poriales	
Coriolaceae	
Coriolopsis gallica	white rot
Fomes fomentarius	wood decay
Fomitopsis cajanderi	wood decay
Fomitopsis cajanaeri Fomitopsis meliae	wood decay
1	brown cubical rot
Fomitopsis pinicola	
Fomitopsis rosea	brown pocket rot
Fomitopsis spraguei	butt rot
Gloeophyllum sepiarium	brown rot
Gloeophyllum trabeum	brown rot
Heterobasidion annosum (anamorph Spiniger	wood rot
meineckellum)	1 1 1
Laetiporus sulphureus (anamorph Sporotrichum	brown cubical rot
versisporum)	
Oxyporus latemarginatus	wood rot
Trametes velutina	Dieback
Trichaptum biforme	white rot

Tyromyces chioneus	white rot
Tyromyces tephroleucus	-
Polyporaceae	
Polyporus squamosus	wood rot
Stereales	
Corticiaceae	
Phanerochaete arizonica	white rot
Phanerochaete crassa	white rot
Cyphellaceae	
Maireina marginata	wood decay
Hyphodermataceae	-
Schizopora paradoxa	wood rot
Sistotremataceae	
Phymatotrichopsis omnivora	Texas root rot
Steccherinaceae	
Irpex lacteus	wood rot
Stereaceae	
Stereum strigoso-zonatum	silver leaf
Thelephorales	
Thelephoraceae	
Corticium koleroga	web blight
Basidiomycota: Teliomycetes	web blight
Uredinales	
Uropyxidaceae	
Tranzschelia pruni-spinosae	leaf rust
unknown Uredinales	icui iust
Leucotelium pruni-persicae	leucotelium white rust
Oomycota: Oomycete	icucotentum white fust
Peronosporales	
Peronosporaceae	
Phytophthora capsici	fruit rot of peppers
Phytophthora ramorum	sudden oak death disease
Zygomycota: Zygomycetes	sudden our dealh disease
Mucorales	
Gilbertellaceae	
Gilbertella persicaria	fruit rot
Mucoraceae	ii uit i ot
Rhizopus circinans	
mitosporic fungi	
unknown mitosporic fungi	
unknown mitosporic fungi	
Catenophora pruni	
Fumago vagans	
mitosporic fungi (Coelomycetes)	
Sphaeropsidales	
Sphaerioidaceae	
Coniothyrium amygdali	
Coniothyrium anygdau Coniothyrium prunicolum	coniothyrium disease
Cytospora persicae	comouryrium disease
Diplodia pruni	
Diplodia vulgaris Diploding persiage	
Diplodina persicae	
Nattrassia mangiferae	stem-end rot
Phoma persicae	leaf spot
Phomopsis cinerascens	fig canker
Phomopsis perseae	fruit rot
Phyllosticta congesta	phyllosticta rot

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

Cherry rosette virus	Cherry rosette disease associated virus
Cherry rough fruit virus	-
Cherry rusty mottle associated virus	Cherry rusty mottle virus
Cherry twisted leaf associated virus	Cherry twisted leaf virus
Myrobalan latent ringspot virus	-
Peach enation virus	-
Peach mosaic virus	-
Peach rosette mosaic virus	<u>-</u>
Peach yellow leaf virus	<u>-</u>
Petunia asteroid mosaic virus	<u>-</u>
Plum bark necrosis stem pitting-associated virus	_
Plum pox virus	_
Prunus virus S	_
Raspberry ringspot virus	_
Sowbane mosaic virus	<u>-</u>
Stocky prune virus	_
Tomato bushy stunt virus	_
Tomato ringspot virus	_
Tomato Hingspot virus	-
Viroid	
Hop stunt viroid	-
Phytoplasma	
Apricot chlorotic leafroll phytoplasma	-
Apricot decline phytoplasma	-
Apricot witches broom phytoplasma	-
Cherry albino phytoplasma	_
Cherry blossom anomaly	_
Cherry lethal yellows	_
Cherry Moliere disease phytoplasma	_
Cherry western X anomaly	_
European stone fruit yellows phytoplasma	_
Peach decline phytoplasma	_
Peach red suture phytoplasma	_
Peach rosette phytoplasma	_
Peach vein clearing phytoplasma	<u>-</u>
Peach X-disease phytoplasma	<u>-</u>
Peach yellow leafroll phytoplasma	<u>-</u>
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 <u>one</u> of the approved insecticide treatments
	(Refer to "Approved Treatments for Prunus")
Mite	Visual inspection AND <u>one</u> of the approved miticide treatments (Refer
	to "Approved Treatments for Prunus")
Fungi	All cuttings must be dipped in 1% sodium hypochlorite for 2 minutes
-	upon arrival in the post entry quarantine facility.
	Growing season inspection in PEQ for symptom expression AND
	plating on potato dextrose agar (PDA).
	For plating (on PDA), leaf material samples for testing to be
	collected from actively growing plants. Each plant in PEQ must be
	sampled and tested separately.
Ceratocystis fimbriata sensu lato	Growing season inspection in PEQ for disease symptom expression
complex (strains not in New	AND plating on suitable isolation media or PCR.
Zealand)	For cuttings, two separate tests are required. For plants imported as
	tissue culture, only Test 2 is required.
	Test 1 (applies to cuttings only): occurs on cuttings on arrival in
	New Zealand.
	Test 2 (applies to plants from cuttings or tissue culture): stem
	material samples for testing to be collected from actively growing
	plants.
	For plating, each cutting, or plant in PEQ, must be sampled and
	tested separately.
Oomycetes	
Phytophthora capsici	Growing season inspection in PEQ for disease symptom expression
Phytophthora ramorum	PCR.
	For cuttings, two separate tests are required. For plants imported as
	tissue culture, only Test 2 is required.
	Test 1 (applies to cuttings only): occurs on cuttings on arrival in
	New Zealand; the cuttings must be held at the diagnostic facility
	until they have been tested and found negative.
	until they have been tested and found negative. <u>Test 2</u> (applies to plants from cuttings or tissue culture): leaf material
Bacteria	Test 2 (applies to plants from cuttings or tissue culture): leaf material
Bacteria	<u>Test 2</u> (applies to plants from cuttings or tissue culture): leaf material samples for testing to be collected from actively growing plants.
	Test 2 (applies to plants from cuttings or tissue culture): leaf material samples for testing to be collected from actively growing plants.All cuttings must be dipped in 1% sodium hypochlorite for 2 minutes
Bacillus mesentericus vulgatus	Test 2(applies to plants from cuttings or tissue culture): leaf material samples for testing to be collected from actively growing plants.All cuttings must be dipped in 1% sodium hypochlorite for 2 minutes upon arrival in the post entry quarantine facility.
Bacillus mesentericus vulgatus Pseudomonas amygdali	Test 2 (applies to plants from cuttings or tissue culture): leaf material samples for testing to be collected from actively growing plants.All cuttings must be dipped in 1% sodium hypochlorite for 2 minutes upon arrival in the post entry quarantine facility.Growing season inspection in PEQ for disease symptom expression.Growing season inspection in PEQ for disease symptom expression.
Bacillus mesentericus vulgatus Pseudomonas amygdali Pseudomonas syringae	Test 2 (applies to plants from cuttings or tissue culture): leaf material samples for testing to be collected from actively growing plants.All cuttings must be dipped in 1% sodium hypochlorite for 2 minutes upon arrival in the post entry quarantine facility.Growing season inspection in PEQ for disease symptom expression. Growing season inspection in PEQ for disease symptom expression.Growing season inspection in PEQ for disease symptom expression.Growing season inspection in PEQ for disease symptom expression.
Bacillus mesentericus vulgatus Pseudomonas amygdali Pseudomonas syringae pv. cerasicola	Test 2 (applies to plants from cuttings or tissue culture): leaf material samples for testing to be collected from actively growing plants.All cuttings must be dipped in 1% sodium hypochlorite for 2 minutes upon arrival in the post entry quarantine facility.Growing season inspection in PEQ for disease symptom expression.Growing season inspection in PEQ for disease symptom expression.Growing season inspection in PEQ for disease symptom expression.AND plating on King's B medium.
Bacillus mesentericus vulgatus Pseudomonas amygdali Pseudomonas syringae pv. cerasicola Spiroplasma citri	Test 2 (applies to plants from cuttings or tissue culture): leaf material samples for testing to be collected from actively growing plants.All cuttings must be dipped in 1% sodium hypochlorite for 2 minutes upon arrival in the post entry quarantine facility.Growing season inspection in PEQ for disease symptom expression.Growing season inspection in PEQ for disease symptom expression.
Bacillus mesentericus vulgatus Pseudomonas amygdali Pseudomonas syringae pv. cerasicola Spiroplasma citri	Test 2 (applies to plants from cuttings or tissue culture): leaf material samples for testing to be collected from actively growing plants.All cuttings must be dipped in 1% sodium hypochlorite for 2 minutes upon arrival in the post entry quarantine facility.Growing season inspection in PEQ for disease symptom expression.Growing season inspection in PEQ for disease symptom expression.Growing season inspection in PEQ for disease symptom expression.AND plating on King's B medium.
Bacillus mesentericus vulgatus Pseudomonas amygdali Pseudomonas syringae pv. cerasicola Spiroplasma citri Xylella fastidiosa	Test 2(applies to plants from cuttings or tissue culture): leaf material samples for testing to be collected from actively growing plants.All cuttings must be dipped in 1% sodium hypochlorite for 2 minutes upon arrival in the post entry quarantine facility.Growing season inspection in PEQ for disease symptom expression.Growing season inspection in PEQ for disease symptom expression.
Bacillus mesentericus vulgatus Pseudomonas amygdali Pseudomonas syringae pv. cerasicola Spiroplasma citri Xylella fastidiosa <b>Virus</b>	Test 2 (applies to plants from cuttings or tissue culture): leaf material samples for testing to be collected from actively growing plants.All cuttings must be dipped in 1% sodium hypochlorite for 2 minutes upon arrival in the post entry quarantine facility.Growing season inspection in PEQ for disease symptom expression.Growing season inspection in PEQ for disease symptom expression.AND plating on King's B medium.Growing season inspection in PEQ for disease symptom expression.Growing season inspection in PEQ for disease symptom expression.AND PCR.
Bacteria Bacillus mesentericus vulgatus Pseudomonas amygdali Pseudomonas syringae pv. cerasicola Spiroplasma citri Xylella fastidiosa Virus American plum line pattern virus	Test 2 (applies to plants from cuttings or tissue culture): leaf material samples for testing to be collected from actively growing plants.All cuttings must be dipped in 1% sodium hypochlorite for 2 minutes upon arrival in the post entry quarantine facility.Growing season inspection in PEQ for disease symptom expression.Growing season inspection in PEQ for disease symptom expression.AND PCR.ELISA or PCR AND herbaceous indicators Chenopodium quinoa,
Bacillus mesentericus vulgatus Pseudomonas amygdali Pseudomonas syringae pv. cerasicola Spiroplasma citri Xylella fastidiosa <b>Virus</b> American plum line pattern virus	Test 2 (applies to plants from cuttings or tissue culture): leaf material samples for testing to be collected from actively growing plants.All cuttings must be dipped in 1% sodium hypochlorite for 2 minutes upon arrival in the post entry quarantine facility.Growing season inspection in PEQ for disease symptom expression.Growing season inspection in PEQ for disease symptom expression.Growin
Bacillus mesentericus vulgatus Pseudomonas amygdali Pseudomonas syringae pv. cerasicola Spiroplasma citri Xylella fastidiosa Virus American plum line pattern virus Apple stem grooving virus	Test 2 (applies to plants from cuttings or tissue culture): leaf material samples for testing to be collected from actively growing plants.All cuttings must be dipped in 1% sodium hypochlorite for 2 minutes upon arrival in the post entry quarantine facility.Growing season inspection in PEQ for disease symptom expression.Growing season inspection in PEQ for disease symptom expression.AND PCR.ELISA or PCR AND herbaceous indicators Chenopodium quinoa,
Bacillus mesentericus vulgatus Pseudomonas amygdali Pseudomonas syringae pv. cerasicola Spiroplasma citri Xylella fastidiosa Virus American plum line pattern virus Apple stem grooving virus [Prunus-infecting strain]	Test 2 (applies to plants from cuttings or tissue culture): leaf material samples for testing to be collected from actively growing plants.All cuttings must be dipped in 1% sodium hypochlorite for 2 minutes upon arrival in the post entry quarantine facility.Growing season inspection in PEQ for disease symptom expression.Growing season inspection in PEQ for disease symptom expression.AND PCR.ELISA or PCR AND herbaceous indicators Chenopodium quinoa, Cucumis sativus and Nicotiana occidentalisELISA or PCR AND herbaceous indicator Chenopodium quinoa
Bacillus mesentericus vulgatus Pseudomonas amygdali Pseudomonas syringae pv. cerasicola Spiroplasma citri Xylella fastidiosa Virus American plum line pattern virus Apple stem grooving virus [Prunus-infecting strain] Apricot deformation mosaic virus	Test 2 (applies to plants from cuttings or tissue culture): leaf material samples for testing to be collected from actively growing plants.All cuttings must be dipped in 1% sodium hypochlorite for 2 minutes upon arrival in the post entry quarantine facility.Growing season inspection in PEQ for disease symptom expression.Growing season inspection in PEQ for disease symptom expression.ELISA or PCR AND herbaceous indicators Chenopodium quinoa, Cucumis sativus and Nicotiana occidentalisELISA or PCR AND herbaceous indicator Chenopodium quinoaWoody indicators
Bacillus mesentericus vulgatus Pseudomonas amygdali Pseudomonas syringae pv. cerasicola Spiroplasma citri Xylella fastidiosa Virus American plum line pattern virus Apple stem grooving virus [Prunus-infecting strain]	Test 2 (applies to plants from cuttings or tissue culture): leaf material samples for testing to be collected from actively growing plants.All cuttings must be dipped in 1% sodium hypochlorite for 2 minutes upon arrival in the post entry quarantine facility.Growing season inspection in PEQ for disease symptom expression.Growing season inspection in PEQ for disease symptom expression.AND PCR.ELISA or PCR AND herbaceous indicators Chenopodium quinoa, Cucumis sativus and Nicotiana occidentalisELISA or PCR AND herbaceous indicator Chenopodium quinoaWoody indicatorsWoody indicators
Bacillus mesentericus vulgatus Pseudomonas amygdali Pseudomonas syringae pv. cerasicola Spiroplasma citri Xylella fastidiosa Virus American plum line pattern virus Apple stem grooving virus [Prunus-infecting strain] Apricot deformation mosaic virus Apricot latent virus	Test 2 (applies to plants from cuttings or tissue culture): leaf material samples for testing to be collected from actively growing plants.All cuttings must be dipped in 1% sodium hypochlorite for 2 minutes upon arrival in the post entry quarantine facility.Growing season inspection in PEQ for disease symptom expression.Growing season inspection in PEQ for disease symptom expression.AND PCR.ELISA or PCR AND herbaceous indicators Chenopodium quinoa, Cucumis sativus and Nicotiana occidentalisELISA or PCR AND herbaceous indicator Chenopodium quinoaWoody indicatorsWoody indicatorsWoody indicator (Prunus persica cv. GF305) or herbaceous indicator (Nicotiana occidentalis)
Bacillus mesentericus vulgatus Pseudomonas amygdali Pseudomonas syringae pv. cerasicola Spiroplasma citri Xylella fastidiosa Virus American plum line pattern virus Apple stem grooving virus [Prunus-infecting strain] Apricot deformation mosaic virus	Test 2 (applies to plants from cuttings or tissue culture): leaf material samples for testing to be collected from actively growing plants.All cuttings must be dipped in 1% sodium hypochlorite for 2 minutes upon arrival in the post entry quarantine facility.Growing season inspection in PEQ for disease symptom expression.Growing season inspection in PEQ for disease symptom expression.Woody indicator (Prunus avium av
Bacillus mesentericus vulgatusPseudomonas amygdaliPseudomonas syringaepv. cerasicolaSpiroplasma citriXylella fastidiosaVirusAmerican plum line pattern virusApple stem grooving virus[Prunus-infecting strain]Apricot deformation mosaic virusApricot latent virusCarnation Italian ringspot virus	Test 2 (applies to plants from cuttings or tissue culture): leaf material samples for testing to be collected from actively growing plants.All cuttings must be dipped in 1% sodium hypochlorite for 2 minutes upon arrival in the post entry quarantine facility.Growing season inspection in PEQ for disease symptom expression.Growing season inspection in PEQ for disease symptom expression.Moning season inspection in PEQ for disease symptom expression.Growing season inspection in PEQ for disease symptom expression.AND PCR.ELISA or PCR AND herbaceous indicators Chenopodium quinoa, Cucumis sativus and Nicotiana occidentalisELISA or PCR AND herbaceous indicator Chenopodium quinoaWoody indicatorsWoody indicatorsWoody indicator (Prunus persica cv. GF305) or herbaceous indicator (Nicotiana occidentalis)Woody indicator (Prunus avium cvs. Bing and Sam) or herbaceous indicator (Chenopodium quinoa)
Bacillus mesentericus vulgatus Pseudomonas amygdali Pseudomonas syringae pv. cerasicola Spiroplasma citri Xylella fastidiosa Virus American plum line pattern virus Apple stem grooving virus [Prunus-infecting strain] Apricot deformation mosaic virus Apricot latent virus	Test 2 (applies to plants from cuttings or tissue culture): leaf material samples for testing to be collected from actively growing plants.All cuttings must be dipped in 1% sodium hypochlorite for 2 minutes upon arrival in the post entry quarantine facility.Growing season inspection in PEQ for disease symptom expression.Growing season inspection in PEQ for disease symptom expression.Mony PCR.ELISA or PCR AND herbaceous indicators Chenopodium quinoa, Cucumis sativus and Nicotiana occidentalisELISA or PCR AND herbaceous indicator Chenopodium quinoaWoody indicatorsWoody indicator (Prunus persica cv. GF305) or herbaceous indicator (Nicotiana occidentalis)Woody indicator (Prunus avium cvs. Bing and Sam) or herbaceous indicator (Chenopodium quinoa)Woody indicator (Prunus avium cv. Bing) or herbaceous indicator
Bacillus mesentericus vulgatus Pseudomonas amygdali Pseudomonas syringae pv. cerasicola Spiroplasma citri Xylella fastidiosa Virus American plum line pattern virus Apple stem grooving virus [Prunus-infecting strain] Apricot deformation mosaic virus Apricot latent virus Carnation Italian ringspot virus Cherry Hungarian rasp leaf virus	Test 2 (applies to plants from cuttings or tissue culture): leaf material samples for testing to be collected from actively growing plants.All cuttings must be dipped in 1% sodium hypochlorite for 2 minutes upon arrival in the post entry quarantine facility.Growing season inspection in PEQ for disease symptom expression.Growing season inspection in PEQ for disease symptom expression.AND plating on King's B medium.Growing season inspection in PEQ for disease symptom expression.Growing season inspection in PEQ for disease symptom expression.Moving season inspection in PEQ for disease symptom expression.Growing season inspection in PEQ for disease symptom expression.Growing season inspection in PEQ for disease symptom expression.Moving season inspection in PEQ for disease symptom expression.Moving Season inspection in PEQ for disease symptom expression.Growing season inspection in p
Bacillus mesentericus vulgatusPseudomonas amygdaliPseudomonas syringaepv. cerasicolaSpiroplasma citriXylella fastidiosaVirusAmerican plum line pattern virusApple stem grooving virus[Prunus-infecting strain]Apricot deformation mosaic virusApricot latent virusCarnation Italian ringspot virus	Test 2 (applies to plants from cuttings or tissue culture): leaf material samples for testing to be collected from actively growing plants.All cuttings must be dipped in 1% sodium hypochlorite for 2 minutes upon arrival in the post entry quarantine facility.Growing season inspection in PEQ for disease symptom expression.Growing season inspection in PEQ for disease symptom expression.Mony PCR.ELISA or PCR AND herbaceous indicators Chenopodium quinoa, Cucumis sativus and Nicotiana occidentalisELISA or PCR AND herbaceous indicator Chenopodium quinoaWoody indicatorsWoody indicator (Prunus persica cv. GF305) or herbaceous indicator (Nicotiana occidentalis)Woody indicator (Prunus avium cvs. Bing and Sam) or herbaceous indicator (Chenopodium quinoa)Woody indicator (Prunus avium cv. Bing) or herbaceous indicator

