BIOSECURITY NEW ZEALAND STANDARD 155.02.06 Importation of Nursery Stock

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

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



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ENDORSEMENT

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

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

REVIEW

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

AMENDMENT RECORD

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

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
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1. INTRODUCTION

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

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

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

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

1.2 SCOPE

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

1.3 REFERENCES

- Biosecurity Act 1993 (as amended by the Biosecurity Amendment Act 1997)
- Hazardous Substances and New Organisms Act 1996 (HSNO Act 1996)
- International Plant Protection Convention (IPPC)
- Biosecurity New Zealand Standard PBC-NZ-TRA-PQCON: Specification for the Registration of a Plant Quarantine or Containment Facility, and Operator
- Biosecurity New Zealand Standard PIT-OS-TRA-ACPQF: Accreditation of Offshore Plant Quarantine Facilities and Operators
- Biosecurity New Zealand Standard 155.04.03: Specification for the Registration of a Plant Pest Diagnostic Laboratory, and Operator

1.4 DEFINITIONS AND ABBREVIATIONS

a.i.: Active ingredient.

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

Budwood: See Cuttings

Bulb: A thickened, vegetative part of a plant in a dormant state, e.g., true bulbs, bulbils, corms, tubers and rhizomes.

Cuttings: A nursery stock commodity sub-class for budwood and cutting propagation material that are stems only (no roots). Cuttings may be required to be dormant (no leaves).

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

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

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

Graftstick: See Cuttings

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

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

Inspector: Inspector under the Biosecurity Act 1993.

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

IPPC: International Plant Protection Convention

International Standard for Phytosanitary Measures: An international standard adopted by the Conference of FAO, the Interim Commission on Phytosanitary Measures or the Commission on Phytosanitary Measures, established under the IPPC [CEPM, 1996; revised CEPM, 1999]

ISPM: International Standard for Phytosanitary Measures

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

MAF: The New Zealand Ministry of Agriculture and Forestry.

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

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

Organization (National)].

NPPO: National Plant Protection Organisation

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

Permit to Import: See Import permit

Pest: Any species, strain or biotype of plant, animal or pathogenic agent injurious to plants or plant products [FAO, 1990; revised FAO, 1995; IPPC, 1997] 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 in tissue culture: Plants *in vitro* that have been prepared as tissue culture from one parent by asexual reproduction (clonal techniques) under sterile conditions.

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

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

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

Scionwood: See Cuttings

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

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

1.5 GENERAL

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

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

Environmental Risk Management Authority PO Box 131 Wellington NEW ZEALAND

Phone: +64 4 916 2426 E-mail: <u>info@ermanz.govt.nz</u> Fax :+64 4 914 0433 Website: http://www.ermanz.govt.nz

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

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

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

Border Standards Biosecurity Standards Group Biosecurity New Zealand Ministry of Agriculture and Forestry P.O. Box 2526 Wellington NEW ZEALAND

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

1.6 CONVENTION ON INTERNATIONAL TRADE IN ENDANGERED SPECIES

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

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

2. IMPORT SPECIFICATION AND ENTRY CONDITIONS

2.1 IMPORT SPECIFICATION

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

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

2.2 ENTRY CONDITIONS

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

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

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

2.2.1 Basic Conditions

2.2.1.1 Types of Nursery Stock that may be Imported

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

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

2.2.1.2 Import Permit

An import permit is required unless specified otherwise in section 2.2.2 or a schedule of special conditions. To apply for a permit, complete the Form "Application to Import Plant Material" available from the Permit Office or on MAF's website: http://www.maf.govt.nz/biosecurity/imports/plants/forms/ai-ns.pdf

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

2.2.1.3 Labelling

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

2.2.1.4 Cleanliness

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

2.2.1.5 Phytosanitary Certificate

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

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

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

2.2.1.6. Pesticide treatments for whole plants and cuttings

(a) For whole plants the phytosanitary certificate must have the following additional declaration:

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

OR

"The roots of the plants have been dipped in fenamiphos at 1.6g a.i. per litre of water for 30 minutes".

(b) All whole plants and cuttings must be treated for insects and mites as follows unless stated otherwise in the "schedule of special conditions": Insects

One of the following three treatments is required:

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

Rate (g/m ³)	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 (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
Pyrethroid	Deltamethrin	15 mins	
Pyrethroid	Fenvalerate	15 mins	
Spinosyns	Spinosad	2-5 mins	Dip/spray at room temperature

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<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	2-5 mins	Non-ionic surfactant
	dip/spray)		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/	2-5 mins	Non-ionic surfactant
	spray)		required for dipping
Organophosphorous	Dimethoate	2-5 mins	Non-dormant material only
Organophosphorous	Pirimiphos-methyl (0.475 g per litre of	2-5 mins	Non-ionic surfactant
	dip/spray)		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 three treatments is required:

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(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 ³)	Temperature (°C)
48	10 - 15
40	16 - 20
32	21 - 27
28	28 - 32

OR

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

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

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

Mites

One of the following three treatments is required:

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

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

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

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

Nematodes

Both of the following treatments are required:

(1) Methyl bromide fumigation: fumigation for 2 hours at atmospheric pressure at one of the combinations of rate (g/m^3) and temperature (°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	5 mins	
g per litre of dip)		
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-	Thiram (11.2 g per litre of dip)	-	Dip at room temperature
carbamate			
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 *Helicobasidium mompa*

A. For nursery stock from the following countries:

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

For whole plants, cuttings and dormant bulbs:

(i) the phytosanitary certificate must have the following additional declaration: "The nursery stock has been sourced from a "Pest free area", free from *Helicobasidium mompa*".

B. For nursery stock from the following countries:

Azerbaijan	Kazakstan	Russia	Turkmenistan
China	Kyrgyzstan	South Africa	Uganda
Georgia	Malawi	South Korea	Uzbekistan
India	Malaysia	Taiwan	
Indonesia	Mongolia	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 3 PEQ as stated in the "schedule of special conditions".

Both of the following treatments are required:

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

Active ingredient	Dip time	Notes	

Bromo-chloro-dimethylhydantoin (8.1-16	5 mins	
mg per 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-	Thiram (11.2 g per litre of dip)	-	Dip at room
carbamate			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.

2.2.1.9 Measures for *Phymatotrichopsis omnivora*

For whole plants (not cuttings, dormant bulbs or tissue culture) from Brazil, Mexico, the United States of America or Venezuela, the phytosanitary certificate must have the following additional declaration:

"The nursery stock has been sourced from a "Pest free area", free from *Phymatotrichopsis* omnivora".

2.2.1.10 Post-Entry Quarantine (PEQ)

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

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

2.2.2 ENTRY CONDITIONS FOR TISSUE CULTURE

2.2.2.1 Labelling

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

2.2.2.2 Cleanliness & Tissue Culture Media

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

2.2.2.3 Phytosanitary Certificate

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

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

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

2.2.2.4 Import permit

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

2.2.2.5 Inspection on arrival

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

2.2.3 IMPORTATION OF POLLEN

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

2.2.4 IMPORTATION OF NEW ORGANISMS

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

2.3 COMPLIANCE PROCEDURES

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

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

2.3.1 VALIDATION OF OVERSEAS MEASURES

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

2.3.2 TREATMENT AND TESTING OF THE CONSIGNMENT

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

Upon arrival and following inspection at the border, if any required treatment(s) or testing of the consignment has not been completed within the prescribed period, these measures may be completed in New Zealand where such services are available, and by prior arrangement with MAF. All testing and treatment in New Zealand must be

completed in MAF-accredited facilities, accredited to MAF standards 155.04.03: Specification for the Registration of a Plant Pest Diagnostic Laboratory, and Operator and BMG-STD-TREAT: Approval of Suppliers Providing Treatment of Imported Risk Goods and Forestry/Plant Related Material for Export, respectively.

2.4 NEW ZEALAND NURSERY STOCK RETURNING FROM OVERSEAS

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

(i) Nursery stock "unopened" offshore

Product in its original pest-proof container with the original seals intact is permitted entry subject to a product reconciliation check on arrival to verify that it is New Zealand produce.

(ii) Nursery stock "opened" offshore

Nursery stock inspected offshore, and rejected for any reason, is permitted entry subject to the following:

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

3. SCHEDULE OF SPECIAL ENTRY CONDITIONS

3.1 SPECIAL ENTRY CONDITIONS

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

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

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

3.2 ACCREDITATION OF OFFSHORE PLANT QUARANTINE FACILITIES

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

http://www.maf.govt.nz/biosecurity/imports/plants/offshore-accredited-facilities.htm

3.3 AMENDMENTS TO THE PLANTS BIOSECURITY INDEX

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

The Plants Biosecurity Index will be continuously updated on MAF's website: <u>http://www1.maf.govt.nz/cgi-bin/bioindex/bioindex.pl</u>

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

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

GENERAL CONDITIONS:

Countries: All

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

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

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

B. For Tissue Cultures:

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

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

GENERAL CONDITIONS:

Countries: All

Quarantine Pests: Xylella fastidiosa

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

A. For Cuttings and Whole Plants from All Countries except Argentina, Belize, the Caribbean Islands, Costa Rica, El Salvador, Guatemala, Honduras, Mexico, Nicaragua, Panama, Peru, United States of America, Venezuela and Yugoslavia:
PEQ: Level 2
Minimum Period: 3 months
Additional Declaration:
"The plants have been sourced from a "Pest free area", free from *Xylella fastidiosa*".