virus	
Cherry mottle leaf virus	Woody indicators AND ELISA or PCR AND herbaceous indicator
	Chenopodium quinoa
Cherry rasp leaf virus [strains not	Woody indicators AND herbaceous indicators Chenopodium quinoa,
in New Zealand]	Cucumis sativus and Nicotiana benthamiana
Cherry rosette disease associated	Woody indicators
virus	
Cherry rough fruit virus	Woody indicator (Prunus avium cv. Bing)
Cherry rusty mottle virus	Woody indicators
Cherry twisted leaf virus	Woody indicators AND herbaceous indicator Nicotiana occidentalis
Little cherry virus 2	Woody indicators
Myrobalan latent ringspot virus	Woody indicators AND herbaceous indicators Chenopodium quinoa,
	Cucumis sativus and Nicotiana benthamiana
Peach enation virus	Woody indicators AND herbaceous indicator Chenopodium quinoa
Peach mosaic virus	Woody indicators AND herbaceous indicator Chenopodium quinoa
Peach rosette mosaic virus	Woody indicators AND ELISA or PCR AND herbaceous indicators
	Chenopodium quinoa, Cucumis sativus and Nicotiana benthamiana
Peach yellow leaf virus	Woody indicator (Prunus persica cv. GF305).
Petunia asteroid mosaic virus	Woody indicators
Plum bark necrosis stem pitting-	Woody indicators
associated virus	
Plum pox virus	Woody indicators AND ELISA or PCR (two sets) AND herbaceous
	indicator Nicotiana benthamiana
Prunus virus S	Woody indicator (Prunus persica cv. GF305) or herbaceous indicator
	(Chenopodium quinoa)
Raspberry ringspot virus	Woody indicators AND herbaceous indicators Chenopodium quinoa,
	Cucumis sativus and Nicotiana benthamiana
Sowbane mosaic virus	Herbaceous indicator Chenopodium quinoa
Stocky prune virus	Woody indicator (Prunus persica cv. GF305)
Tomato bushy stunt virus	ELISA or PCR AND herbaceous indicators Chenopodium quinoa,
	Cucumis sativus and Nicotiana benthamiana
Tomato ringspot virus	Woody indicators AND ELISA or PCR AND herbaceous indicators
	Chenopodium quinoa, Cucumis sativus and Nicotiana benthamiana
Viroid	
Hop stunt viroid	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. 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.
- 3. Woody indexing:

Woody indicator	Prunus armeniaca	Prunus avium & Prunus cerasus	Prunus domestica & Prunus salicina	Prunus dulcis	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.

- 4. Molecular tests for viroids. Tests are to be carried out on dormant, grafted cuttings during the winter after importation.
- 5. 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.
- 6. 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.
- 7. 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.
- 8. 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.
- 9. 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 *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 PlantsPEQ: Level 3BMinimum 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

- a. Conditions for *Xylella fastidiosa* on tissue culture (section 2.2.2.5)
   Guidance for importers: There will be a minimum quarantine period of <u>6 months in a Level 2 PEQ</u> greenhouse, for tissue cultures from countries <u>not</u> recognised by MPI as free from *Xylella fastidiosa*.
- b. Subject to examination at a MPI-registered laboratory at the importers expense, prior to release to the importer.

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 3B 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)
- c. Conditions for *Xylella fastidiosa* (section 2.2.1.12)
   Guidance for importers: The minimum quarantine period will be <u>6 months</u> for nursery stock sourced from countries <u>not</u> recognised by MPI as free from *Xylella fastidiosa*

## **B.** For Tissue Cultures

- a. Conditions for *Xylella fastidiosa* on tissue culture (section 2.2.2.5)
   Guidance for importers: There will be a minimum quarantine period of <u>6 months in a Level 2 PEQ</u> greenhouse, for tissue cultures from countries <u>not</u> recognised by MPI as free from *Xylella fastidiosa*.
- b. 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; 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* (section 2.2.1.12)

## **B.** For Dormant Bulbs from Australia and South Africa:

OPTION 1: No import permit is required. PEQ: None

- a. Conditions for *Xylella fastidiosa* (section 2.2.1.12)
   Note: Only nursery stock sourced from a country recognised by MPI as free from *Xylella fastidiosa* can be imported under this option.
- 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* (section 2.2.1.12)
 Note: Only nursery stock sourced from a country recognised by MPI as free from *Xylella fastidiosa* can be imported under this option

**C. For Dormant Bulbs from the USA: PEQ:** Level 2 **Minimum Period:** 3 months

- a. Conditions for *Xylella fastidiosa* (section 2.2.1.12)
   Guidance for importers: The minimum quarantine period will be <u>6 months</u> for nursery stock sourced from countries <u>not</u> recognised by MPI as free from *Xylella fastidiosa*
- b. Conditions for virus diseases: 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."

c. Conditions for Phymatotrichopsis omnivora:

## **OPTION 1**

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

## **OPTION 2**

i) Additional declaration: "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.

## **D.** For Dormant Bulbs from all other Countries:

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

- a. Conditions for *Xylella fastidiosa* (section 2.2.1.12)
   Note: Only nursery stock sourced from a country recognised by MPI as free from *Xylella fastidiosa* can be imported under this option.
- b. Conditions for *Phymatotrichopsis omnivora*: Additional declaration: "The dormant bulbs have been sourced from a "Pest free area", free from *Phymatotrichopsis omnivora*"
- c. 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

 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* (section 2.2.1.12)
   Guidance for importers: The minimum quarantine period will be <u>6 months</u> for nursery stock sourced from countries <u>not</u> recognised by MPI as free from *Xylella fastidiosa*
- b. Conditions for *Phymatotrichopsis omnivora*:
  - i) Additional declaration: "The dormant bulbs have been sourced from a "Pest free area", 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.

- c. 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

 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".

## **E. For Tissue Cultures:**

- a. Conditions for *Xylella fastidiosa* on tissue culture (section 2.2.2.5)
   Guidance for importers: There will be a minimum quarantine period of <u>6 months in a Level 2 PEQ</u> greenhouse, for tissue cultures from countries <u>not</u> recognised by MPI as free from *Xylella fastidiosa*.
- b. 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 *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*; *Phellinus noxius; Pytophthora ramorum*; 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 Phytophthora ramorum (section 2.2.1.11)
- b. Conditions for *Phellinus noxius* (section 2.2.1.13)

Note: Only applies to the following species: Rhododendron xobtusum

- c. Measures for Microsphaera spp. and rust diseases:
  - i. Additional declaration:

"*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) \_". **Note**: Applies to the following rust diseases: *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

ii. All visible flower buds are to be removed prior to export;

and

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

- a. Conditions for Phytophthora ramorum (section 2.2.1.11)
- b. Measures for *Microsphaera* spp. and rust diseases:
  - i. Additional declaration:

"*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) \_". **Note**: Applies to the following rust diseases: *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

ii. All visible flower buds are to be removed prior to export;

## and

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.

## **C. For Tissue Cultures:**

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

Scientific name	Commodity Sub-class	Date Issued
Ribes nigrum	Whole Plants	19 June 1998
Ribes uva-crispa	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.

## 1. Type of Rosa nursery stock approved for entry into New Zealand

Whole plants, cuttings (non-dormant and dormant cuttings), plants in tissue culture

2. Quarantine pest	
Fungi	Phellinus noxius; Pucciniales
Oomycetes	Phytophthora ramorum
Bacteria	Ralstonia pseudosolanacearum, Xylella fastidiosa
Viruses	Blackberry chlorotic ringspot virus; Raspberry ringspot virus
	(strains not in New Zealand); Rose rosette virus;
Phytoplasmas	'Candidatus Phytoplasma asteris'; 'Candidatus Phytoplasma
	aurantifolia'; 'Candidatus Phytoplasma mali'; 'Candidatus
	Phytoplasma prunorum'; 'Candidatus Phytoplasma rubi'

## 2. Quarantine pests

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

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 *Ralstonia pseudosolanacearum* One of the following Additional Declarations must be endorsed on the phytosanitary certificate:
  - i) 'The (insert plant species) plants were sourced from a pest free area, free from *Ralstonia pseudosolanacearum*)'

OR

- ii) 'The (insert plant species) plants have been sourced from a 'pest free place of production', where parent plants were tested according to an NPPO approved methodology and found free from *Ralstonia pseudosolanacearum*'.
- b. Conditions for *Xylella fastidiosa* (section 2.2.1.12)
- c. Conditions for Phellinus noxius (section 2.2.1.13)
- d. Conditions for viruses:
  - i)Additional declaration: "[*Virus name*] is absent/not known to occur in \_\_ [name of country] \_\_"

OR

- ii) Pre-determined testing in PEQ; refer to "Inspection, Testing and Treatment Requirements for *Rosa*"
- e. Conditions for phytoplasmas: Pre-determined testing in PEQ; refer to "Inspection, Testing and Treatment Requirements for *Rosa*"
- f. Conditions for Pucciniales:

i) Additional declaration: "The plants have been dipped in propiconazole at the rate of 5g a.i. per 10 litres of water"

OR

ii) For countries where propiconazole is <u>not</u> approved; additional declaration: "The plants have been [dipped/sprayed until dripping] in [fungicide active ingredient]; a broad range systemic fungicide suitable for treating rust fungi from the Pucciniales order at the rate of [specify rate] at least 48 hours prior to shipment"

OR

- iii)With prior arrangement with MPI, the plants may be dipped on arrival in New Zealand in propiconazole (5g a.i. per 10 litres of water); refer to section 2.3.2 "Treatment and Testing of the Consignment".
- g. Conditions for *Phytophthora ramorum* (section 2.2.1.11) Note: Only applies to the following species and cultivars: *Rosa gymnocarpa, Rosa rugose, Rosa sempervirens, Rosa* cultivar Pink Meidiland, *Rosa* cultivar Pink Sevillana, *Rosa* cultivar Royal Bonica

## **B.** For Non-dormant Cuttings:

**PEQ**: Level 2

## Minimum Period: 6 months

- a. Conditions for *Ralstonia pseudosolanacearum* One of the following Additional Declarations must be endorsed on the phytosanitary certificate:
  - i) 'The (insert plant species) plants were sourced from a pest free area, free from *Ralstonia pseudosolanacearum*)'

OR

- ii) 'The (insert plant species) plants have been sourced from a 'pest free place of production', where parent plants were tested according to an NPPO approved methodology and found free from *Ralstonia pseudosolanacearum*'.
- b. Conditions for Xylella fastidiosa (section 2.2.1.12)
- c. Conditions for viruses:
  - i) Additional declaration: "[*Virus name*] is absent/not known to occur in \_\_ [name of country] \_\_"

OR

- ii) Pre-determined testing in PEQ; refer to "Inspection, Testing and Treatment Requirements for *Rosa*"
- i. Conditions for phytoplasmas: Pre-determined testing in PEQ; refer to "Inspection, Testing and Treatment Requirements for *Rosa*"
- ii. Conditions for Pucciniales:
  - i) Additional declaration: "The plants have been dipped in propiconazole at the rate of 5g a.i. per 10 litres of water"

OR

ii) For countries where propiconazole is <u>not</u> approved; additional declaration: "The plants have been [dipped/sprayed until dripping] in [fungicide active ingredient]; a broad range systemic fungicide suitable for treating rust fungi from the Pucciniales order at the rate of [specify rate] at least 48 hours prior to shipment"

OR

- iii)With prior arrangement with MPI, the plants may be dipped on arrival in New Zealand in propiconazole (5g a.i. per 10 litres of water); refer to section 2.3.2 "Treatment and Testing of the Consignment".
- iii. Conditions for *Phytophthora ramorum* (section 2.2.1.11) Note: Only applies to the following species and cultivars: *Rosa gymnocarpa, Rosa rugose, Rosa*

## **C. For Dormant Cuttings:**

## PEQ: Level 2

## Minimum Period: 6 months

- a. Conditions for *Ralstonia pseudosolanacearum* One of the following Additional Declarations must be endorsed on the phytosanitary certificate:
  - i) 'The (insert plant species) plants were sourced from a pest free area, free from *Ralstonia pseudosolanacearum*)'

## OR

- ii) 'The (insert plant species) plants have been sourced from a 'pest free place of production', where parent plants were tested according to an NPPO approved methodology and found free from *Ralstonia pseudosolanacearum*'.
- b. Conditions for *Xylella fastidiosa* (section 2.2.1.12)
- c. Conditions for viruses:
  - i) Additional declaration: "[*Virus name*] is absent/not known to occur in \_\_ [name of country] \_\_"

OR

- ii) Pre-determined testing in PEQ; refer to "Inspection, Testing and Treatment Requirements for *Rosa*"
- d. Conditions for phytoplasmas: Pre-determined testing in PEQ; refer to "Inspection, Testing and Treatment Requirements for *Rosa*"
- e. Conditions for *Phytophthora ramorum* (section 2.2.1.11) **Note:** Only applies to the following species and cultivars: *Rosa gymnocarpa, Rosa rugose, Rosa sempervirens, Rosa* cultivar Pink Meidiland, *Rosa* cultivar Pink Sevillana, *Rosa* cultivar Royal Bonica

## **D.** For Tissue Cultures:

## PEQ: Level 2

## Minimum Period: 6 months

- a. Conditions for *Ralstonia pseudosolanacearum* One of the following Additional Declarations must be endorsed on the phytosanitary certificate:
  - i) 'The (insert plant species) plants were sourced from a pest free area, free from *Ralstonia pseudosolanacearum*)'

OR

- ii) 'The (insert plant species) plants have been sourced from a 'pest free place of production', where parent plants were tested according to an NPPO approved methodology and found free from *Ralstonia pseudosolanacearum*'.
- b. Conditions for Xylella fastidiosa on tissue culture (section 2.2.2.5)
- c. Conditions for viruses:
  - i) Additional declaration: "[*Virus name*] is absent/not known to occur in \_\_ [name of country] \_\_"

OR

ii) Pre-determined testing in PEQ; refer to "Inspection, Testing and Treatment Requirements for *Rosa*"

# E. For Whole Plants, Cuttings or Tissue cultures imported into a level 3A PEQ facility PEQ: Level 3A

## Minimum Period: 6 months

a. Conditions for Ralstonia pseduosolanacearum

Pre-determined testing in PEQ; refer to "Inspection, Testing and Treatment Requirements for *Rosa*"

ORGANISM	MPI ACCEPTABLE METHODS	Comments
Insects	Visual inspection AND approved	Applies to whole plants and
	insecticide treatments as described in	cuttings only
	section 2.2.1.6 of the Basic conditions	
Mites	Visual inspection AND approved	Applies to whole plants and
	miticide treatments as described in the	cuttings only
	section 2.2.1.6 of the Basic conditions	
Fungus	· ·	
Phellinus noxius	Refer to section 2.2.1.13 "Measures for	Applies to whole plants only
	Phellinus noxius"	
Pucciniales	Treatment; refer to part A and B of the	Applies to whole plants and
	Rosa schedule	non-dormant cuttings only
Bacterium		
Ralstonia	Growing season inspection in PEQ for	Applies to Rosa whole plants,
pseudosolanacearum	symptom expression AND plating on	cuttings, and tissue culture
p se une so tanta ce a tant	selective media OR PCR	imported into a level 3A PEQ
		facility
Xylella fastidiosa	Refer to section 2.2.1.12 "Measures for	Applies to whole plants and
	Xylella fastidiosa"	cuttings only. Testing
		requirements for <i>Xylella</i>
		fastidiosa are identified in
		section 2.2.1.12.
	Refer to section 2.2.2.5 "Measures for	Applies to tissue culture only.
	Xylella fastidiosa on tissue culture"	Testing requirements for
	,,,	Xylella fastidiosa are
		identified in section 2.2.2.5.
Virus		I
Blackberry chlorotic	PCR	
<b>DIACKDELLY CHIOTOLIC</b>	FCK	Applies to whole blants.
•	FCK	Applies to whole plants, cuttings, and tissue culture
ringspot virus		cuttings, and tissue culture
ringspot virus Raspberry ringspot	PCR PCR	cuttings, and tissue culture Applies to whole plants,
ringspot virus Raspberry ringspot virus (strains not in		cuttings, and tissue culture
ringspot virus Raspberry ringspot virus (strains not in New Zealand)	PCR	cuttings, and tissue culture Applies to whole plants, cuttings, and tissue culture
ringspot virus Raspberry ringspot virus (strains not in		cuttings, and tissue cultureApplies to whole plants, cuttings, and tissue cultureApplies to whole plants,
ringspot virus Raspberry ringspot virus (strains not in New Zealand)	PCR	cuttings, and tissue culture Applies to whole plants, cuttings, and tissue culture

## Inspection, Testing and Treatment Requirements for Rosa

## Notes:

- 1. The unit for testing is defined in section 2.3.2.1.
- 2. **Sample collection:** 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.
- 3. **Time of testing:** Virus testing must be carried out using the new season's growth in the spring, or spring-like conditions. Bacteria and phytoplasmas testing must be carried out during late summer to early autumn, or during late summer-like conditions.

**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 3B 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 greenhouse facility accredited to Facility Standard: Post Entry Quarantine for Plants (MPI.STD.PEQ).

**Quarantine Period and Inspection, Testing and Treatment Requirements**: The nursery stock will be grown for a minimum period of 6 months (active continuous growth) in postentry 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 3B greenhouse facility accredited to Facility Standard: Post Entry Quarantine for Plants (MPI.STD.PEQ).

**Quarantine Period and Inspection, Testing and Treatment Requirements**: 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 **Buprestidae** Agrilus aurichalceus Agrilus rubicola Agrilus ruficollis Byturidae Byturus ochraceus Byturus rubi Byturus tomentosus Byturus unicolor Byturus urbanus Cerambycidae Coreus marginatus Oberea bimaculata Chrysomelidae Batophila aerata Batophila rubi Brachypnoea exilis grita Nodonota margaretae Curculionidae Anthonomus rubi Anthonomus signatus Merhynchites bicolor Merhynchites wickhami Nemocestes incomptus Otiorhynchus clavipes Otiorhynchus singularis Rhynchaenus fagi Scleropterus verecundus Nitidulidae Meligethes hebes Scarabaeidae Cetonia aurata pisana Cotinis nitida Macrodactylus subspinosus Phyllopertha horticola Popillia japonica Diptera Agromyzidae Agromyza spiraeae Anthomviidae Pegomya rubivora Cecidomyiidae Contarinia agrimoniae Contarinia rubicola Dasineura plicatrix Lasioptera rubi Resseliella theobaldi Hemiptera Anthocoridae Orius vicinus Miridae Lygocoris pabulinus

strawberry rhynchites

raspberry buprestid raspberry buprestid red-necked cane borer

raspberry beetle eastern raspberry fruitworm raspberry beetle raspberry fruitworm raspberry beetle

longhorn beetle raspberry caneborer

raspberry flea beetle raspberry flea beetle flea beetle leaf beetle

apple blossom weevil blossom weevil rose curculio curculio strawberry root weevil red-legged weevil clay covered weevil strawberry weevil weevil

sap beetle

scarabaeid beetle green June beetle rose chafer garden chafer Japanese beetle

rose leafminer

raspberry cane maggot

midge blackberry flower midge blackberry leaf midge raspberry gall midge raspberry midge

raspberry bug

common green caspid

Lygus lineolaris Macrolophus rubi Psallus variabilis Pentatomidae Dolycoris baccarum Pentatoma rufipes Homoptera Aetalionidae Aetalion reticulatum Aphididae Amphorophora agathonica Amphorophora idaei Amphorophora rubitoxica Aphis rubicola [vect.] Aphis ruborum Macrosiphum funestum Matsumuraja hirakurensis Cicadellidae Dikrella californica Dikrella cruentata Edwardsiana rosae Erythroneura rubiphylla Macropsis fulcatus Macropsis fuscula Metascarta impressifrons Typhlocyba spp. lssidae Mycterodus serbicus Psyllidae Trioza tripunctata Trioza trisignata **Hymenoptera** Cephidae Hartigia albomaculata Cynipidae Diastrophus spp. Pamphilidae Pamphilius sitkensis Pergidae Philomastix macleaii Tenthredinidae Allantus cinctus Emphytus calceatus Empria tridens Metallus pumilus Metallus rohweri Metallus rubi Monophadnoides geniculatus Perineura rubi Sterictiphora furcata Lepidoptera Geometridae Itame wauaria Operophtera bruceata Operophtera brumata Hepialidae Hepialus humuli Incurvariidae Lampronia rubiella Lymantriidae Euproctis chrysorrhoea Lymantria dispar

tarnished plant bug mirid mirid

stink bug forest bug

#### -

strawberry aphid large raspberry aphid aphid raspberry aphid permanent blackberry aphid rose aphid raspberry aphid

blueberry leafhopper leafhopper leafhopper leafhopper boysenberry leafhopper leafhopper rubus leafhoppers

plant bug

blackberry psyllid psyllid

sawfly borer

stem gall cynipids

sawfly

bramble sawfly

banded rose sawfly sawfly raspberry sawfly raspberry leaf-mining sawfly raspberry leafmining sawflies blackberry leafminer raspberry sawfly sawfly sawfly