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

Acca sellowiana

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

GENERAL CONDITIONS:

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

Quarantine Pests: Puccinia psidii

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

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

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

GENERAL CONDITIONS:

Countries: All

Quarantine Pests: Cryphonectria parasitica; Phytophthora ramorum; Xylella fastidiosa

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

A. For Cuttings (do	rmant) and Whole Plants (dormant) from:
a) Australia, Canad	a, Israel and South Africa:
PEQ: Level 2	
Minimum Period: 3	months
Additional Declarat	ion(s):
1. " <i>Cryphonectria pa</i> were produced)".	rasitica is not known to occur in (the country or state where the plants/cuttings
2. "The plants have b	een sourced from a "Pest free area", free from <i>Phytophthora ramorum</i>
and Xylella fastidiosa	ι".
OR	
PEQ:	Level 3
Minimum Period:	6 months
b) All Countries exc	ept Argentina, Australia, Belize, Canada, the Caribbean Islands,
Costa Rica, El Salva	ndor, Guatemala, Honduras, Israel, Mexico, Nicaragua, Panama,
Peru, South Africa, United States of America, Venezuela and Yugoslavia:	
PEQ:	Level 3

Minimum Period: 6 months

C. For Tissue Cultures from All Countries:

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

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

GENERAL CONDITIONS:

Countries:	Australia, Hawaii, mainland USA	
Quarantine Pests:	Lethal yellowing; cadang-cadang	
Entry Conditions:	Basic;	with variations and additional conditions as specified below:
PFO.	Level 2	

PEQ:	Level 2
Minimum Period:	3 months
Height Limit:	Plants must not exceed 1.5m in height

Additional Declaration:

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

Actinidia

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

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

Cuttings (dormant); Plants in tissue culture

2. Pests of Actinidia

Refer to the pest list.

3. Entry conditions for:

3.1 Actinidia cuttings and tissue culture from any country

(i) *Documentation*

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

(ii) Phytosanitary requirements

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

The Actinidia cuttings / plants in tissue culture [choose ONE option] have been:

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

AND

- treated for regulated insects and mites as described in section 2.2.1.6 of the basic conditions within 7 days prior to shipment [cuttings only].

AND

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

(iii) Additional declarations to the phytosanitary certificate

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

(iv) Special tissue culture media requirements

The tissue culture media must not contain charcoal.

(v) *Post-entry quarantine*

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

Quarantine Period and Inspection, Testing and Treatment Requirements: The nursery stock will be grown for a minimum period of 6 months in post-entry quarantine and will be inspected, treated and/or tested for regulated pests as specified in the "Inspection, Testing and Treatment Requirements for *Actinidia*", at the expense of the importer. Six months is an

indicative minimum quarantine period and this period may be extended if material is slow growing, pests are detected, or treatments/testing are required.

Pest List for Actinidia

REGULATED PESTS (actionable)

Insect	
Insecta	
Coleoptera	
Curculionidae	
Otiorhynchus salicicola	weevil
Hemiptera	
Miridae	
Adelphocoris lineolatus	alfalfa plant bug
Homoptera	
Empoasca vitis	grape leatnopper
	C
Ceropiasies rusci	lig wax scale
Diaspididae	white needs coole
Pseudaulacaspis peniagona	white peach scale
Lepidoptera	
	grapa harn, math
Ludesia dull'alla Proculio curorio	grape perry motin
Proculia dui dila Draculia abrucantaria	grapovino loof rolling tortricid
Proeulia chi ysopieris	grapevine lear-rolling tortricid
Thripidaa	
Scirtathring dorgalic	chilli thring
Mite	
Arachnida	
Acarina	
Brevipalpus chilensis	false spider mite
	·····
Fungus	
Ascomycota	
Hypocreales	
Hypocreaceae	
Calonectria ilicicola (anamorph Cylindrocladium parasiticum)	root and stem rot
mitosporic fungi (Coelomycetes)	
Sphaeropsidales	
Sphaerioidaceae	
Phyllosticta actinidiae	Brown leaf spot
Basidiomycota: Basidiomycetes	
Agaricales	
Tricholomataceae	
Armillaria mellea (anamorph Rhizomorpha subcorticalis)	armillaria root rot
Posterium	
Bacterium	
Pseudomonadaceae	here the state of the second second
Pseudomonas syringae pv. actinidiae	bacterial canker
Virue	
VIIUS	
Apple stem grooving virus [Actinidia infecting strain]	-
Disease of unknown actiology	
Chloratic disassa of kiwifruit	
	-

NON-REGULATED PESTS (non-actionable)

Insect	
Insecta	
Coleoptera	
Curculionidae	
Asynonychus cervinus	Fuller's rose weevil
Scarabaeidae	
Costelytra zealandica	grass grub
Scolytidae	
Hylastes ater	black pine bark beetle
Hemiptera	
Miridae	
Calocoris norvegicus	potato mirid
Homoptera	
Aleyrodidae	
Trialeurodes vaporariorum	greenhouse whitefly
Coccidae	
Ceroplastes sinensis	Chinese wax scale
Coccus hesperidum	brown soft scale
Saissetia oleae	black scale
Diaspididae	
Aonidiella aurantii	California red scale
Aspidiotus nerii	oleander scale
Diaspidiotus perniciosus	San Jose scale
Eupulvinaria hydrangeae	cottony hydrangea scale
Hemiberlesia lataniae	latania scale
Hemiberlesia rapax	greedy scale
Ricanlidae	
Scolypopa australis	passionvine hopper
Lepidoptera	
Oecophoridae	have a large state
Stathmopoda skelloni	bud moth
I Ortricidae	
Chephasia jactatana	black lyre leatroller
Ctenopseustis obliquana	brownneaded leatroller
Epipnyas postvittana	light brown apple moth
Planotortrix excessana	greenneaded leatroller
Planotortrix notopnaea	blacklegged leatroller
Inysanoptera	
i nripidae	ana ang ang ang at tanin a
Helloln/Ips naemorrholdalls	greennouse inrips
Thrips intaginis	plague thinps
i nrips obscuratus	New Zealand flower thrips
Mite	
Arachnida	
Acarina	
Tenuipalpidae	
Brevipalpus obovatus	privet mite
Tetranychidae	

sixspotted mite twospotted spider mite

_

Eotetranychus sexmaculatus

Tetranychus urticae

Orthotydeus caudatus

Tydeidae

Fungus Ascomycota Diaporthales Valsaceae Diaporthe actinidiae phomopsis canker Diaporthe perniciosa (anamorph Phomopsis mali) canker Diatrypales Diatrypaceae Eutypa lata eutypa dieback **Dothideales** Botryosphaeriaceae Botrvosphaeria dothidea (anamorph Fusicoccum aescul) canker Botryosphaeria parva (anamorph Fusicoccum parvum) canker Botryosphaeria stevensii (anamorph Diplodia mutila) botryosphaeria canker Hypocreales Hypocreaceae Calonectria kyotensis (anamorph Cylindrocladium scoparium) root and stem rot Gibberella acuminata (anamorph Fusarium acuminatum) fusarium storage rot Nectria haematococca (anamorph Fusarium solani) fusarium fruit rot Nectria radicicola var. macroconidialis cylindrocarpon rot Leotiales Sclerotiniaceae Botryotinia fuckeliana (anamorph Botrytis cinerea) grey mould Monilinia fructicola American brown rot Sclerotinia sclerotiorum cottony rot Phyllachorales Phyllachoraceae Glomerella cingulata (anamorph Colletotrichum anthracnose gloeosporioides) Basidiomycota: Basidiomycetes Agaricales Tricholomataceae Armillaria novae-zealandiae armillaria Ceratobasidiales Ceratobasidiaceae Thanatephorus cucumeris (anamorph Rhizoctonia solani) rhizoctonia rot Poriales Coriolaceae Pycnoporus coccineus branch canker Stereales Atheliaceae Rolf's disease Athelia rolfsii (anamorph Sclerotium rolfsii) Oomycota Pythiales Pythiaceae Phytophthora cactorum phytophthora crown and root rot phytophthora crown and root rot Phytophthora cinnamomi Phytophthora citricola brown rot of fruit Phytophthora cryptogea pink rot Phytophthora lateralis brown rot Phytophthora megasperma pink rot Phytophthora nicotianae var. nicotianae root and stem rot mitosporic fungi (Coelomycetes) Sphaeropsidales Sphaerioidaceae Fusicoccum luteum bunch rot Macrophomina phaseolina ashy stem blight phoma rot Phoma exigua Phoma glomerata phoma fruit and leaf spot Phoma huancayensis phoma rot