v-moth Bruce spanworm European winter moth

ghost swift moth

raspberry bud moth

brown-tail moth Asian gypsy moth

Orgyia antiqua Megalopygidae Megalopyge lanata Nepticulidae Stigmella aurella Stigmella splendidissimella Noctuidae Acronicta psi Agrotis segetum Cosmia trapezina Eudocima tyrannus Graphiphora augur Melanchra persicariae Oraesia emarginata Papaipema nebris Peridroma saucia Spirama retorta Xestia c-nigrum Notodontidae Phalera bucephala Saturniidae Saturnia pavonia Sesiidae Pennisetia hylaeiformis Pennisetia marginata Synanthedon bibionipennis Tortricidae Acleris comariana Acleris laterana Archips oporanus Argyrotaenia citrana Choristoneura rosaceana Cnephasia longana Epiblema uddmanniana Olethreutes concinnana Olethreutes furfuranum Pandemis cerasana Spilonota ocellana Orthoptera Gryllidae Oecanthus nigricornis Oecanthus pellucens Phasmida Phasmatidae Carausius morosus Thysanoptera Thripidae Thrips flavus Mites Arachnida Acarina **Eriophvidae** Cenopalpus pseudospinosus Epitrimerus gibbosus Eriophyes rubi Phyllocoptes gibbosus Phyllocoptes gracilis Phyllocoptes rubi Eupodidae Neotetranychus rubi Tetranychidae

rusty tussock moth

grey dagger moth turnip moth dun-bar moth Akebia leaf-like moth double dart moth dot moth fruit-piercing moth stalk borer variegated cutworm fruit sucking moth spotted cutworm buff-tip moth leafroller

silk moth

raspberry crownborer raspberry crownborer strawberry crown moth

broad barred button moth fruit tree tortix orange tortix obliquebanded leafroller omnivorous leaftier bramble shoot borer leafroller leafroller leafroller eye-spotted bud moth

blackhorned tree cricket blackhorned tree cricket

wingless stick insect

flower thrips

rust mite eriophyid mite eriophyid mite eriophyid mite raspberry mite eriophyid mite

raspberry mite

Nematodes	
Adenophorea	
Dorylaimida	
Longidoridae	
Xiphinema bakeri	dagger nematode
Xiphinema barense	dagger nematode
Secernentea	
Tylenchida	
Criconematidae	
Criconemella axestis	-
Criconemella curvata	ring nematode
Criconemella denoudeni	-
Criconemella ornata	ring nematode
Criconemella sphaerocephala	ring nematode
Criconemella xenoplax	ring nematode
Dolichodoridae	
Tylenchorhynchus claytoni	tobacco stunt nematode
Hoplolaimidae	
Helicotylenchus platyurus	-
Hoplolaimus magnistylus	-
Scutellonema bradys	yam nematode
Pratylenchidae	
Hirschmanniella oryzae	rice root nematode
Fungi	
Ascomycota: Ascomycetes	
Diaporthales	
Valsaceae	
Gnomonia rostellata	-
Gnomonia rubi (anamorph Gloeosporium sp.)	cane canker, dieback
Gnomonia setacea	cane canker, dieback
Dothideales	
Leptosphaeriaceae	11.1.
Leptosphaeria thomasiana	cane blight
Melanconidaceae	
Sydowiella depressula	-
Mycosphaerellaceae	1
Mycosphaerella confusa (anamorph Pseudocercospora rubi)	cercospora leaf spot
Mycosphaerella ligea Mycosphaerella m bi (managen h Santania m bi)	cane & leaf spot
Mycosphaerella rubi (anamorph Septoria rubi)	cane & leaf spot
Sphaerulina rubi (anamorph Cylindrosporium rubi) Helotiales	-
Dermateaceae	
	anna spot
Pyrenopeziza rubi Sclerotiniaceae	cane spot
Monilinia fructigena (anamorph Monilia fructigena)	brown rot
Meliolales	brown rot
Meliolaceae	
Appendiculella calstroma	black mildew
Unknown Ascomycetes	black mildew
-	
- Hormotheca rubicola	-
Basidiomycota: Basidiomycetes	
Agaricales	
Tricholomataceae	
Armillaria gallica	armillaria root rot
Armillaria mellea (anamorph Rhizomorpha subcorticalis)	shoestring root rot
Armillaria ostoyae	armillaria root rot
Russulales	
Lachnocladiaceae	

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

	Cherry rasp leaf virus	-
	Hawaiian rubus leaf curl virus	-
	Raspberry latent virus	
	Raspberry leaf curl virus	-
	Raspberry ringspot virus	-
	Rubus Chinese seedborne virus	-
	Rubus chlorotic mottle virus	-
	Rubus yellow net virus	-
	Thimbleberry ringspot virus	-
	Tobacco necrosis virus [strains not in New Zealand]	-
	Tomato ringspot virus	-
	Wineberry latent virus	-
Phytoplasma - -	15	
-	Black raspberry witches'-broom phytoplasma Rubus stunt phytoplasma	-
Disease of ur	ıknown 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 <u>Biosecurity</u> <u>Organisms Register for Imported Commodities</u> to determine the regulatory status.

-

-

-

### Inspection, Testing and Treatment Requirements for Rubus

ORGANISM TYPES	MPI-ACCEPTABLE METHODS
Insects	Visual inspection <b>AND</b> approved insecticide treatments as described in section 2.2.1.6 of the Basic conditions [cuttings only]
Mites	Visual inspection <b>AND</b> approved miticide treatments as described in the <u>section</u> 2.2.1.6 of the Basic conditions [cuttings only] <b>or</b> binocular microscope inspection in PEQ [plants in tissue culture only]
Fungi	All cuttings must be dipped in 1% sodium hypochlorite for 2 minutes upon arrival in the post entry quarantine facility. Growing season inspection in PEQ for symptom expression
Chromista	Growing season inspection in PEQ for symptom expression
Bacteria	All cuttings must be dipped in 1% sodium hypochlorite for 2 minutes upon arrival in the post entry quarantine facility.
Erwinia amylovora f.sp. rubi	Growing season inspection for symptom expression AND PCR
Agrobacterium rubi	Growing season inspection for symptom expression
Xylella fastidiosa	Growing season inspection for symptom expression AND PCR
Viruses	
Black raspberry necrosis virus [strains not in New Zealand]	Country freedom <b>OR</b> Graft indexing using <i>Rubus occidentalis</i> <b>AND</b> PCR
Blackberry calico virus	Country freedom <b>OR</b> Herbaceous indexing ( <i>Chenopodium quinoa</i> )
Blackberry chlorotic ringspot virus	Country freedom <b>OR</b> Herbaceous indexing ( <i>Chenopodium quinoa</i> ) <b>AND</b> PCR
Blackberry virus Y	Country freedom <b>OR</b> RT-PCR using BVY-specific primers
Blackberry yellow vein associated virus	Country freedom <b>OR</b> PCR
Bramble yellow mosaic virus	Country freedom <b>OR</b> Herbaceous indexing ( <i>Chenopodium quinoa</i> )
Cherry rasp leaf virus	Country freedom <b>OR</b> Herbaceous indexing ( <i>Chenopodium quinoa, Cucumis sativus,</i> and <i>Nicotiana clevelandii</i> ) <b>AND</b> ELISA or PCR
Hawaiian rubus leaf curl virus	Country freedom <b>OR</b> Growing season inspection for symptom expression
Raspberry latent virus	Country freedom <b>OR</b> PCR
Raspberry leaf curl virus	Country freedom <b>OR</b> Graft indexing using <i>Rubus occidentalis</i>
Raspberry ringspot virus	Country freedom <b>OR</b> Herbaceous indexing ( <i>Chenopodium quinoa, Cucumis sativus,</i> and <i>Nicotiana clevelandii</i> ) <b>AND</b> ELISA or PCR
Rubus Chinese seedborne virus	Country freedom <b>OR</b> Herbaceous indexing ( <i>Chenopodium quinoa, Cucumis sativus</i> , and <i>Nicotiana clevelandii</i> )
Rubus chlorotic mottle virus	Country freedom <b>OR</b> Herbaceous indexing ( <i>Chenopodium quinoa</i> )
Rubus yellow net virus	Country freedom <b>OR</b> Graft indexing using <i>Rubus occidentalis</i> <b>AND</b> PCR
Thimbleberry ringspot virus	Country freedom <b>OR</b> Graft indexing using <i>Rubus occidentalis</i>
Tobacco necrosis virus [strains not in New Zealand]	Country freedom <b>OR</b> Herbaceous indexing ( <i>Chenopodium quinoa, Cucumis sativus</i> and <i>Nicotiana clevelandii</i> )

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

#### Notes:

- 1. **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.
- **2.** The **unit for testing** is defined in section 2.3.2.1.
- **3. 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.
- 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. 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*.
- 8. 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., Phellinus noxius; Pytophthora ramorum; Xylella fastidiosa

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

#### A. For Whole Plants: PEQ: Level 3B Minimum Period: 3 months

- a. Conditions for Phytophthora ramorum (section 2.2.1.11)
- b. Conditions for *Xylella fastidiosa* (section 2.2.1.12)
   Guidance for importers: The minimum quarantine period will be <u>6 months</u> for nursery stock sourced from countries <u>not</u> recognised by MPI as free from *Xylella fastidiosa*
- c. Conditions for *Phellinus noxius* (section 2.2.1.13) **Note**: Only applies to the following species: *Salix babylonica*

#### **B.** For Tissue Cultures:

- a. Conditions for *Xylella fastidiosa* on tissue culture (section 2.2.2.5)
   Guidance for importers: There will be a minimum quarantine period of <u>6 months in a Level 2 PEQ</u> greenhouse, for tissue cultures from countries <u>not</u> recognised by MPI as free from *Xylella fastidiosa*.
- b. 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) <u>Additional declarations to the phytosanitary certificate</u>

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) <u>Special tissue culture media requirements</u>

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) <u>Additional declarations to the phytosanitary certificate</u> 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 2Minimum Period: 3 months

initiani i criote. 5 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) <u>Special tissue culture medium requirements</u>

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) <u>Post-entry quarantine</u>**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) <u>Special tissue culture medium requirements</u>

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 3B post entry quarantine facility. Refer to *Solanum tuberosum* Inspection and Testing Requirements following the *Solanum tuberosum* pest list.

#### (vi) <u>Post-entry quarantine</u>

#### **PEQ**: Level 3B

**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	totron ushid mits
Tetranychus evansi	tetranychid mite
Fungi	
Chytridiomycota	
Chytridiales	
Synchytriaceae	
Synchytrium endobioticum [official control]	potato wart
Mitosporic Fungi (Coelomycetes)	Potato mare
Sphaeropsidales	
Sphaerioidaceae	
	nhome leaf enot
Phoma andigena var. andina	phoma leaf spot
Mitosporic Fungi	
Unknown Mitosporic Fungi	
Unknown Mitosporic Fungi	
Aecidium cantensis	deforming rust
Oomycota	
Peronosporales	
Peronosporaceae	
Phytophthora capsici	fruit rot of peppers
Phytophthora infestans [A2 mating strain]	late blight
Phytophthora palmivora	black rot
Bacteria	
Corynebacteriaceae	
Clavibacter michiganensis subsp. sepedonicus	potato ring rot
Enterobacteriaceae	potato ing fot
Dickeya chrysanthemi pv. chrysanthemi	bacterial soft rot
(syn. Erwinia chrysanthemi pv. chrysanthemi)	bacterial soft for
Dickeya chrysanthemi pv. parthenii	-
(syn. Erwinia chrysanthemi pv. parthenii)	
Dickeya paradisiaca	-
(syn. Erwinia chrysanthemi pv. paradisiaca)	
'Dickeya solani'	-
Pectobacterium betavasculorum	bacterial sudden yellows death
(syn. Erwinia carotovora subsp. betavasculorum)	
Pectobacterium polaris	
Pseudomonadaceae	
Xylella fastidiosa	
Phyllobacteriaceae	
'Candidatus Liberibacter solanacearum' haplotype B	
Viroids	
Columnea latent viroid*	-
Pepper chat fruit viroid*	
Potato spindle tuber viroid [transient]	-
Tomato chlorotic dwarf viroid*	-
Tomato planta macho viroid*	-
Viruses	
Abutilon mosaic begomovirus*	-
Andean potato latent tymovirus	-
Andean potato mild mosaic tymovirus	-
Andean potato mottle comovirus	-
*	

Arracacha A nepovirus\* Arracacha B nepovirus Asparagus 3 potexvirus\* *Beet curly top curtovirus* Cassava green mottle nepovirus\* Cassia mild mosaic carlavirus\* Cherry leaf roll nepovirus\* Eggplant mosaic tymovirus\* Eggplant mottled dwarf nucleorhabdovirus Henbane mosaic potyvirus\* Melilotus mosaic potyvirus\* Papaya mosaic potexvirus Pelargonium line pattern carmovirus\* Pepino mosaic potexvirus Pepper veinal mottle potyvirus\* Potato 14R tobamovirus Potato black ringspot nepovirus Potato deforming mosaic begomovirus Potato latent carlavirus Potato mop-top furovirus Potato P carlavirus Potato rough dwarf carlavirus Potato virus H carlavirus Potato virus T trichovirus Potato virus U nepovirus Potato virus V potyvirus Potato virus Y potyvirus [strains not in New Zealand] Potato yellow dwarf nucleorhabdovirus Potato yellow mosaic begomovirus Potato yellow vein crinivirus Potato yellowing alfamovirus Solanum apical leaf curling begomovirus Solanum vellows luteovirus Southern potato latent carlavirus Sowbane mosaic sobemovirus Tobacco etch potyvirus\* Tobacco necrosis necrovirus [strains not in New Zealand] Tobacco necrotic dwarf luteovirus\* *Tobacco rattle tobravirus* [strains not in New Zealand] Tobacco streak ilarvirus [strains not in New Zealand] Tobacco stunt varicosavirus\* Tomato bushy stunt tombusvirus\* Tomato infectious chlorosis crinivirus Tomato leaf curl begomovirus - Australia\* Tomato leaf curl begomovirus - New Delhi Tomato top necrosis nepovirus\* Tomato yellow leaf curl begomovirus Tomato yellow mosaic begomovirus Tomato yellow vein streak begomovirus\* Wild potato mosaic potyvirus **Phytoplasmas** Columbia basin purple top phytoplasma 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 Solanum tuberosum