Phoma macrostoma Phoma nigricans Phoma plurivora unknown Coelomycetes unknown Coelomycetes Colletotrichum acutatum mitosporic fungi (Hyphomycetes) Hyphomycetales Dematiaceae Alternaria alternata Cladosporium oxysporum Pseudocercospora handelii Thielaviopsis basicola Moniliaceae Acremonium alternatum Verticillium albo-atrum unknown Hyphomycetes unknown Hyphomycetes Aureobasidium pullulans **Bacterium** Pseudomonadaceae

Pseudomonadaceae Pseudomonas marginalis Pseudomonas viridiflava Rhizobiaceae Agrobacterium tumefaciens fruit and leaf spot leaf spot bunch rot

anthracnose

black stalk rot cladosporium leaf spot cercospora leaf spot black root rot

verticillium wilt

seed rot

soft rot leaf blight

crown gall

Inspection, Testing and Treatment Requirements for Actinidia

ORGANISM TYPES	NZ MAF ACCEPTABLE METHODS
	(See notes below)
Insects	Visual inspection AND approved insecticide treatments
	(Refer to section 2.2.1.6 of the basic conditions) [cuttings only]
Mite	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	
Calonectria ilicicola	Growing season inspection in PEQ for disease symptom
	expression.
Phyllosticta actinidiae	Growing season inspection in PEQ for disease symptom
	expression.
Bacterium	
Pseudomonas syringae	PCR using the OCTF/OCTR primers (Sawada et al., 1997)
pv. actinidiae	or PAV 1/P 22 primers (Scortichini et al., 2002)
Virus	
Apple stem grooving virus	ELISA or PCR (Clover et al., 2003), AND herbaceous
[Actinidia infecting strain]	indicators Cq, Nb, Ng, No and Pv AND TEM.
Disease of unknown aetiology	
Chlorotic disease of kiwifruit	Growing season inspection in PEQ for disease symptom
	expression.

Notes:

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

- 9. Positive and negative controls (including a blank water control) must be used in PCR. Ideally positive internal controls and a negative plant control should be used. Internal controls in PCR tests are important to avoid the risk of false negatives.
- 10. Inspect *Actinidia* plants for signs of pest and disease at least twice per week during periods of active growth and once per week during dormancy.
- 11. With prior notification, MAF will accept other internationally recognised testing methods.

References

- Clover, G.R.G., Pearson, M.N., Elliott, D.R., Tang, Z., Smales, T.E. and Alexander, B.J.R. (2003). Characterization of a strain of *Apple stem grooving virus* in *Actinidia chinensis* from China. *Plant Pathology* **52**: 371-378.
- Sawada, H., Takeuchi, T. and Matsuda, I. (1997). Comparative analysis of *Pseudomonas syringae* pv. *actinidiae* and pv. *phaseolicola* based on phaseolotoxin-resistant ornithine carbamoyltransferase gene and 16S- 23S rRNA Intergenic spacer sequences. *Applied and Environmental Microbiology* **63**: 282-288.
- Scortichini, M., Marchesi, U. and Prospero, P. (2002). Genetic relatedness among *Pseudomonas avellanae*, *P. syringae* pv. *theae* and *P. s.* pv. *actinidiae*, and their identification. *European Journal of Plant Pathology* **108**: 269-278.

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

GENERAL CONDITIONS:

Countries: All

Quarantine Pests: Phytophthora ramorum; Xylella fastidiosa

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

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

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

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

Dormant bulbs Plants in tissue culture

2. Pests of Allium

Refer to the pest list.

3. Entry conditions for:

3.1 Allium dormant bulbs from any country

(i) *Documentation*

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

(ii) *Phytosanitary requirements*

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

The Allium dormant bulbs have been:

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

AND

- sourced from a "Pest free area", "Pest free place of production" or "Pest free production site", free from regulated nematodes and fungi OR treated for regulated nematodes and fungi as described in section 2.2.1.7 of the basic conditions within 7 days prior to freezing, cold-storage or shipment.

AND

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

AND

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

AND

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

(iii) Additional declarations to the phytosanitary certificate

If satisfied that the pre-shipment activities have been undertaken, the exporting country NPPO must confirm this by recording the treatments applied in the "Disinfestation and/or Disinfection Treatment" section, and by providing the following additional declaration to the phytosanitary certificate:

"The Allium dormant bulbs in this consignment have been:

- sourced from a "Pest free area", "Pest free place of production" or "Pest free production site", free from regulated nematodes and fungi [if applicable].

AND

sourced from a "Pest free area", "Pest free place of production" or "Pest free production site", free from regulated bacteria, phytoplasmas and viruses."

(iv) *Post-entry quarantine*

PEQ: Level 2

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

3.2 Allium plants in tissue culture from any country

(i) *Documentation*

Phytosanitary certificate: a completed phytosanitary certificate, issued by the national plant protection organisation (NPPO) of the exporting country, is required. **Import permit:** no import permit is required.

(ii) Special tissue culture media requirements

The tissue culture media must not contain charcoal.

(iii) *Phytosanitary requirements*

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

The Allium plants in tissue culture have been:

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

AND

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

AND

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

(iv) Additional declarations to the phytosanitary certificate

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

"The Allium plants in tissue culture have been derived from parent stock:

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

AND

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

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

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

Import permit: an import permit is required.

PEQ: Level 3

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

Pest List for *Allium*

REGULATED PESTS (actionable)

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	2
Suillia lurida	garlic fly
Suillia univittata	-
Syrphidae	
Eumerus amoenus	onion bulb fly
Lepidoptera	-
Ċossidae	
Dyspessa ulula	garlic moth
Yponomeutidae	ő
Acrolepia alliella	-
Acrolepia sapporensis	allium leafminer
Acrolepiopsis assectella	leek moth
Thysanoptera	
Thripidae	
Thrips tabaci [vector]	onion thrips
Mite	
Arachnida	
Acarina	
Acaridae	
Rhizoalvphus setosus	bulb mite
Eriophvidae	
Aceria tulipae [vector]	wheat curl mite
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
l ylenchidae	
Ditylenchus dipsaci [strains not in New Zealand]	stem and bulb nematode
-	
Fungus	
Ascomycota	
Dothideales	
Mycosphaerellaceae	
Mycosphaerella allii-cepae (anamorph Cladosporium allii-	leaf blotch
cepae)	
Basidiomycota: Basidiomycetes	
Agaricales	
Iricholomataceae	a martilla alla sua a bara b
Armiliaria mellea (anamorph Rhizomorpha subcorticalis)	armiliaria root rot
Basidiomycota: Tellomycetes	
Uredinales	
Melampsoraceae	nuct
Melanipsora allii-irayiiis Duccipiacoao	TUSI
Puccinia esparadi	acharaque ruet
Pucchilla aspaiayi Pasidiomucata: Listomucatas	asparayus rusi
Dasiulollycola. Usiollyceles	
Tillotiacoao	
l Incustis colchici	loaf smut
Onnycota	
Pythiales	
Pythiaceae	
Phytonhthora nalmivora	black rot
mitosporic fungi (Coelomycetes)	
Sphaeropsidales	
Sphaerioidaceae	
Phyllosticta allii	leaf blight
Septoria viridi-tingens	
, , , , , , , , , , , , , , , , , , ,	
Bacterium	
Enterobacteriaceae	
Erwinia chrysanthemi py. chrysanthemi	bacterial soft rot
Erwinia rhapontici	bacterial soft rot
Pseudomonadaceae	
Burkholderia cepacia	sour skin
Pseudomonas xanthochlora	-
Virus	
Garlic dwarf virus	-
Garlic mite-borne filamentous virus	-
Garlic mite-borne latent virus	-
Garlic virus A	-
Garlic virus X	-
Impatiens necrotic spot virus	-
Iris vellow spot virus	-
Onion mite-borne latent virus	-
Shallot mite-borne latent virus	-

Shallot virus X Shallot yellow stripe virus Sint-Jan's onion latent virus Tobacco rattle virus [strains not in New Zealand] Tomato black ring virus

Phytoplasma Aster yellows phytoplasma Garlic decline phytoplasma Onion yellows phytoplasma -_

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NON-REGULATED PESTS (non-actionable)