ORGANISM TYPES	ACCEPTABLE METHODS (See Note 6 at the end of this table).	Comments
Mites	Binocular microscope inspection.	
Fungi	1 1	
Aecidium cantensis	Growing season inspection in PEQ for	
	symptom expression	
Phoma andigena var. andina	Growing season inspection in PEQ for	
	symptom expression	
Synchytrium endobioticum [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 Myxomycetes in the Kingdom Protozoa.
Oomycete		
Phytophthora capsici	Growing season inspection in PEQ for	
	symptom expression	
Phytophthora infestans (A2	Growing season inspection in PEQ for	
mating strain)	symptom expression	
Phytophthora palmivora	Growing season inspection in PEQ for symptom expression	
Bacteria		
'Candidatus Liberibacter	Growing season inspection in PEQ for	
solanacearum' haplotype B	symptom expression AND PCR	
Clavibacter michiganensis subsp. sepedonicus	Growing season inspection in PEQ for symptom expression <b>AND</b> • Immunofluorescence or	
	<ul> <li>ELISA AND grow plantlets on Murashige and Skoog medium</li> <li>or</li> <li>PCR AND grow plantlets on Murashige and Skoog medium</li> </ul>	
Dickeya chrysanthemi pv.	Growing season inspection in PEQ for	
chrysanthemi	symptom expression <b>AND</b> plating on selective pectate media <b>or</b> PCR	
Dickeya chrysanthemi pv.	Growing season inspection in PEQ for	
parthenii	symptom expression <b>AND</b> plating on selective pectate media <b>or</b> PCR	
Dickeya paradisiaca	Growing season inspection in PEQ for symptom expression <b>AND</b> plating on selective pectate media <b>or</b> PCR	
'Dickeya solani'	Growing season inspection in PEQ for symptom expression <b>AND</b> plating on	
Pectobacterium betavasculorum	selective pectate media or PCR Growing season inspection in PEQ for symptom expression AND plating on selective pectate media or PCR	
Pectobacterium polaris	Growing season inspection in PEQ for symptom expression <b>AND</b> plating on selective pectate media <b>or</b> PCR	
Xylella fastidiosa	Growing season inspection in PEQ for symptom expression <b>AND</b> PCR	
Viroid		

ORGANISM TYPES	ACCEPTABLE METHODS	Comments
	(See Note 6 at the end of this table).	
Potato spindle tuber viroid	PCR using two sets of primers	
[transient]	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	Sap transmitted with difficulty. ELISA must detect the oca strain
Andean potato latent tymovirus	ELISA or PCR AND herbaceous	ELISA musi delect the oca strain
Andean polato latent tymovirus	indicators Nb, No	
Andean potato mild mosaic	ELISA or PCR	
tymovirus		
Andean potato mottle comovirus	ELISA or PCR AND herbaceous	
	indicators Nc, Nd	
Beet curly top curtovirus	ELISA or PCR	
Eggplant mottled dwarf	Herbaceous indicators Nb, Nc, Nd	
nucleorhabdovirus		
Papaya mosaic potexvirus	PCR and Herbaceous indicator Ca	
Pepino mosaic virus	PCR and Herbaceous indicators Nd, No,	
	and Nt	
Potato 14R tobamovirus	Growing season inspection in PEQ for	Not fully characterised.
	symptom expression	
Potato black ringspot nepovirus	ELISA or PCR AND herbaceous	
	indicators Cq, No	
Potato deforming mosaic	PCR or ELISA	
begomovirus Potato latent carlavirus	PCR	
Potato mop-top furovirus	ELISA or PCR AND herbaceous	ELISA can be used to detect the
	indicators Ca, Cq, Nd	virus in indicator plants but may not be reliable for potato in which virus is usually in low concentration or erratically
	2.02	distributed.
Potato P carlavirus	PCR	
Potato rough dwarf carlavirus	PCR	
Potato T trichovirus	ELISA or PCR AND Herbaceous indicators Ca, Cq	
Potato virus H carlavirus	PCR	
Potato virus U nepovirus	Herbaceous indicators Ca, Cq	
Potato virus V potyvirus	ELISA or PCR	
Potato virus Y potyvirus [strains	ELISA or PCR AND herbaceous	
not in NZ] Potato yellow dwarf	indicators Nb, No Herbaceous indicators Nc	
nucleorhabdovirus	Herbaceous indicators inc	
Potato yellow mosaic	Herbaceous indicators Nb, Nt	
begomovirus		
Potato yellow vein crinivirus	PCR or hybridisation	
Potato yellowing alfamovirus	ELISA or PCR	
Solanum apical leaf curling	Growing season inspection in PEQ for	
begomovirus	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	
Tobacco necrosis necrovirus	Herbaceous indicators Ca, Cq, Nc	Tobacco necrosis virus A
[strains not in New Zealand]		Tobacco necrosis virus B

ORGANISM TYPES	ACCEPTABLE METHODS	Comments
	(See Note 6 at the end of this table).	
Tobacco rattle tobravirus [strains not in New Zealand]	PCR AND herbaceous indicators Ca, Nc	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	Potato strain SB10 infects potato naturally.
Tomato infectious chlorosis	PCR	
crinivirus		
Tomato leaf curl begomovirus – New Delhi	Herbaceous indicators Nb	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	
Tomato yellow mosaic begomovirus	PCR or ELISA AND herbaceous indicators Nb, Nt	
Wild potato mosaic potyvirus	Herbaceous indicators Nc, No	
Phytoplasmas		
Columbia basin purple top phytoplasma	Nested or real-time PCR using universal phytoplasma primers	
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	Nested or real-time PCR using universal	
phytoplasma	phytoplasma primers	
Potato purple-top wilt	Nested or real-time PCR using universal	
phytoplasma	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	Nested or real-time PCR using universal	
phytoplasma	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* <u>experimentally</u>. 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*	The standard manual distance of the second distance day
Tomato chlorotic dwarf viroid*	Tests that would detect this viroid are already
	being conducted elsewhere in this schedule e.g.
Transfer along a start of the	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 nepovirus*	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
i oniato ousity stant toniousvii us	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
i omato icar curi degomovirus - Australia	being conducted elsewhere in this schedule e.g.
	the universal PCR or ELISA for begomovirus.
	the universal for of ELISA for Degomovilus.

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. The unit for testing is defined in section 2.3.2.1.
- 2. Plantlets in growth medium must be de-flasked and grown in quarantine for the completion of predetermined testing; however, the 'Inspection and Testing Requirements' may also require the plantlets to be grown on specific medium for bacteria testing. After plantlets are deflasked they must be grown in sterile potting mix. Testing must be carried out on plants while they are still in active growth prior to tuber formation.
- Herbaceous indicator hosts (Cq Chenopodium quinoa, Nd Nicotiana deneyi, No Nicotiana occidentalis P1 and Nt - Nicotiana tabacum (cv White Burley)): at least two plants of each herbaceous indicator species must be used in each test. Herbaceous indicator hosts (Ca - Chenopodium amaranticolour, Nb - Nicotiana benthamiana and Nc - Nicotiana clevelandii: at least four plants of each herbaceous indicator species must be used in each test.
- 4. For herbaceous indexing 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). For the PSTVd PCR young actively growing leaf tissue must be used.
- 5. 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. A suitable positive control must be included.
- 6. 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.
- 7. All PCR, hybridisation 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.
- 8. Inspect *Solanum tuberosum* plants for signs of pest and disease at least once per week. Inspect inoculated herbaceous indicator plants at least twice per week for symptoms of virus infection
- 9. With prior notification, MPI will accept other internationally recognised testing methods.

#### Declaration Form To be completed and signed by the exporter and importer.

As defined by the New Zealand HSNO Act 1996, Genetically modified organism means, unless expressly provided otherwise by regulations, any organism in which any of the genes or any other genetic material (a) have been modified by in vitro techniques; or (b) 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.

Note that under the Hazardous Substances and New Organisms (HSNO) Act 1996. The import and release of any genetically modified crop without approval from the Environmental Protection Authority (EPA) it is unlawful.

I undertake to inform immediately the importer and the Ministry for Primary Industries, MPI, New Zealand of any information that can undermine the accuracy of this declaration.

Note that MPI may request evidence as to how production, handling and transport of the nursery stock is performed in the field, or require and audit as a way to provide quality to the production system.

I,...... (*importer's name and address*)......declare to the best of my knowledge that according to the requirements set out in the Nursery Stock Import Health Standard (MPI Import Health Standard: 155.02.06: Importation of Nursery Stock - <u>http://www.mpi.govt.nz/document-vault/1152</u>), (*species name and lot/line number or unique identifier as stated on all the other import documentation*) was produced neither "from" nor "by" genetically modified crops.

Signed by (*exporter*) and Company Name and details

(print name)

Date

Signed by (importer) and Company Name and details

(print name)

Warning: Any person who knowingly makes a statement of information or a declaration that is false or misleading in a material particular may on summary conviction, be sentenced to a term of imprisonment and/or fined not exceeding \$500,000.00

**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

- a. Conditions for *Xylella fastidiosa* (section 2.2.1.12)
   Guidance for importers: The minimum quarantine period will be <u>6 months</u> for nursery stock sourced from countries <u>not</u> recognised by MPI as free from *Xylella fastidiosa*
- b. Additional declaration: "Aster yellows phytoplasma is not known to occur in \_\_ (the country or state where the plants were grown) \_\_".

#### **B.** For Tissue Cultures:

- a. Conditions for *Xylella fastidiosa* on tissue culture (section 2.2.2.5)
   Guidance for importers: There will be a minimum quarantine period of <u>6 months in a Level 2 PEQ</u> greenhouse, for tissue cultures from countries <u>not</u> recognised by MPI as free from *Xylella fastidiosa*
- b. 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 viruslike 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 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 *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,

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 <u>other than</u> 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) <u>Post-entry quarantine</u>

#### **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) <u>Additional declarations to the phytosanitary certificate</u>

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) <u>Documentation</u>

**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) <u>Phytosanitary requirements</u>

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 3B

**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	onion maggat
Delia antiqua Homontoro	onion maggot
Homoptera	
Aphididae	tulin loof onbid
Rhopalosiphoninus staphyleae tulipaellus	tulip leaf aphid
Orthoptera Comulatalacidas	
Gryllotalpidae	
Gryllotalpa gryllotalpa	mole cricket
Thysanoptera	
Thripidae	• • 1.1 •
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 wakkeri	blackleg
Bacterium	
Corynebacteriaceae	
Curtobacterium flaccumfaciens pv. oortii	yellow pock
	,

#### Virus

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

----

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

#### **GENERAL CONDITIONS:**

#### Approved Countries: All

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

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

# A. For Whole Plants:PEQ: Level 3BMinimum Period: 3 months

- a. Conditions for Ceratocystis fimbriata (section 2.2.1.8)
- b. Conditions for Phytophthora ramorum (section 2.2.1.11)
- c. Conditions for *Xylella fastidiosa* (section 2.2.1.12)
   Guidance for importers: The minimum quarantine period will be <u>6 months</u> for nursery stock sourced from countries <u>not</u> recognised by MPI as free from *Xylella fastidiosa*
- d. Conditions for *Phellinus noxius* (section 2.2.1.13) **Note**: Only applies to the following species: *Ulmus parvifolia*

#### **B. For Tissue Cultures: PEQ**: Level 3B **Minimum Period**: 3 months

a. Conditions for *Xylella fastidiosa* (section 2.2.2.5)
 Guidance for importers: The minimum quarantine period will be <u>6 months</u> for nursery stock sourced from countries <u>not</u> recognised by MPI as free from *Xylella fastidiosa*

**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 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 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 MPI.STD.PEQ: Facilities for Post Entry Quarantine for Plants.

**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 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 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.

AND

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

#### (iii) Additional declarations to the phytosanitary certificate

If satisfied that the preshipment activities have been undertaken, the exporting country NPPO must confirm this by recording the treatments applied in the "Disinfestation and/or Disinfection Treatment" section. No additional declarations are required.

#### (iv) <u>Post-entry quarantine</u>

**PEQ**: All *Vaccinium* cuttings must be imported under permit into post-entry quarantine in a level 3B quarantine facility accredited to standard MPI.STD.PEQ: Facilities for Post Entry Quarantine for Plants.

**Quarantine Period and Inspection, Testing and Treatment Requirements**: The nursery stock will be grown for a minimum period of 16 months 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.

#### 3.3 Vaccinium tissue cultures 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 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

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

#### AND

- [for countries recognised by MPI as free of *Phytophthora ramorum*] have been sourced from a country recognised by MPI as being free from *Phytophthora ramorum*.

**Guidance for importers:** Freedom from *Phytophthora ramorum* is an optional measure that may be applied to tissue cultures that will undergo quarantine in a level 3A quarantine facility. The following countries are recognised by MPI as being free from *Phytophthora ramorum*: Australia, Israel, Japan, and South Africa.

#### (iii) Additional declarations to the phytosanitary certificate

The following additional declaration can be included for countries recognised by MPI as being free from *Phytophthora ramorum*:

"The *Vaccinium* tissue cultures in this consignment have been sourced from a "Pest Free Area" free from *Phytophthora ramorum*".

(iv) Special tissue culture medium requirements

The tissue culture medium must not contain charcoal.

### (v) *Post-entry quarantine*

**PEQ**: All *Vaccinium* tissue cultures must be imported into post entry quarantine in a level 3A or level 3B quarantine facility accredited to standard MPI.STD.PEQ: Facilities for Post Entry Quarantine for Plants.