Insecta Coleoptera Curculionidae Listroderes difficilis Agrypnus variabilis Agrypnus variabilis Agrypnus variabilis Agrypnus variabilis Agrypnus variabilis Agrypnus variabilis Carapaphilus hemipterus Carapaphilus hemipterus Carapaphilus hemipterus Carapaphilus hemipterus Carapaphilus hemipterus Carbondia annulipes Caravaphilus hemipterus Carbondia annulipes Caravaphilus hemipterus Carbondia annulipes Caravaphilus hemipterus Caravaphil	Insect	
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Trichodoridae stubby root nematode Paratrichodorus minor stubby root nematode Secernentea rylenchida Tylenchida - Aphelenchidae - Aphelenchoididae - Aphelenchoididae - Aphelenchoididae - Aphelenchoididae - Aphelenchoides ritzemabosi foliar nematode	Dorulaimida	
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Aphelenchus avenae - Aphelenchoididae - Aphelenchoides ritzemabosi foliar nematode Hoplolaimidae -	Anhelenchidae	
Aphelenchoididae Aphelenchoides ritzemabosi foliar nematode Hoplolaimidae	Anhelenchus avenae	<u>_</u>
Aphelenchoides ritzemabosi foliar nematode Hoplolaimidae	Aphelenchoididae	-
Hoplolaimidae	Aphelenchoides ritzemahosi	foliar nematode
	Hoplolaimidae	

Helicotylenchus dihystera Helicotylenchus labiatus Malaidagunidaa	spiral nematode nematode
Meloidogynidae Meloidogyne hapla Meloidogyne incognita	northern root knot nematode
Meloidogyne incognita Meloidogyne javanica	Javanese root knot nematode
Pratylenchidae	
Pratylenchus crenatus	root lesion nematode
Tylenchidae	
Ditylenchus destructor	potato rot nematode
Ditylenchus dipsaci	stem and bulb nematode
Fungus	
Ascomycota	
Dotnideales Botryosphaeriaceae	
Botryosphaeria rhodina (anamorph Lasiodiplodia theobromae)	gummosis
Pleospora ellii (anamorph Stemphylium vesicarium)	black mould
Pleospora herbarum (anamorph Stemphylium herbarum)	black mould rot
Pleospora infectoria	black mould
Pleospora tarda (anamorph Stemphylium botryosum)	black mould
Hypocreaceae	
Gibberella acuminata (anamorph Fusarium acuminatum)	fusarium storage rot
Gibberella avenacea (anamorph Fusarium avenaceum)	fusarium stem canker
Gibberella fujikuroi (anamorph Fusarium fujikuroi)	fusarium rot
Gibberella subglutinans (anamorph Fusarium subglutinans)	fusarium rot
Nectria haematococca (anamorph Fusarium solani)	fusarium fruit rot
Leotiales	
Rotryotinia allii	neck rot
Botryotinia fuckeliana (anamorph Botrytis cinerea)	grey mould
Botryotinia squamosa (anamorph Botrytis squamosa)	botrytis leaf blight
Sclerotinia sclerotiorum	cottony rot
Phyllachorales	
Phyllachoraceae	anthraanaca
	anunachose
Saccharomycetales	
Dipodascaceae	
Dipodascus geotrichum (anamorph Geotrichum candidum)	sour rot
Saccharomycetaceae	
Kluyveromyces marxianus	yeast soft rot
DasiululliyCold: DasiululliyCeles Coratobasidialos	
Ceratobasidiaceae	
Thanatephorus cucumeris (anamorph Rhizoctonia solani)	rhizoctonia rot
Stereales	
Atheliaceae	
Athelia rolfsii (anamorph Sclerotium rolfsii)	Rolf's disease
Basidiomycota: Teliomycetes	
Pucciniaceae	
Puccinia allii	rust
Basidiomycota: Ustomycetes	
Platygloeales	
Platygloeaceae	
Helicobasidium purpureum (anamorph Rhizoctonia crocorum)	violet root rot

Ustilaginales Tilletiaceae Urocystis magica Oomycota Peronosporales Peronosporaceae Peronospora destructor Pythiales Pythiaceae Phytophthora cactorum Phytophthora cinnamomi Phytophthora cryptogea Phytophthora drechsleri Phytophthora erythroseptica Phytophthora nicotianae Phytophthora porri Pythium afertile Pythium coloratum Pythium intermedium Pythium irregulare Pythium paroecandrum Pythium rostratum Pythium spinosum Pythium ultimum Pythium vexans (anamorph Stemphylium botryosum) Zygomycota: Zygomycetes Mucorales Mucoraceae Rhizopus microsporus Rhizopus oryzae Rhizopus stolonifer mitosporic fungi (Agonomycetes) Agonomycetales unknown Agonomycetales Sclerotium cepivorum mitosporic fungi (Coelomycetes) **Sphaeropsidales** Sphaerioidaceae Macrophomina phaseolina Phoma destructiva Phoma exigua Pyrenochaeta terrestris unknown Coelomycetes unknown Coelomycetes Colletotrichum circinans Colletotrichum dematium mitosporic fungi (Hyphomycetes) Hyphomycetales Dematiaceae Alternaria alternata Alternaria porri Alternaria tenuissima Cercospora duddiae Cladosporium allii Cochliobolus geniculatus Embellisia allii Stemphylium lycopersici Thielaviopsis basicola Moniliaceae

onion smut onion downy mildew phytophthora crown and root rot phytophthora crown and root rot pink rot pink rot buckeye rot white leaf spot pythium root rot pythium root rot root rot pythium root and stem rot pythium root and stem rot root rot pythium root rot leak pythium root rot mushy rot wet rot rhizopus soft rot white rot ashy stem blight bulb rot phoma rot pink root rot smudge anthracnose black stalk rot alternaria blight alternaria mould leaf spot leaf blotch leaf spot bulb canker stemphylium fruit spot

blast

black root rot

Botrytis tulipae

Cylindrocladiella parva root rot	
Tuberculariales	
luberculariaceae	
Fusarium culmorum	dry rot
Fusarium oxysporum	leaf spot
<i>Fusarium oxysporum</i> f. sp. <i>cepae</i>	fusarium rot
Fusarium poae	fusarium rot
Bacterium	
Enterobacteriaceae	
Erwinia carotovora subsp. atroseptica	bacterial soft rot
Erwinia carotovora subsp. carotovora	bacterial soft rot
Erwinia herbicola	purple stain
Pectobacterium carotovorum	bacterial soft rot
Pseudomonadaceae	
Burkholderia gladioli pv. alliicola	bacterial soft rot
Pseudomonas aeruginosa	-
Pseudomonas cichorii	bacterial leaf spot
Pseudomonas fluorescens	pink eye
Pseudomonas marginalis	bacterial spot
Pseudomonas marginalis pv. marginalis	leaf spot
Pseudomonas syringae	bacterial blast
Pseudomonas syringae pv. porri	-
Pseudomonas syringae pv. syringae	bacterial soft rot
Pseudomonas viridiflava	leaf blight
Ralstonia solanacearum (Race 1)	bacterial wilt
Virus	
Cucumber mosaic virus	-
Garlic common latent virus	-
Garlic mosaic virus	-
Garlic virus B	-
Garlic virus C	-
Garlic virus D	-
Leek vellow stripe virus	-
Onion yellow dwarf virus	-
Shallot latent virus	-
Strawberry latent ringspot virus	-
Tobacco mosaic virus	-
Tobacco necrosis virus	-

-

Tobacco rattle virus [Paeonia and Narcissus infecting strains]

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

GENERAL CONDITIONS:

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

Quarantine Pests: Frankliniella occidentalis, Liriomyza spp.

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

A. For Whole Plants: PEQ: Level 2 Minimum Period: 3 months Additional Declaration:

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

B. For Dormant Bulbs: OPTION 1: No import permit is required. PEQ: None Additional Declaration(s):

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

"In addition to inspection of the dormant bulbs prior to shipment, the imported bulbs meet the requirements of the NAKtuinbouw Elite (Class SEE or EE) or Select (Class A or E) [choose one] bulb certification scheme."

OR

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

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

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

C. For Tissue Cultures:

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

GENERAL CONDITIONS:

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

Quarantine Pests: Chrysomyxa ledi, Microsphaeria spp.

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

A. For Whole Plants:

PEQ:Level 2Minimum Period:3 monthsAdditional Declarations:

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

OR

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

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

B. For Tissue Cultures:

Anemone

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

GENERAL CONDITIONS:

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

Quarantine Pests: Uredinales

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

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

B. For Dormant Bulbs:

OPTION 1: No import permit is required. PEQ: None Additional Declaration(s):

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

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

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

GENERAL CONDITIONS:

Countries: All

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

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

B. For Plants in Tissue Culture:

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

GENERAL CONDITIONS:

Countries: All

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

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

A. For Whole Plants:

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

Additional Declaration:

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

Special Conditions:

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

QUARANTINE AQUARIUM

MAF Registration Number: Name of Quarantine Operator:

- ii) the aquarium must be placed in a watertight tray, the bottom of which must contain a dilute solution of copper sulphate (5 parts per million or a small grain of a copper sulphate crystal in a litre of water);
- iii) must be inside a building which can be secured;
- iv) must be at least 5m away from a non-quarantine aquarium.

B. <u>For Tissue Cultures:</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 *Arbutus*", and are additional to those specified in sections 1, 2 and 3 of the import health standard.

GENERAL CONDITIONS:

Countries: All

Quarantine Pests: *Phytophthora ramorum*

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

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

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

GENERAL CONDITIONS:

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

Quarantine Pests: Gymnosporangium clavipes, Gymnosporangium globosum

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

For Whole Plants and Tissue Culture:

Option 1

PEQ:	Level 2
Minimum Period:	6 months

Additional Declarations:

- 1. "Gymnosporangium clavipes and Gymnosporangium globosum are not known to occur on _____(host species being imported) _____ in ____ (the country or state in which the plants were grown) _____".
- 2. "The plants have been dipped in propiconazole at the rate of 0.5g a.i. per litre of water, prior to export".

OPTION 2:

PEQ:Level 3Minimum Period:3 months

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

GENERAL CONDITIONS:

Countries: All

Quarantine Pests: Virus diseases

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

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

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

OPTION 1:

No import permit is required. PEQ: None Additional Declaration(s):

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

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

C. For Dormant Bulbs from Countries <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:

Countries: All

Quarantine Pests: Puccinia asparagi; virus diseases

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

For Whole Plants and Tissue Culture:

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

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

GENERAL CONDITIONS:

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

Quarantine Pests: Aster yellows phytoplasma, Uredinales

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

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

B. For Tissue Cultures:

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

Additional Declaration:

"The cultures have been derived from parent stock tested or inspected and found free of Aster yellows phytoplasma".

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

GENERAL CONDITIONS:

Countries: All

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

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

B. For Plants in Tissue Culture:

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:

Countries: All

Quarantine Pests: Virus diseases

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

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

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

OPTION 1:

No import permit is required. PEQ: None Additional Declaration(s):

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

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

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

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

OPTION 2: PEQ: Level 1 **Minimum Period:** 3 months C. For Dormant Bulbs from Countries <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 hulbs in this as

"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:

Countries: All

Quarantine Pests: Uredinales

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

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

Additional Declarations:

- 1. "The plants were inspected during the previous growing season and no rust diseases were detected".
- 2. "The plants have been dipped in propiconazole at the rate of 0.5g a.i. per litre of water".

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

GENERAL CONDITIONS:

Countries: All

Quarantine Pests: Xylella fastidiosa

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

A. For Cuttings and Whole Plants from All Countries except Argentina, Belize, the Caribbean Islands, Costa Rica, El Salvador, Guatemala, Honduras, Mexico, Nicaragua, Panama, Peru, United States of America, Venezuela and Yugoslavia:
PEQ: Level 2
Minimum Period: 3 months
Additional Declaration(s):
1. "The plants have been dipped in Furalaxyl at the rate of 0.25g a.i. per litre of water".
2. "The plants have been sourced from a "Pest free area", free from *Xylella fastidiosa*".

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

GENERAL CONDITIONS:

Countries: All except Australia and Italy

Quarantine Pests: Demyrsus meleoides

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

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

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

B. For Plants in Tissue Culture:

Calanthe

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

GENERAL CONDITIONS:

Countries: All

Quarantine Pests: Uredinales, Tetranychus kanzawai

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

A. For Whole Plants:

PEQ: Level 2

Minimum Period: 1 year

Additional Declarations:

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

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

B. For Tissue Cultures:

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

GENERAL CONDITIONS:

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

Quarantine Pests: Phytophthora ramorum; Tetranychus kanzawai

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

A. For Cuttings and Whole Plants from Australia and Canada (these commodities may only be imported from these countries):

PEQ: Level 2 Minimum Period: 3 months

Additional Declarations:

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

2. "The plants have been sourced from a "Pest free area", free from *Phytophthora ramorum*".

Special Condition: All visible flower buds are to be removed prior to export.

B. For Tissue Cultures:

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:

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

Quarantine Pests: *Exobasidium vexans*; Phloem necrosis; *Phytophthora ramorum*; *Tetranychus kanzawai*.

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

For Whole Plants and Tissue Culture:

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

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

GENERAL CONDITIONS:

Countries: All

Quarantine Pests: Virus diseases; Xylella fastidiosa

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

A. For Whole Plants from All Countries except Argentina, Belize, the Caribbean Islands, Costa Rica, El Salvador, Guatemala, Honduras, Mexico, Nicaragua, Panama, Peru, United States of America, Venezuela and Yugoslavia:
PEQ: Level 2
Minimum Period: 6 months
Additional Declaration(s):
"The plants have been sourced from a "Pest free area", free from *Xylella fastidiosa*".

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

OPTION 1: No import permit is required. PEQ: None Additional Declaration(s):

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

2. "The plants have been sourced from a "Pest free area", free from Xylella fastidiosa".

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

OPTION 1:

PEQ: Level 1 **Minimum Period:** 3 months **Additional Declaration(s):**

"The dormant bulbs in this consignment have been:

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

AND

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

AND

sourced from a "Pest free area", free from *Xylella fastidiosa*".

OPTION 2:

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

D. For Tissue Cultures from All Countries:

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

Additional Declaration:

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

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

GENERAL CONDITIONS:

Countries: All

Quarantine Pests: Papaya mosaic virus, Papaya ringspot virus

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

OPTION 1:

A. For Whole Plants:

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

Additional Declaration:

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

B. For Tissue Cultures:

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

PLUS:

Additional Declaration:

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

OPTION 2:

For Whole Plants and Tissue Cultures:

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

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:

Countries: All

Quarantine Pests:

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

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

Additional Declaration:

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

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

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

GENERAL CONDITIONS:

Countries:	Australia, USA
Quarantine Pests:	Fusicladium effusum, Pecan bunch
Entry Conditions:	Basic; with variations and additional conditions as specified below:

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

Additional Declaration:

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

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

GENERAL CONDITIONS:

Countries: All

Quarantine Pests: Cryphonectria parasitica;

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

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

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

OPTION 2:

PEQ:Level 3Minimum Period:6 months

B. For Tissue Cultures from All Countries:

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

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

GENERAL CONDITIONS:

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

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

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

For Whole Plants (dormant) and Cuttings (dormant) and Tissue Culture:PEQ:Level 3Minimum Period:3 months

Additional Declaration:

1. "The plants have been sourced from a "Pest free area", free from *Xylella fastidiosa*".

2. "Cryphonectria parasitica and Ceratocystis fagacearum are not known to occur in ________".

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."

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

GENERAL CONDITIONS:

Countries: All

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

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

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

B. For Tissue Cultures:

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

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

GENERAL CONDITIONS:

Countries: All

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

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

A. For Whole Plants: PEQ: Level 2 Minimum Period: 3 months Additional Declaration:

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

B. For Tissue Cultures:

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

Additional Declaration:

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

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

2. Pests of Citrus

Refer to the pest list.

3. Entry conditions for:

3.1 Citrus cuttings from offshore MAF-accredited facilities (quarantine stations)

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

(i) *Documentation*

Import permit is required

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

(ii) Inspection, Testing and Treatments of the consignment

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

(iii) *Phytosanitary requirements*

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

The Citrus cuttings have been:

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

AND

sourced from either mother plants that have been kept in insect proof plant houses or from open ground mother plants

AND

- held and tested for/classified free from specified regulated pests at a MAFaccredited facility

AND

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

If satisfied that the pre-shipment activities have been undertaken, the exporting country

NPPO must confirm this by providing the following additional declarations to the phytosanitary certificate:

"The *Citrus* cuttings in this consignment have been:

- inspected in accordance with appropriate official procedures and found to be free of any visually detectable regulated pests specified by MAF, and to conform with New Zealand's current phytosanitary requirements.

AND

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

AND

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

AND

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

(v) *Post-entry quarantine*

PEQ: Level 2

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

3.2 Citrus cuttings from non-accredited facilities in any country

(i) *Documentation*

Import permit is required

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

(ii) *Phytosanitary requirements*

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

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

(iii) Additional declarations to the phytosanitary certificate

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

"The *Citrus* cuttings in this consignment have been:

inspected in accordance with appropriate official procedures and found to be free of any visually detectable regulated pests specified by MAF, and to conform with the current phytosanitary requirements of MAF."

(iv) Inspection, Testing and Treatments of the consignment

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

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

(v) *Post-entry quarantine*

PEQ: Level 3

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

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

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

(i) *Documentation*

Import permit is required

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

(ii) <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 MAF and the accredited facility operator. Refer to *Citrus* Inspection, Testing and Treatment Requirements following the *Citrus* pest list.