### Special requirements for plants imported into a level 3A quarantine facility:

- Before plants are deflasked into a level 3A quarantine facility the tissue cultures must be held at a level 3 tissue culture laboratory until the following activities have been completed:
  - Tissue cultures must be held between 17°C and 25°C for a minimum period of four weeks and all plants must be inspected by the MPI inspector for signs or symptoms of *Phytophthora ramorum* prior to deflasking. This inspection will be in addition to growing season inspections which are required in the greenhouse. This is only required for plants which do not have an additional declaration certifying they have been sourced from a country recognised by MPI as being free from *Phytophthora ramorum*.
  - Sub culturing must not occur during this incubation period, however plants may be sub-cultured on arrival in New Zealand, prior to commencement of the four week incubation.
  - Tissue cultures must not be transferred to the level 3A quarantine facility until they have been tested for, and found free from *Monilinia vaccinii-corymbosi*.
- Requirements at the level 3A quarantine facility:
  - All plants must be inspected for signs and symptoms of pests and disease at least twice per week throughout the entire quarantine period (including during dormancy).
  - Plants must be irrigated using a method which prevents water coming into contact with plant foliage (such as drip irrigation). Overhead irrigation must not be used.
  - Contingency plans must be developed to identify actions that will be taken to contain the propagules of any fungal or oomycete disease organisms in the event of disease symptoms becoming evident during the quarantine period. These plans must be recorded in the facility operating manual.

# **Quarantine Period and Inspection, Testing and Treatment Requirements**: The imported tissue culture plants must be deflasked and grown for a minimum period of 9 months in post-entry quarantine. During this time plants 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. This time is the indicative minimum quarantine period 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	1
Ĉecidomyiidae	
Contarinia vaccinii	blueberry tip midge
Tephritidae	
Rhagoletis mendax	blueberry maggot
Hemiptera	<i>, 66</i>
Coreidae	
Veneza phyllopus	leaf-footed bug
Homoptera	
Aphididae	
Illinoia borealis	aphid
Illinoia pepperi	blueberry aphid
Cicadellidae	blueberry apina
Euscelis striatulus	Blunt-nosed leafhopper
Scaphytopius magdalensis	sharpnosed leafhopper
<b>Hymenoptera</b>	sharphosed reamopper
Tenthredinidae	
	contly
Caliroa annulipes	sawfly
Neopareophora litura Printiphora idiata	gooseberry sawfly
Pristiphora idiota	willow redgall sawfly
Pristiphora mollis	-
Lepidoptera Arctiidae	
	fall makersone
Hyphantria cunea	fall webworm
Geometridae	
Itame ribearia	currant spanworm
Noctuidae	· · · · · · · · · · · · · · · · · · ·
Acronicta tritona	acronicta caterpillar
Actebia fennica	black army cutworm
Notodontidae	1
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	leaftier
Cheimophila salicella	European carnation tortrix
Choristoneura hebenstreitella	tortricid
Choristoneura rosaceana	oblique-banded leafroller
Cydia packardi	cherry fruitworm

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

Agaricales	
Tricholomataceae	
Armillaria mellea (anamorph Rhizomorpha subcorticalis)	armillaria root rot
Armillaria ostoyae	armillaria root rot
Exobasidiales	
Exobasidiaceae	
Exobasidium maculosum	
Basidiomycota: Teliomycetes	
Uredinales	
Pucciniastraceae	
Pucciniastrum goeppertianum	rust
Oomycota	
Pythiales	
Pythiaceae	
Phytophthora ramorum	sudden oak death disease
mitosporic fungi (Coelomycetes)	
Sphaeropsidales	
Sphaerioidaceae	leadily lead an et
Dothichiza caroliniana	double leaf spot
Coniothyrium vaccinicola	brand canker
Phoma vaccinii Diagotia ugocinii	stem blight
Piggotia vaccinii Santoria alkomunatata	leaf spot
Septoria albopunctata Septoria vaccinii	septoria spot septoria spot
-	septoria spot
unknown Coelomycetes unknown Coelomycetes	
Gloeosporium minus	leaf spot and stem canker
Leptothyrium conspicuum	fly speck
mitosporic fungi (Hyphomycetes)	ny speek
Hyphomycetales	
Moniliaceae	
Gloeocercospora inconspicua	leaf spot
Ramularia vaccinii	leaf spot
unknown Hyphomycetes	lear spor
unknown Hyphomycetes	
Aureobasidium vaccinii	twig and leaf blight
	8
Bacterium	
Pseudomonadaceae	
Xylella fastidiosa	Pierce's disease
Rhizobiaceae	
Agrobacterium rubi	cane gall
Virus	
Blueberry leaf mottle virus	-
Bluberry 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
Diaporthe vaccinii	Plating of twig or leaf material onto suitable isolation medium
Monilinia vaccinii-corymbosi	Growing season inspection in PEQ for disease symptom expression <b>AND</b> [for tissue cultures which will be deflasked into a level 3A quarantine facility, option 3.3 of the <i>Vaccinium</i> schedule only]; one of the following tests must occur before the tissue cultures are transferred to the quarantine facility: PCR OR plating onto suitable isolation medium.
Oomycota	
Phytophthora ramorum	Growing season inspection in PEQ for disease symptom expression <b>AND</b> [for tissue cultures which were not certified as sourced from a country free from <i>P. ramorum</i> , and which will be deflasked into a level 3A quarantine facility under option 3.3 of the <i>Vaccinium</i> schedule]: Tissue cultures must be held in a level 3 tissue culture facility between 17°C and 25°C for a minimum period of four weeks, and inspected by the MPI inspector before transfer to the greenhouse.
Bacterium	
Agrobacterium rubi	Growing season inspection in PEQ for disease symptom expression
Xylella fastidiosa	Growing season inspection in PEQ for disease symptom expression AND PCR
Virus	
Blueberry leaf mottle virus	Herbaceous indicators Cq and Nc AND ELISA or PCR
Bluberry red ringspot virus (syn. Cranberry ringspot virus)	ELISA or PCR
Blueberry scorch virus	Herbaceous indicator Cq AND ELISA or PCR
Blueberry shock virus	Herbaceous indicators Nc and Nt AND ELISA or PCR
Blueberry shoestring virus	ELISA or PCR
Peach rosette mosaic virus	Herbaceous indicators Cq and Nt AND ELISA or PCR
Tobacco streak virus	Herbaceous indicators Cq and Nt AND ELISA or PCR
[strains not in New Zealand]	
Tomato ringspot virus	Herbaceous indicators Cq and Nt AND ELISA or PCR
Phytoplasmas	
Blueberry stunt phytoplasma	Nested PCR or real time PCR using universal phytoplasma primers
Cranberry false blossom	Nested PCR or real time PCR using universal phytoplasma primers
phytoplasma	
Vaccinium witches' broom	Nested PCR or real time PCR using universal phytoplasma primers
phytoplasma	
Disease of unknown aetiology	
Blue berry fruit drop disease	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: *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.

- 3. Virus testing (herbaceous indexing, 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.
- 4. 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.
- 5. All PCR and ELISA tests must be validated using positive controls prior to use in quarantine testing. Positive and negative controls (including a blank water control for PCR) must be used in all tests. Ideally positive internal controls and a negative plant control should also be used in PCR tests.
- 6. Inspect *Vaccinium* plants for signs of pest and disease at least twice per week during periods of active growth and once per week during dormancy. Note: plants held in a level 3A quarantine facility under option 3.3 of the IHS must be inspected at least twice per week for the entire quarantine period (including during any periods of dormancy).
- 7. 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 *Vaccinium macrocarpon*", and are additional to those specified in sections 1, 2 and 3 of the import health standard.

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

### 2. Pests of Vaccinium macrocarpon

Refer to the pest list.

### 3. Entry conditions for:

# **3.1** *Vaccinium macrocarpon* cuttings and tissue culture from offshore 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) <u>Phytosanitary requirements</u>

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 postentry quarantine in a Level 2 greenhouse facility accredited to Facility Standard: Post Entry Quarantine for Plants (MPI.STD.PEQ).

**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 postentry quarantine in a Level 3B greenhouse facility accredited to Facility Standard: Post Entry Quarantine for Plants (MPI.STD.PEQ).

**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	1 6 11
Archips rosanus	rose leafroller
Argyrotaenia velutinana	red-banded leafroller
Aroga trialbamaculella	leaftier
Choristoneura hebenstreitella	tortricid
Choristoneura rosaceana	oblique-banded leafroller
Dichomeris vacciniella	leaftier
Thysanoptera	
Thripidae	
Frankliniella vaccinii	blueberry thrips
N.C.4.	
Mite	
Arachnida	
Acarina Eriophysidae	
Eriophyidae Acalitus vaccinii	bluch anny bud mite
Acamus vaccinii	blueberry bud mite
Fundado	
Fungus	
Ascomycota	
Diaporthales	
Valsaceae Diaporthe vaccinii (anamorph Phomopsis vaccinii)	twig blight
Dothideales	twig ofigint
Botryosphaeriaceae	
Botryosphaeria vaccinii (anamorph Phyllosticta	
Don yoophacha vacenna (anamorph i nyuosueta	

elongata)	
Erysiphales	
Erysiphaceae	
Microsphaera vaccinii	powdery mildew
Leotiales	
Leotiaceae	
Godronia cassandrae (anamorph Fusicoccum	foliage spot
putrefaciens)	
Godronia cassandrae f. sp. vaccinii	cane canker
Sclerotiniaceae	Europeen brown not
Monilinia fructigena (anamorph Monilia fructigena) Monilinia organizi	European brown rot
Monilinia oxycocci Rhytismatales	-
Rhytismataceae	
Lophodermium hypophyllum	-
Lophodermium maculare	leaf spot
Lophodermium oxycocci	-
Basidiomycota: Basidiomycetes	
Agaricales	
Tricholomataceae	
Armillaria mellea (anamorph Rhizomorpha	armillaria root rot
subcorticalis)	
Basidiomycota: Teliomycetes	
Uredinales	
Pucciniastraceae	
Pucciniastrum goeppertianum	rust
Chytridiomycota	
Chytridiales	
Synchytriaceae	
Synchytrium vaccinii	red leaf gall
Mitosporic fungi (Coelomycetes)	
Sphaeropsidales	
Sphaerioidaceae	
Coniothyrium vaccinicola	brand canker
Phoma vaccinii	stem blight
Septoria vaccinii	septoria spot fruit rot
Strasseria oxycocci unknown Coelomycetes	If ult for
unknown Coelomycetes	
Gloeosporium minus	leaf spot and stem canker
Leptothyrium conspicuum	fly speck
Oomycota	ny speek
Pythiales	
Pythiaceae	
Phytophthora ramorum	Sudden Oak Death disease
Bacterium	
Pseudomonadaceae	
Xylella fastidiosa	
Rhizobiaceae	
Agrobacterium rubi	cane gall
-	
Virus	
Blueberry scorch virus	
Bluberry red ringspot virus (syn. Cranberry ringspot	-
virus) Tabaaaa atuaak wirus [atraina not in Naw Zaaland]	
Tobacco streak virus [strains not in New Zealand]	-
Phytoplasma	
Phytoplasma Cranberry false blossom phytoplasma	_
Cranoen y raise orossoni priytoprasina	=

# 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	
Agrobacterium rubi	Growing season inspection in PEQ for disease symptom expression.
Xylella fastidiosa	Growing season inspection in PEQ for disease symptom expression AND PCR
Virus	
Blueberry scorch virus	Herbaceous indicator Cq AND ELISA or PCR.
Blueberry red ringspot virus (syn. Cranberry ringspot virus)	ELISA or PCR.
<i>Tobacco streak virus</i> [strains not in New Zealand]	Herbaceous indicators Cq and Nt AND ELISA or PCR.
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, 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.
- 4. 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.
- 5. All PCR and ELISA tests must be validated using positive controls prior to use in quarantine testing. Positive and negative controls (including a blank water control for PCR) must be used in all tests. Ideally positive internal controls and a negative plant control should also be used in PCR tests.
- 6. Inspect *Vaccinium macrocarpon* plants for signs of pest and disease at least twice per week during periods of active growth and once per week during dormancy.
- 7. With prior notification, 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**: *Phytophthora tentaculata, Tetranychus kanzawai,* 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

a. Conditions for *Phytophthora tentaculata*<sup>1</sup>

One of the following Additional Declarations must be endorsed on the phytosanitary certificate:

"The [insert species name] plants in this consignment have been sourced from [insert country name], which is free from *Phytophthora tentaculata*".

### OR

"The [insert species name] plants in this consignment were produced in a "pest free area" for *Phytophthora tentaculata*".

### OR

"The [insert species name] plants in this consignment were produced in a "pest free place of production" for *Phytophthora tentaculata*".

- b. Conditions for *Tetranychus kanzawai* Additional declaration: "The plants have been dipped prior to export in dicofol at the rate of 0.7g a.i. per litre of water".
- c. Conditions for Uredinales Additional declaration: "Rust diseases are not known to occur on \_ (the imported genus) \_ in \_ (the country in which the plants were grown) \_".
- d. Conditions for *Xylella fastidiosa* (section 2.2.1.12)
   Guidance for importers: The minimum quarantine period will be <u>6 months</u> for nursery stock sourced from countries <u>not</u> recognised by MPI as free from *Xylella fastidiosa*

### **B.** For Tissue Cultures

 a. Conditions for *Xylella fastidiosa* on tissue culture (see section 2.2.2.5)
 Guidance for importers: There will be a minimum quarantine period of <u>6 months in a Level 2 PEQ</u> greenhouse, for tissue cultures from countries <u>not</u> recognised by MPI as free from *Xylella fastidiosa*.

<sup>1</sup>Implementation of measures:

For consignments with a phytosanitary certificate issued <u>on or after 25 May 2018</u> the requirements for *Phytophthora tentaculata* <u>must</u> be met.

For consignments with a phytosanitary certificate issued no later than <u>24 May 2018</u>, the requirements for *Phytophthora*. *tentaculata* are not mandatory.

**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 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 V*itis*", 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 3B 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) <u>Phytosanitary requirements</u>

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

- sourced from mother plants which are at least 10 year old and have been inspected during the growing season and are free from symptoms of Syrah decline.

### 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 greenhouse facility (or Level 3B greenhouse facility at the direction of the CTO) accredited to Facility Standard: Post Entry Quarantine for Plants (MPI.STD.PEQ)."

**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:

- 4. 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
- 5. 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) <u>Phytosanitary requirements</u>

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 of the phytosanitary certificate and by providing the following additional declarations to the phytosanitary certificate:

"The Vitis cuttings / plants in tissue culture [choose ONE option] have been:

- sourced from mother plants which are at least 10 year old and have been inspected during the growing season and are free from symptoms of Syrah decline.