(iv) *Phytosanitary requirements*

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

The *Citrus* tissue culture have been:

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

AND

held and tested for/classified free from specified regulated pests at a MAF-

accredited facility

AND

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

(v) <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 MAF, and to conform with New Zealand's current phytosanitary requirements.

AND

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

AND

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

(vi) Post-entry quarantine

PEQ: Level 2

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

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

(i) *Documentation*

Import permit is required

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

(ii) <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) *Phytosanitary requirements*

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

The *Citrus* tissue culture have been:

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

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

"The *Citrus* tissue culture in this consignment have been:

inspected in accordance with appropriate official procedures and found to be free of any visually detectable regulated pests specified by MAF, and to conform with the current phytosanitary requirements of MAF."

(v) Inspection, Testing and Treatments of the consignment

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

(vi) Post-entry quarantine

PEQ: Level 3

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

Pest List for Citrus

REGULATED PESTS (actionable)

Insect Insecta Coleoptera **Bostrichidae** Apate indistincta Apate terebrans **Buprestidae** Agrilus alesi Agrilus auriventris Cerambycidae Anoplophora malasiaca Chelidonium gibbicolle Dihammus vastator Melanauster chinensis Paradisterna plumifera Promeces linearis Skeletodes tetrops Strongylurus thoracicus Uracanthus cryptophagus Chrysomelidae Colasposoma fulgidum Colasposoma scutellare Geloptera porosa Luperomorpha funesta Monolepta australis Sebaethe fulvipennis 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 Dereodus recticollis Diaprepes abbreviatus Diaprepes spp. Eutinophaea bicristata Leptopius squalidus Naupactus xanthographus Otiorhynchus cribricollis Pachnaeus citri Pachnaeus litus Perperus lateralis

shot-hole borer shot-hole borer

flatheaded citrus borer citrus flatheaded borer

white-spotted longicorn beetle

fig longhorn

speckled longicorn

longhorn beetle pittosporum longicorn citrus branch borer

bluegreen citrus nibbler

pitted apple beetle mulberry flea beetle red-shouldered leaf beetle flea beetle

fruit tree weevil cribrate weevil citrus root weevil

white-striped weevil

Prepodes spp. Protostrophus avidus Sciobius marshalli Sympiezomias lewisi Lucanidae Prosopocoilus spencei Scarabaeidae Hypopholis indistincta Maladera matrida Scolytidae Salagena sp. Xylosandrus germanus Diptera Cecidomyiidae Contarinia citri Contarinia okadai Trisopsis sp. Chamaemyiidae Leucopis alticeps [Animals Biosecurity] Drosophilidae Drosophila paulistorum Drosophila pseudoobscura Drosophila simulans Drosophila willistoni Tephritidae Dirioxa pornia Hemiptera Anthocoridae Orius thripoborus [Animals Biosecurity] Thriphleps thripoborus [Animals Biosecurity] Coreidae Acanthocoris striicornis Anoplocnemis curvipes Leptoglossus membranaceus Mictis profana Paradasynus spinosus Veneza phyllopus Lygaeidae Nysius vinitor Miridae Austropeplus sp. Pentatomidae Antestia variegata Antestiopsis orbitalis Antestiopsis variegata Biprorulus bibax Glaucias subpunctatus Halyomorpha mista Musgraveia sulciventris Plautia stali Rhynchocoris humeralis **Unknown Hemiptera** Holopterna vulga Homoptera Aleyrodidae Aleurocanthus citriperdus Aleurocanthus spiniferus Aleurocanthus spp. Aleurocanthus woglumi Aleurodicus dispersus

weevil citrus snout beetle scarab beetle scarab beetle alnus ambrosia beetle leafcurling midge citrus flower gall midge island fruit fly larger squash bug coreid bug coreid bug crusader bug squash bug leaf-footed bug Rutherglen bug citrus blossom bug antestia bug antestia bug spined citrus bug polished green stink bug brown-marmorated stink bug bronze orange bug oriental stink bug pentatomid bug bug whitefly orange spiny whitefly whiteflies citrus blackfly spiralling whitefly

Aleurolobus marlatti 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

Marlatt whitefly 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 yellow scale Florida red scale brown scale dictyospermum scale false purple scale

Ischnaspis longirostris 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]

black thread scale 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

Eretmocerus serius [Animals Biosecurity]	-
Marietta connecta [Animals Biosecurity]	-
Marietta leopardina [Animals Biosecurity]	-
Braconidae	
Apanteles aristotalliae (Animais Biosecurity)	-
Biosteres iongicaudatus [Animais Biosecurity]	-
Photelesor ornigis (Animais Biosecurity)	-
Anicotus honoficus [Animals Dissocurity]	
Anicelus benencus [Animals Diosecunity]	-
Compenenta phasciala [Annihais Diosecunity] Habrolonis rouvi[Animals Biosocurity]	-
Lentomastiv dactulonii [Animals Biosecurity]	- narasitic wasn
Metanbycus helvolus [Animals Biosecurity]	
Metaphycus luteolus [Animals Biosecurity]	-
Metaphycus stanlevi [Animals Biosecurity]	-
Metaphycus varius [Animals Biosecurity]	-
Psyllaenhagus nulvinatus [Animals Biosecurity]	-
Fulophidae	
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
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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

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 hardenbergi Eumeta japonica Eumeta minuscula Eumeta moddermanni Hyalarcta huebneri Pyralidae Apomyelois ceratoniae Tortricidae Adoxophyes sp. Amorbia cuneana Archips argyrospilus Archips machlopis Archips occidentalis Archips rosanus Argyrotaenia citrana Cacoecimorpha pronubana Cryptophlebia batrachopa Cryptophlebia leucotreta Homona magnanima Isotenes miserana Platynota stultana Tortrix capensana **Yponomeutidae** Prays citri Prays parilis Neuroptera Chrysopidae Chrysopa oculata [Animals Biosecurity] Coniopterygidae Coniopteryx vicina [Animals Biosecurity] Conwentzia barretti [Animals Biosecurity] Orthoptera Acrididae Zonocerus elegans Gryllidae Ornebius kanetataki Tettigoniidae Caedicia sp. Holochlora japonica Microcentrum retinerve Scudderia furcata Psocoptera Archipsocidae Archipsocus sp. Thysanoptera Aeolothripidae Franklinothrips vespiformis [Animals Biosecurity] Thripidae Chaetanaphothrips orchidii Leptothrips mali Scirtothrips aurantii Scirtothrips citri Scirtothrips dorsalis Scirtothrips mangiferae Scolothrips sexmaculatus [Animals Biosecurity] Taeniothrips kellyanus Taeniothrips sp. Thrips coloratus Thrips flavus Thrips palmi

tea bagworm leaf case moth date pyralid leafroller fruit tree leafroller leafroller leafroller rose leafroller orange tortrix carnation leafroller false codling moth oriental tea tortrix orange fruitborer omnivorous leafroller tortricid moth citrus flower moth citrus flower moth elegant grasshopper cricket Japanese broadwinged katydid smaller angular-winged katydid fork-tailed bush katydid bark louse banana rust thrips black hunter thrips citrus thrips citrus thrips chilli thrips mango thrips thrips flower thrips

palm thrips

Unknown Insecta

Unknown Insecta

Cosmophyllum pallidulum

Mite Arachnida Acarina Acaridae *Thyreophagus entomophagus italicus* [Animals Biosecurity] Anystidae Anystis agilis [Animals Biosecurity] Eriophyidae Aculops pelekassi eriophyid mite Tegolophus australis brown citrus mite Phytoseiidae Amblyseius addoensis [Animals Biosecurity] Amblyseius citri [Animals Biosecurity] Amblyseius swirskii [Animals Biosecurity] Euseius hibisci [Animals Biosecurity] Euseius scutalis [Animals Biosecurity] Euseius stipulatus [Animals Biosecurity] Euseius tularensis [Animals Biosecurity] Iphiseius degenerans [Animals Biosecurity] predatory mite Typhlodromus athiasae [Animals Biosecurity] Stigmaeidae Agistemus africanus [Animals Biosecurity] Agistemus tranatalensis [Animals Biosecurity] Eryngiopus siculus [Animals Biosecurity] Tarsonemidae Tarsonemus cryptocephalus [Animals Biosecurity] Tenuipalpidae false spider mite Brevipalpus chilensis Brevipalpus lewisi bunch mite privet mite Brevipalpus obovatus 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 Eutetranychus orientalis pear leaf blister mite Oligonychus mangiferus mango spider mite Tetranychus kanzawai kanzawa mite Tuckerellidae Tuckerella knorri hawthorn spider mite Spider Arachnida Araneae Clubionidae Cheiracanthium mildei [Animals Biosecurity] Theridiidae Theridion sp. [Animals Biosecurity]

Mollusc Gastropoda

Stylommatophora Achatinidae	
Achatina immaculata	-
Lissachatina immaculata	snail
Bradybaenidae	
Acusta despecta stedololana	snall
Subulinidae	onoll
Rumina decollata	snali
UTULYLIUS HAVESLEHS Trocyclus kirkii	-
	-
Fungus	
Ascomycota	
Diaporthales	
Valsaceae	
<i>Diaporthe rudis</i> (anamorph <i>Phomopsis rudis</i>)	phomopsis canker
Dothideales	
Elsinoaceae	
Elsinoe australis	sweet orange scab
Capnodiaceae	
Capnodium citri	sooty mould
Didymosphaeriaceae	
<i>Didymosphaeria</i> sp.	
Mycosphaerellaceae	
Guignardia citricarpa (anamorph Phyllosticta citricarpa) [black	citrus black spot
spot strain]	
<i>Mycosphaerella citri</i> (anamorph <i>Stenella citri-grisea</i>)	rind blotch
Mycosphaerella horii	greasy spot
Patellariales	
Patellariaceae	
Rhytidhysteron rufulum	
Saccharomycetales	
Saccharomycetaceae	
Debaryomyces hansenii	-
Galactomyces citri-aurantii (anamorph Geotrichum citri-	sour rot
aurantii)	
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	mai secco
Phomopsis sp.	rot
Septoria spp.	
Sphaeropsis tumetaciens	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]	
<i>Isaria</i> sp. [Animals Biosecurity]	-
Oidium tingitaninum	powdery mildew
Sporobolomyces roseus	
Stenella sn	
Zvaomycota: Zvaomycetes	
Glomales	
Glomaceae	
Clonus atunicatum [Animals Biosocurity]	
Mucoralos	
Sunconhalastração	
Syncephalastrateae	
Syncephalastrum facemosum	
Desterium	
Bactenum	
Bacterium family unknown	
Liberobacter africanum	citrus greening bacterium
Liberobacter asiaticum	citrus greening bacterium
<i>Liberobacter</i> sp.	citrus greening bacterium
Spiroplasma citri	citrus stubborn
Pseudomonadaceae	
Burkholderia cepacia	sour skin
<i>Xanthomonas axonopodis</i> pv. <i>citri</i>	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
5	5
Virus	
Indian citrus mosaic badnavirus	-
citrus cachexia viroid	-
citrus chlorotic dwarf	-
citrus infectious varienation ilarvirus	_
citrus infectious variegation ilarvirus [crinkly leaf strain]	_
citrus laaf rugosa ilanvirus	
citrus loathory loaf virus	-
citrus loprosis rhabdovirus	-
citrus reprosis ritabuovillus	-
citrus ringenet virus	-
citrus tattor leef eenillevirus	-
citius idilei iedi capiliovilus	-
citrus insieza ciosierovirus (strains not in New Zealand)	-
	-
citrus viroias (groups I-IV)	-
citrus yeilow mosaic badnavirus	-
citrus yellow mottle virus	-
dwarting factor viroid	-
navel orange infectious mottling virus	-

	satsuma dwarf nepovirus satsuma dwarf nepovirus [Natsudaidai dwarf strain] xyloporosis viroid yellow vein clearing of lemon	-
Phyt	onlasma	
i iiye	<i>Candidatus</i> Phytoplasma aurantifolia rubbery wood	witches' broom phytoplasma -
Disea	ase 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	-

NON-REGULATED PESTS (non-actionable)

Insect Insecta Coleoptera Anthribidae Araecerus fasciculatus Cerambycidae Oemona hirta Coccinellidae Cryptolaemus montrouzieri Rodolia cardinalis [Animals Biosecurity] Curculionidae Asynonychus cervinus Listroderes obliquus Maleuterpes spinipes Phlyctinus callosus Scarabaeidae Costelytra zealandica Diptera Cryptochaetidae Cryptochetum iceryae [Animals Biosecurity] Drosophilidae Drosophila melanogaster Hemiptera Pentatomidae Nezara viridula Homoptera Aleyrodidae Orchamoplatus citri Aphididae Aphis craccivora Aphis gossypii Aphis nerii Aphis spiraecola Macrosiphum euphorbiae Myzus cerasi Myzus persicae Toxoptera aurantii Toxoptera citricida Coccidae Ceroplastes ceriferus Ceroplastes destructor Ceroplastes sinensis Coccus hesperidum Coccus longulus Saissetia coffeae Saissetia oleae Diaspididae Aonidiella aurantii Aspidiotus hederae Aspidiotus nerii Diaspis santali Lindingaspis rossi Lopholeucaspis japonica Parlatoria pergandii Pinnaspis aspidistrae Quadraspidiotus perniciosus

coffee bean weevil lemon tree borer mealybug destroyer Fuller's rose weevil vegetable weevil dicky rice weevil banded fruit weevil grass grub vinegar fly green vegetable bug Australian citrus whitefly cowpea aphid cotton aphid oleander aphid spirea aphid potato aphid black cherry aphid green peach aphid black citrus aphid brown citrus aphid Indian white wax scale white wax scale Chinese wax scale brown soft scale long brown scale hemispherical scale black scale California red scale oleander scale oleander scale scale Ross' black scale pear white scale chaff scale fern scale San Jose scale

Flatidae Siphanta acuta Margarodidae Icerya purchasi Pseudococcidae Planococcus citri Planococcus mali Pseudococcus calceolariae Pseudococcus longispinus Pseudococcus viburni Ricaniidae Scolypopa australis Hymenoptera Aphelinidae Aphytis chrysomphali [Animals Biosecurity] Encarsia citrina [Animals Biosecurity] Encarsia perniciosi [Animals Biosecurity] Encyrtidae Coccidoctonus dubius [Animals Biosecurity] Formicidae Linepithema humile [Animals Biosecurity] Pheidole megacephala [Animals Biosecurity] Lepidoptera Geometridae Pseudocoremia dejectaria Pseudocoremia suavis Hepialidae Aenetus virescens Noctuidae Helicoverpa armigera Spodoptera litura Oecophoridae Stathmopoda phlyegyra [Animals Biosecurity] Tortricidae Cnephasia jactatana Ctenopseustis obliguana Epalxiphora axenana Epiphyas postvittana Planotortrix excessana Orthoptera Tettigoniidae Caedicia simplex Thysanoptera Phlaeothripidae Nesothrips propinguus breviceps Thripidae Frankliniella occidentalis Heliothrips haemorrhoidalis Pezothrips kellyanus Thrips hawaiiensis Thrips obscuratus Thrips tabaci

Mite

Arachnida Acarina Eriophyidae Aceria sheldoni Phyllocoptruta oleivora Phytoseiidae green planthopper cottony cushion scale citrus mealybug citrophilus mealybug longtailed mealybug obscure mealybug passionvine hopper Argentine ant big-headed ant pine looper puriri moth tomato fruitworm cluster caterpillar black lyre leafroller brownheaded leafroller light brown apple moth greenheaded leafroller katydid western flower thrips greenhouse thrips Kelly's citrus thrips Hawaiian flower thrips

citrus bud mite citrus rust mite

onion thrips

New Zealand flower thrips

Phytoseiulus persimilis [Animals Biosecurity]	predatory mite
<i>Eryngiopus bifidus</i> [Animals Biosecurity]	-
larsonemidae	brood mito
Polyphayolaisonenius lalus Tenuinalnidae	broad mile
Brevipalpus californicus	bunch mite
Brevipalpus camernicus Brevipalpus phoenicis	passionvine mite
Tetranychidae	[
Eotetranychus sexmaculatus	sixspotted mite
Panonychus citri	citrus red mite
Tetranychus cinnabarinus	carmine spider mite
Tetranychus urticae	twospotted spider mite
Mollusc	
Castropoda	
Stylommatophora	
Helicidae	
Helix aspersa	common garden snail
Limacidae	Ū
Deroceras reticulatum	grey garden slug
Fungue	
Fungus	
Dianorthales	
Valsaceae	
Diaporthe citri (anamorph Phomopsis citri)	melanose
Diatrypales	
Diatrypaceae	
Eutypa lata	eutypa dieback
Dothideales	
Botryosphaeriaceae	
Bolryosphaeria doinidea (anamorph Fusicoccum aescuii)	canker
Cannodiaceae	yummosis
Capnodium salicinum	sooty mould
Elsinoaceae	
Elsinoe fawcettii (anamorph Sphaceloma fawcettii)	verrucosis
Mycosphaerellaceae	
<i>Guignardia citricarpa</i> (anamorph <i>Phyllosticta citricarpa</i>) [non- pathogenic strain]	latent skin infection
Mycosphaerella pinodes (anamorph Ascochyta pinodes)	mycosphaerella blight
Mycosphaerella tassiana (anamorph Cladosporium herbarum)	black leaf spot
Pleosporaceae	black mould rot
Hypocreales	DIACK ITIOUIU TOL
Hypocreaceae	
Gibberella baccata (anamorph Fusarium lateritium)	fusarium rot
Gibberella fujikuroi (anamorph Fusarium fujikuroi)	fusarium rot
Gibberella intricans (anamorph Fusarium equiseti)	root and stem dry rot
Nectria haematococca (anamorph Fusarium solani)	fusarium fruit rot
Leotiales	
Scieroliniaceae Ratruatinia fuekoliana (anomorph, Patrutic cinored)	arov mould
buli yulinia iuukeliatia (altamorph buli ylis ülitetea) Sclaratinia sclaratiorum	cottony rot
Phyliachorales	
Phyllachoraceae	
Glomerella cingulata (anamorph Colletotrichum	anthracnose
gloeosporioides)	
Saccharomycetales	