### (iv) <u>Post-entry quarantine</u>

**PEQ**: All *Vitis* nursery stock must be imported under permit into post-entry quarantine in a Level 3B greenhouse facility accredited to Facility Standard: Post Entry Quarantine for Plants (MPI.STD.PEQ).

**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	
Amphicerus bicaudatus	apple twig borer
Amphicerus bimaculatus	bostrichid beetle
Amphicerus cornutus	-
Apate congener	-
Apate monachus	black borer
Bostrychopsis jesuita	large auger beetle
Dexicrates robustus	-
Melalgus confertus	branch and twig borer
Micrapate scabrata	-
Neoterius mistax	-
Psoa quadrisignata	- ,
Schistocerus bimaculatus	grape cane borer
Scobicia declivis	lead cable borer
Xylopertha retusa	wood boring beetle
Xylopsocus gibbicollis	-
Buprestidae	
Agrilus marginicollis	flatheaded grape borer
Carabidae	
Adoxus obscurus [Animals Biosecurity]	-
Cerambycidae	
Acalolepta vastator	-
Cerasphorus albofasciatus	grape trunk borer
Chrysomelidae	CI 1 (1
Altica chalybaea	grape flea beetle
Altica torquata	grapevine flea beetle
Bromius obscurus	western grape rootworm
Fidia viticida	grape root worm
Glyptoscelis squamulata	grape bud beetle
Haltica spp.	-
Monolepta australis	red-shouldered leaf beetle
Coccinellidae	
Coccinella transversoguttata [Animals Biosecurity]	-
Midas pygmaeus [Animals Biosecurity]	-
Nephus reunioni [Animals Biosecurity]	-
<i>Rhyzobius ruficollis</i> [Animals Biosecurity]	-
Stethorus spp. [Animals Biosecurity]	-
Curculionidae Bustomus setulosus	h
	brown weevil
Craponius inaequalis	grape curculio flower beetle
Dischista cincna Eremnus atratus	black weevil
Eremnus cerealis	
Eremnus cereaus Eremnus setulosus	western province grain worm
Eremnus setutosus Naupactus xanthographus	grey weevil fruit tree weevil
Orthorhinus cylindrirostris Orthorhinus klugi	elephant weevil
Orthorhinus klugi Otiorhynchus cribricollis	immigrant acacia weevil cribrate weevil
Otiorhynchus cribricollis Parnarus spp	apple root weevils
Perperus spp. Platvaspistas alaucus	apple root weevins
Platyaspistes glaucus Platyaspistes vanustus	-
Platyaspistes venustus Rhigopsis effracta	-
Tanyrhynchus carinatus	- bud nibbler
i un yr nynchus cur muns	

Limonius canus	Pacific Coast wireworm
Meloidae	I active Coast wireworm
Mylabris oculata	_
Scarabaeidae	
Athlia rustica	_
Cotalpa ursina	_
Hoplia callipyge	_
Hoplia pubicollis	_
Macrodactylus subspinosus	rose chafer
Pachnoda sinuata	scarab beetle
Popillia japonica	Japanese beetle
Schizonycha sp.	cockchafer
Scolytidae	eoekenaier
	Iananasa hark haatla
Scolytus japonicus	Japanese bark beetle
Xyleborus dispar	ambrosia beetle
Xyleborus semiopacus	black twig borer
Staphylinidae	
Oligota pygmaea [Animals Biosecurity]	-
Tenebrionidae	
Blapstinus sp.	darkling beetle
Coniontis parviceps	-
Metoponium abnorme	-
Diptera	
Cecidomyiidae	
Diadiplosis koebelei	-
Tachinidae	
Ollacheryphe aenea [Animals Biosecurity]	-
Sturmia harrisinae [Animals Biosecurity]	-
Voriella uniseta [Animals Biosecurity]	-
Hemiptera	
Anthocoridae	
Orius sp. [Animals Biosecurity]	-
Coreidae	
Anthocoris sp.	-
Mictis profana	crusader bug
Lygaeidae	C
Nysius raphanus	false chinch bug
Nysius vinitor	Rutherglen bug
Oxycarenus arctatus	coon bug
Miridae	
Creontiades dilutus	green mirid
Pentatomidae	8
Euschistus conspersus	stink bug
Oechalia schellenbergi [Animals Biosecurity]	Schellenberg's soldier bu
Pyrrhocoridae	benenenberg s soluter bu
Dindymus versicolor	harlequin bug
Homoptera	hariequin bug
Aleyrodidae	
Aleurocanthus woglumi	citrus blackfly
Tetraleurodes vittatus	citrus blackity
Trialeurodes vittata	- grana whitefly
	grape whitefly
Aphididae	anonavina anhid
Aphis illinoisensis	grapevine aphid
Aphis medicaginis	-
Asterolecaniidae	1 1 . 1
Asterolecanium pustulans	oleander pit scale
Cerococcidae	·. ·
Asterococcus muratae	pit scale
Cicadellidae	
Acia lineatifrons	leafhopper
Carneocephala fulgida	red-headed sharpshooter

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

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

Coryphodema tristis Zeuzera coffeae Heliozelidae Antispila rivillei Noctuidae Achaea spp. Agrotis munda Alabama argillacea Anomis mesogona Anomis spp. Calyptra spp. Copitarsia consueta Eudocima spp. Euxoa messoria Euxoa ochrogaster Helicoverpa punctigera *Mythimna* sp. Noctua fimbriata Noctua pronuba Oraesia spp. Orthodes rufula Peridroma margaritosa Peridroma saucia Protorthodes rufula Serrodes spp. Sphingomorpha spp. Spodoptera littoralis Xestia c-nigrum Oecophoridae Echiomima sp. Maroga melanostigma Psychidae Gymnelema plebigena Pterophoridae Geina periscelidactylus Pyralidae Desmia funeralis Euzophera bigella Ostrinia nubilalis Saturniidae Hemileuca eglanterina Hyalophora cecropia Sesiidae Vitacea polistiformis Sphingidae Eumorpha achemon Hippotion celerio Hyles euphorbiae Hyles lineata Theretra capensis Theretra oldenlandiae Tortricidae Archips argyrospilus Argyrotaenia citrana Argyrotaenia ljungiana Argyrotaenia velutinana Cryptophlebia leucotreta Endopiza viteana Eulia stalactitis Eupoecilia ambiguella Lobesia botrana Paralobesia viteana

quince trunk borer red coffee borer fruit-piercing moths brown cutworm cotton leafworm hibiscus looper fruit-piercing moths noctuid moth fruit-piercing moths darksided cutworm redbacked cutworm oriental tobacco budworm broad-bordered yellow underwing large yellow underwing fruit-piercing moths cutworm variegated cutworm fruit-piercing moth cotton leafworm spotted cutworm fruit tree borer bagworm grape leaf-folder quince moth European corn borer brown day-moth cecropia moth grape root borer achemon sphinx grapevine hawk moth spurge hawk moth whitelined sphinx grapevine hawk moth vine hawk moth fruit tree leafroller orange tortrix grey red-barred tortrix red-banded leafroller false codling moth vine moth

grape berry moth

grape berry moth

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

Brevipalpus chilensis	false spider mite
Brevipalpus lewisi	bunch mite
Brevipalpus lilium	false spider mite
Brevipalpus obovatus	privet mite
Tenuipalpus granati	false spider mite
Tetranychidae	
Eotetranychus carpini	tetranychid mite
Eotetranychus pruni	hickory scorch mite
Eotetranychus smithi	tetranychid mite
Eotetranychus viticola	tetranychid mite
Eotetranychus willamettei	hazel mite
Eotetranychus yumensis	Yumi spider mite
Eutetranychus orientalis	pear leaf blister mite
Oligonychus coffeae	tea red spider mite
Oligonychus mangiferus	mango spider mite
Oligonychus peruvianus	spider mite
Oligonychus punicae	avocado brown mite
Oligonychus yothersi	avocado red mite
Tetranychus kanzawai	kanzawa mite
Tetranychus mcdanieli	McDaniel spider mite
Tetranychus pacificus	Pacific spider mite
	1
Mollusc	
Gastropoda	
Stylommatophora	
Helicidae	
Cernuella virgata	small banded snails
Cochlicella barbara	small pointed garden snail
Theba pisana	white Italian snail
1	
Fungus	
Ascomycota	
Caliciales	
Unknown Caliciales	
Roesleria pallida	grape root rot
Diaporthales	Shipercorrec
Valsaceae	
Valsaceae	phomopsis canker
<b>Valsaceae</b> Diaporthe rudis (anamorph Phomopsis rudis)	phomopsis canker
Valsaceae Diaporthe rudis (anamorph Phomopsis rudis) Dothideales	phomopsis canker
Valsaceae Diaporthe rudis (anamorph Phomopsis rudis) Dothideales Mycosphaerellaceae	phomopsis canker black rot
Valsaceae Diaporthe rudis (anamorph Phomopsis rudis) Dothideales Mycosphaerellaceae Guignardia bidwellii (anamorph Phyllosticta	
Valsaceae Diaporthe rudis (anamorph Phomopsis rudis) Dothideales Mycosphaerellaceae Guignardia bidwellii (anamorph Phyllosticta ampelicida)	
Valsaceae Diaporthe rudis (anamorph Phomopsis rudis) Dothideales Mycosphaerellaceae Guignardia bidwellii (anamorph Phyllosticta ampelicida) Guignardia bidwellii f. sp. euvitis	
Valsaceae Diaporthe rudis (anamorph Phomopsis rudis) Dothideales Mycosphaerellaceae Guignardia bidwellii (anamorph Phyllosticta ampelicida) Guignardia bidwellii f. sp. euvitis Guignardia bidwellii f. sp. muscadinii	black rot
Valsaceae Diaporthe rudis (anamorph Phomopsis rudis) Dothideales Mycosphaerellaceae Guignardia bidwellii (anamorph Phyllosticta ampelicida) Guignardia bidwellii f. sp. euvitis Guignardia bidwellii f. sp. muscadinii Mycosphaerella angulata (anamorph Cercospora	
Valsaceae Diaporthe rudis (anamorph Phomopsis rudis) Dothideales Mycosphaerellaceae Guignardia bidwellii (anamorph Phyllosticta ampelicida) Guignardia bidwellii f. sp. euvitis Guignardia bidwellii f. sp. muscadinii Mycosphaerella angulata (anamorph Cercospora brachypus)	black rot
ValsaceaeDiaporthe rudis (anamorph Phomopsis rudis)DothidealesMycosphaerellaceaeGuignardia bidwellii (anamorph Phyllosticta ampelicida)Guignardia bidwellii f. sp. euvitisGuignardia bidwellii f. sp. muscadiniiMycosphaerella angulata (anamorph Cercospora brachypus)Schizothyriaceae	black rot - - angular leaf spot
ValsaceaeDiaporthe rudis (anamorph Phomopsis rudis)DothidealesMycosphaerellaceaeGuignardia bidwellii (anamorph Phyllosticta ampelicida)Guignardia bidwellii f. sp. euvitisGuignardia bidwellii f. sp. muscadinii Mycosphaerella angulata (anamorph Cercospora brachypus)Schizothyriaceae Schizothyrium pomi (anamorph Zygophiala jamaicensis)	black rot - - angular leaf spot
ValsaceaeDiaporthe rudis (anamorph Phomopsis rudis)DothidealesMycosphaerellaceaeGuignardia bidwellii (anamorph Phyllosticta ampelicida)Guignardia bidwellii f. sp. euvitisGuignardia bidwellii f. sp. nuscadiniiMycosphaerella angulata (anamorph Cercospora brachypus)Schizothyriaceae Schizothyrium pomi (anamorph Zygophiala jamaicensis)Hypocreales	black rot - - angular leaf spot
ValsaceaeDiaporthe rudis (anamorph Phomopsis rudis)DothidealesMycosphaerellaceaeGuignardia bidwellii (anamorph Phyllosticta ampelicida)Guignardia bidwellii f. sp. euvitisGuignardia bidwellii f. sp. muscadinii Mycosphaerella angulata (anamorph Cercospora brachypus)Schizothyriaceae Schizothyrium pomi (anamorph Zygophiala jamaicensis)Hypocreales Hypocreaceae	black rot - - angular leaf spot fly speck
ValsaceaeDiaporthe rudis (anamorph Phomopsis rudis)DothidealesMycosphaerellaceaeGuignardia bidwellii (anamorph Phyllosticta ampelicida)Guignardia bidwellii f. sp. euvitisGuignardia bidwellii f. sp. nuscadiniiMycosphaerella angulata (anamorph Cercospora brachypus)Schizothyriaceae Schizothyrium pomi (anamorph Zygophiala jamaicensis)Hypocreales	black rot - - angular leaf spot
ValsaceaeDiaporthe rudis (anamorph Phomopsis rudis)DothidealesMycosphaerellaceaeGuignardia bidwellii (anamorph Phyllosticta ampelicida)Guignardia bidwellii f. sp. euvitisGuignardia bidwellii f. sp. muscadiniiMycosphaerella angulata (anamorph Cercospora brachypus)Schizothyriaceae Schizothyrium pomi (anamorph Zygophiala jamaicensis)Hypocreales Lyindrocarpon destructans var. crassumLeotiales	black rot - - angular leaf spot fly speck
ValsaceaeDiaporthe rudis (anamorph Phomopsis rudis)DothidealesMycosphaerellaceaeGuignardia bidwellii (anamorph Phyllosticta ampelicida)Guignardia bidwellii f. sp. euvitisGuignardia bidwellii f. sp. muscadiniiMycosphaerella angulata (anamorph Cercospora brachypus)Schizothyriaceae Schizothyrium pomi (anamorph Zygophiala jamaicensis)Hypocreales Leotiales Dermateaceae	black rot - - angular leaf spot fly speck root rot
ValsaceaeDiaporthe rudis (anamorph Phomopsis rudis)DothidealesMycosphaerellaceaeGuignardia bidwellii (anamorph Phyllosticta ampelicida)Guignardia bidwellii f. sp. euvitisGuignardia bidwellii f. sp. muscadiniiMycosphaerella angulata (anamorph Cercospora brachypus)Schizothyriaceae Schizothyrium pomi (anamorph Zygophiala jamaicensis)Hypocreales Hypocreaceae Cylindrocarpon destructans var. crassumLeotiales Dermateaceae Pseudopezicula tetraspora	<ul> <li>black rot</li> <li>angular leaf spot</li> <li>fly speck</li> <li>root rot</li> <li>angular leaf scorch</li> </ul>
Valsaceae         Diaporthe rudis (anamorph Phomopsis rudis)         Dothideales         Mycosphaerellaceae         Guignardia bidwellii (anamorph Phyllosticta         ampelicida)         Guignardia bidwellii f. sp. euvitis         Guignardia bidwellii f. sp. muscadinii         Mycosphaerella angulata (anamorph Cercospora         brachypus)         Schizothyriaceae         Schizothyriaceae         Schizothyrium pomi (anamorph Zygophiala jamaicensis)         Hypocreales         Hypocreaceae         Cylindrocarpon destructans var. crassum         Leotiales         Dermateaceae         Pseudopezicula tetraspora         Pseudopezicula tracheiphila	black rot - - angular leaf spot fly speck root rot
ValsaceaeDiaporthe rudis (anamorph Phomopsis rudis)DothidealesMycosphaerellaceaeGuignardia bidwellii (anamorph Phyllosticta ampelicida)Guignardia bidwellii f. sp. euvitisGuignardia bidwellii f. sp. euvitisGuignardia bidwellii f. sp. muscadiniiMycosphaerella angulata (anamorph Cercospora brachypus)SchizothyriaceaeSchizothyriaceaeSchizothyrium pomi (anamorph Zygophiala jamaicensis)HypocrealesHypocrealesCylindrocarpon destructans var. crassumLeotialesDermateaceaePseudopezicula tetraspora Pseudopezicula tracheiphilaSclerotiniaceae	black rot - - angular leaf spot fly speck root rot angular leaf scorch rotbrenner
ValsaceaeDiaporthe rudis (anamorph Phomopsis rudis)DothidealesMycosphaerellaceaeGuignardia bidwellii (anamorph Phyllosticta ampelicida)Guignardia bidwellii f. sp. euvitisGuignardia bidwellii f. sp. euvitisGuignardia bidwellii f. sp. muscadiniiMycosphaerella angulata (anamorph Cercospora brachypus)Schizothyriaceae Schizothyrium pomi (anamorph Zygophiala jamaicensis)HypocrealesHypocrealesHypocreaceae Cylindrocarpon destructans var. crassumLeotialesDermateaceae Pseudopezicula tetraspora Pseudopezicula tracheiphilaSclerotiniaceae Grovesinia pyramidalis (anamorph Cristulariella	<ul> <li>black rot</li> <li>angular leaf spot</li> <li>fly speck</li> <li>root rot</li> <li>angular leaf scorch</li> </ul>
ValsaceaeDiaporthe rudis (anamorph Phomopsis rudis)DothidealesMycosphaerellaceaeGuignardia bidwellii (anamorph Phyllosticta ampelicida)Guignardia bidwellii f. sp. euvitisGuignardia bidwellii f. sp. euvitisGuignardia bidwellii f. sp. muscadiniiMycosphaerella angulata (anamorph Cercospora brachypus)SchizothyriaceaeSchizothyriaceaeSchizothyriam pomi (anamorph Zygophiala jamaicensis)HypocrealesHypocrealesCylindrocarpon destructans var. crassumLeotialesDermateaceae Pseudopezicula tetraspora Pseudopezicula tracheiphilaSclerotiniaceae Grovesinia pyramidalis (anamorph Cristulariella moricola)	black rot - - angular leaf spot fly speck root rot angular leaf scorch rotbrenner
ValsaceaeDiaporthe rudis (anamorph Phomopsis rudis)DothidealesMycosphaerellaceaeGuignardia bidwellii (anamorph Phyllosticta ampelicida)Guignardia bidwellii f. sp. euvitisGuignardia bidwellii f. sp. euvitisGuignardia bidwellii f. sp. muscadiniiMycosphaerella angulata (anamorph Cercospora brachypus)SchizothyriaceaeSchizothyriaceaeSchizothyriaceaeCylindrocarpon destructans var. crassumLeotialesDermateaceae Pseudopezicula tetraspora Pseudopezicula tracheiphilaSclerotiniaceae Grovesinia pyramidalis (anamorph Cristulariella moricola)Rhytismatales	black rot - - angular leaf spot fly speck root rot angular leaf scorch rotbrenner
ValsaceaeDiaporthe rudis (anamorph Phomopsis rudis)DothidealesMycosphaerellaceaeGuignardia bidwellii (anamorph Phyllosticta ampelicida)Guignardia bidwellii f. sp. euvitisGuignardia bidwellii f. sp. euvitisGuignardia bidwellii f. sp. muscadiniiMycosphaerella angulata (anamorph Cercospora brachypus)SchizothyriaceaeSchizothyriaceaeSchizothyriaceaeCylindrocarpon destructans var. crassumLeotialesDermateaceaePseudopezicula tetraspora Pseudopezicula tracheiphilaSclerotiniaceae Grovesinia pyramidalis (anamorph Cristulariella moricola)Rhytismatales Rhytismataceae	black rot - - angular leaf spot fly speck root rot angular leaf scorch rotbrenner target spot
ValsaceaeDiaporthe rudis (anamorph Phomopsis rudis)DothidealesMycosphaerellaceaeGuignardia bidwellii (anamorph Phyllosticta ampelicida)Guignardia bidwellii f. sp. euvitisGuignardia bidwellii f. sp. euvitisGuignardia bidwellii f. sp. muscadiniiMycosphaerella angulata (anamorph Cercospora brachypus)SchizothyriaceaeSchizothyriaceaeSchizothyriaceaeCylindrocarpon destructans var. crassumLeotialesDermateaceae Pseudopezicula tetraspora Pseudopezicula tracheiphilaSclerotiniaceae Grovesinia pyramidalis (anamorph Cristulariella moricola)Rhytismatales	black rot - - angular leaf spot fly speck root rot angular leaf scorch rotbrenner

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

Caphalosporium sp	
Cephalosporium sp. Penicillium aurantiogriseum	 penicillium rot
Verticillium heterocladum	-
Unknown Hyphomycetes	
Unknown Hyphomycetes	
Briosia ampelophaga	leaf blotch
Candida krusei	yeasty rot
Candida steatolytica [Animals Biosecurity]	-
<i>Oidium</i> sp.	powdery mildew
Paecilomyces farinosus	-
Paecilomyces spp.	-
Phaeoacremonium aleophilum	-
Phaeoisariopsis sp.	-
Stigmina vitis	leaf fall
Bacterium	
Pseudomonadaceae	
Xanthomonas campestris pv. viticola	bacterial canker
Xylella fastidiosa	Pierce's disease
Xylophilus ampelinus	bacterial blight
Rhizobiaceae	8
Agrobacterium rubi	cane gall
Virus	
Artichoke Italian latent virus	_
<i>Cherry leaf roll virus</i> [strains not in New Zealand]	-
Grapevine Ajinashika disease virus	-
Grapevine Algerian latent virus	-
Grapevine Anatolian ringspot virus	-
Grapevine angular mosaic virus	-
Grapevine berry inner necrosis virus	-
Grapevine Bulgarian latent virus	-
Grapevine chrome mosaic virus	-
Grapevine deformation virus	-
Grapevine fanleaf virus [strains not in New Zealand]	-
Grapevine labile rod-shaped virus	-
Grapevine leafroll-associated virus [type 7]	-
Grapevine line pattern virus	-
Grapevine pinot gris virus	-
Grapevine red blotch-associated virus	-
Grapevine stunt virus	-
Grapevine Tunisian ringspot virus	-
Grapevine virus D Peach rosette mosaic virus	-
Petunia asteroid mosaic virus	-
Raspberry ringspot virus	-
Sowbane mosaic virus	-
Strawberry latent ringspot virus [strains not in New	_
Zealand]	
Tomato ringspot virus	-
X/2	
Viroid Australian grapevine viroid	_
Grapevine yellow speckle viroid 2	-
Grupevine yeuow speckie virola 2	-
Phytoplasma	
Australian grapevine yellows phytoplasma	-
Grapevine bois noir phytoplasma	-
Grapevine flavescence doree phytoplasma	-
Grapevine yellows	-
Palatine grapevine yellows	-
Tomato big bud phytoplasma	-

#### Diseases of unknown aetiology

Grapevine vein clearing	-
LN33 stem grooving	-
Syrah decline	-

\_

# Inspection, Testing and Treatment Requirements for Vitis

Insects	MPI-ACCEPTED METHODS (See notes below)
	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	All cuttings must be dipped in 1% sodium hypochlorite for 2 minutes upon
	arrival in the post entry quarantine facility.
	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	All cuttings must be dipped in 1% sodium hypochlorite for 2 minutes upon
	arrival in the post entry quarantine facility.
Agrobacterium rubi	Growing season inspection in PEQ for disease symptom expression AND
	Hot water treatment (Refer to "Approved Treatments for Vitis")
Xanthomonas campestris pv.	Growing season inspection in PEQ for disease symptom expression AND
viticola	Hot water treatment (Refer to "Approved Treatments for Vitis")
Xylophilus ampelinus	Growing season inspection in PEQ for disease symptom expression AND
	Hot water treatment (Refer to "Approved Treatments for <i>Vitis</i> ")
Xylella fastidiosa	Growing season inspection in PEQ for disease symptom expression AND
	PCR (two sets, samples to be collected at least four weeks apart) AND Hot
<b>T</b> 74	water treatment (Refer to "Approved Treatments for Vitis")
Virus	
Artichoke Italian latent virus	Growing season inspection in PEQ for disease symptom expression
Cherry leaf roll virus [strains	ELISA or PCR AND herbaceous indicators (Ca, Cq, Cs and Nt)
not in New Zealand] Grapevine Ajinashika disease	Crowing accounting in DEO for discours arrestory arrestory
virus	Growing season inspection in PEQ for disease symptom expression
Grapevine Algerian latent virus	Growing season inspection in PEQ for disease symptom expression
Grapevine Anatolian ringspot	Growing season inspection in PEQ for disease symptom expression
virus	Stowing season inspection in LEQ for discuse symptom expression
Grapevine angular mosaic	Growing season inspection in PEQ for disease symptom expression
virus	
Grapevine berry inner necrosis	Growing season inspection in PEQ for disease symptom expression
virus	
Grapevine Bulgarian latent	Herbaceous indicators (Ca and Cq)
virus	
Grapevine chrome mosaic virus	Herbaceous indicators (Ca, Cq, Cs and Nt)
Grapevine deformation virus	Herbaceous indicators (Ca and Cq)
Grapevine fanleaf virus [strains	ELISA or PCR AND herbaceous indicators (Ca, Cq, and Cs)
not in New Zealand]	
Grapevine labile rod-shaped	Growing season inspection in PEQ for disease symptom expression
virus	
Grapevine leafroll-associated	PCR
virus [type 7]	
Grapevine line pattern virus	Growing season inspection in PEQ for disease symptom expression
Grapevine pinot gris virus	PCR
Grapevine red blotch-	PCR
associated virus	Growing season inspection in DEO for disease symptom symptom
Grapevine stunt virus	Growing season inspection in PEQ for disease symptom expression Growing season inspection in PEQ for disease symptom expression
Grapevine Tunisian ringspot	orowing season inspection in PEQ for disease symptom expression
VIPUS	PCR
virus Grapevine virus D	
Grapevine virus D	
Grapevine virus D Peach rosette mosaic virus	ELISA or PCR AND herbaceous indicators (Ca, Cq, Cs and Nt)
Grapevine virus D	

Strawberry latent ringspot virus [strains not in New Zealand]	PCR AND herbaceous indicators (Ca, Cq and Cs)
Tomato ringspot virus	ELISA or PCR AND herbaceous indicators (Ca and Cq)
Viroids	Growing season inspection in PEQ for disease symptom expression
Phytoplasmas	<ul> <li>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>")</li> <li>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)</li> </ul>
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, refer to section 3.1 (iii) for offshore MPI-accredited facilities or 3.2 (iii) for non-accredited facilities.

### 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) <u>Special tissue culture media requirements</u>

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) <u>Additional declarations to the phytosanitary certificate</u>

No additional declarations are required.

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 Arbuscular mychorrhizae All regulated species Ectomycorrhizae All regulated species

black rot

For organisms intercepted that are not listed within this pest list refer to MPI's "<u>Biosecurity</u> <u>Organisms Register for Imported Commodities</u>" to determine regulatory status.

If the organism is not identified or categorised within the register, please contact <u>plantimports@mpi.govt.nz</u>

**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

**Quarantine Pests**: *Phytophthora palmivora* 

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

### a. Conditions for *Phytophthora palmivora*<sup>1</sup>

One of the following Additional Declarations must be endorsed on the phytosanitary certificate:

"The [insert species name] plants in this consignment have been sourced from [insert country name], which is free from *Phytophthora palmivora*".

### OR

"The [insert species name] plants in this consignment were produced in a "pest free area" for *Phytophthora palmivora*".

### OR

"The [insert species name] plants in this consignment were produced in a "pest free place of production" for *Phytophthora palmivora*".

### **B.** For Tissue Cultures

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

<sup>1</sup><u>Implementation of measures</u>:

For consignments with a phytosanitary certificate issued on or after 25 May 2018 the requirements for *Phytophthora palmivora* must be met.

For consignments with a phytosanitary certificate issued no later than <u>24 May 2018</u>, the requirements for *Phytophthora*. *palmivora* are not mandatory.

**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) <u>Special tissue culture media requirements</u>

The tissue culture media may contain charcoal.

### (iii) <u>Phytosanitary requirements</u>

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 3B

**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	armillaria root rot
subcorticalis)	
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."