Dipodascaceae	
Dipodascus geotrichum (anamorph Geotrichum candidum)	sour rot
Endomycetaceae	
Endomyces aeotrichum	endomyces
Xvlariales	ondonijece
Xylariaceae	
Istulina deusta	coal fundus
Basidiomycota: Basidiomycetes	courrangas
Storoalos	
Hyphodormatacoao	
Fruthricium salmonicolor (anamornh Nocator docrotus)	nink disaasa
Mitosporio Eurori (Coolomycotos)	pilik uisease
Sphaorongidalog	
Lentestrometaceae	
Closedes namigene	cooty blotch
Gioeoues pornigena	Sooly blotch
Spnaerioidaceae	a a a a a huda wad
	ascocnyta rot
Lasiodipiodia theobromae	fruit and stem-end rot
Septoria citri	septoria spot
Mitosporic Fungi (Hyphomycetes)	
Hyphomycetales	
Dematiaceae	
Alternaria alternata	black stalk rot
Alternaria citri	alternaria rot
Alternaria hesperidearum	
Moniliaceae	
Aspergillus flavus	aspergillus storage rot
Aspergillus niger	aspergillus rot
Penicillium digitatum	green mould
Penicillium italicum	blue mould
Penicillium ulaiense	penicillium mould
Verticillium lecanii [Animals Biosecurity]	
Tuberculariales	
Tuberculariaceae	
Fusarium culmorum	dry rot
Fusarium oxysporum	leaf snot
Unknown Hynhomycetes	
Unknown Hyphomycetes	
Trichothocium rosoum	nink rot
Oomucota	pilik lut
Duthialoc	
Pyllidies	
Pylliacede Deutophthora citricolo	brown rot of fruit
Phylophinola chincola Deutophihora aitranethara	DIOWITIOL OF ITUIL
Phylophinora chrophinora	citrus prown rot
Phytophinora nibernalis	citrus brown rot
Phytophinora nicotianae var. parasitica	collar and root rot
Zygomycota: Zygomycetes	
Mucorales	
Mucoraceae	
Rhizopus stolonifer	rhizopus soft rot
Bacterium	
Pseudomonadaceae	
Pseudomonas corrugata	tomato pith necrosis
Pseudomonas fluorescens	pink eye
Pseudomonas syrinaae	bacterial blast
Pseudomonas syrinaae pv. syrinaae	bacterial soft rot
Virus	

-

citrus enation - woody gall luteovirus

citrus exocortis viroid-citrus psorosis A-citrus psorosis B-citrus tristeza closterovirus [seedling yellows, decline, and-stem pitting strains (except Hassuku dwarf, Capao Bonito, and-Queensland and South African orange stem pitting strains)]-hop stunt viroid-

Inspection, Testing and Treatment Requirements for Citrus*

ORGANISM TYPES	MAF 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
Emmonia	conditions).
Fungus Restarium	Country freedom OR growing season inspection for symptom expression.
Burkholdaria canacia	Growing space inspection for symptom expression
Liberobacter africanum	Growing season inspection for symptom expression.
Liberobacter asiaticum	Country freedom OR graft-inoculated sweet oranges, orange pineapple, 18 to 25%.
	Country freedom OR graft-inoculated sweet oranges, orange pineapple, 18 to 25°C.
Spiropiasma 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°C) and
	incubate cultures at 32°C.
Xanthomonas axonopodis pv. citri	Country freedom/shoot tip grafting bioassay/detached leaf bioassay/ PCR OR suitable citrus indicator.
Xanthomonas campestris	Country freedom/shoot tip grafting bioassay/detached leaf bioassay/ PCR OR suitable citrus
pv. aurantifolii	indicator.
Xanthomonas campestris	Country freedom/shoot tip grafting bioassay/detached leaf bioassay/ PCR OR suitable citrus
pv. curumeto Vylalla fastidiosa	Indicator.
Xylella fastidiosa py citri	Country freedom/shoot tip grafting bioassay/ PCR/ELISA OR suitable citrus indicator
Virus	Country freedom shoot up granning broassay recontinion or surfable childs indicator.
citrus chlorotic dwarf	Country freedom OR graft inoculated rough lemon at cool temperatures temperatures 18 to
	25°C
citrus infectious variegation	Country freedom OR graft inoculated citron, sour orange, lemon, cidro etrog. Grow indicators at
ilarvirus	cool temperatures 18 to 25° C.
citrus infectious variegation	Country freedom OR graft inoculated citron, sour orange, lemon, cidro etrog. Grow indicators at
ilarvirus [crinkly leaf strain]	cool temperatures 18 to 25°C
citrus leaf rugose ilarvirus	Country freedom OR graft inoculated Mexican lime or sour orange. Grow indicators at cool
e e e e e e e e e e e e e e e e e e e	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
1	(Trover). Grow indicators at cool temperatures 18 to 25°C.
citrus tristeza closterovirus	Country freedom OR ELISA, graft inoculated Mexican lime, sour orange and <i>Citrus excelsa</i> .
[strains not in New Zealand]	Grow indicators at cool temperatures 18 to 25°C.
citrus yellow mosaic	Country freedom OR graft inoculated sweet orange, sour orange and citron.
badnavirus	
citrus yellow mottle virus	Country freedom OR other suitable test.
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 temperatures 18 to
mottling virus	25°C.
satsuma dwarf nepovirus	Country freedom OR graft inoculated satsums. Grow indicators at cool temperatures 18 to
	25°C.

ORGANISM TYPES	MAF ACCEPTABLE METHODS
satsuma dwarf nepovirus	Country freedom OR graft inoculated satsums. Grow indicators at cool temperatures 18 to
[Natsudaidai dwarf strain]	25°C.
yellow vein clearing of	Country freedom OR graft inoculated Mexican lime or sour orange. Grow indicators at cool
lemon	temperatures 18 to 25°C.
Viroid	
citrus cachexia viroid	Country freedom OR SPAGE and PCR on graft inoculated citron extract. Grow citron at hot
	temperature 27 to 32°C.
citrus variable viroid	Country freedom OR SPAGE and PCR on graft inoculated citron extract. Grow citron at hot
	temperature 27 to 32°C.
citrus viroids (groups I-IV)	Country freedom OR SPAGE and PCR on graft inoculated citron extract. Grow citron at hot
	temperature 27 to 32°C.
dwarfing factor viroid	Country freedom OR SPAGE and PCR on graft inoculated citron extract. Grow citron at hot
-	temperature 27 to 32°C.
xyloporosis viroid	Country freedom OR SPAGE and PCR on graft inoculated citron extract or mandarin (Parson's
	Special). Grow Citron at hot temperature 27 to 32°C.
Disease of unknown	
aetiology	
Australian citrus dieback	Country freedom OR other suitable test
blind pocket	Country freedom OR graft inoculated dweet tangor, sweet orange or Citrus excelsa. Grow
	indicators at cool temperatures 18 to 25°C.
bud union disease	Country freedom OR other suitable test
citrus blight disease	None (cuttings collected from blight free area). Inspect source tree after 2 years before releasing from quarantine.
citrus fatal vellows	Country freedom OR graft inoculated <i>Citrus macrophylla</i> .
citrus impietratura disease	Country freedom OR graft inoculated dweet tangor or sweet orange. Growth indicators at cool
1	temperatures 18 to 25°C.
citrus sunken vein disease	Country freedom OR other suitable test.
concave gum	Country freedom OR graft inoculated dweet tangor, sweet orange or <i>Citrus excelsa</i> . Grow
	indicators at cool temperatures 18 to 25°C.
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
8 <i>j</i>	27 to 32°C
kassala disease	Country freedom, cuttings collected from kassala free area.
lemon sieve tube necrosis	Country freedom OR other suitable test.
shell bark of lemons	Country freedom OR other suitable test.
zonate chlorosis	Country freedom, cuttings collected from kassala free area.
Phytoplasma	
Candidatus phytoplasma	Country freedom OR graft inoculated lime. Grow indicators at cool temperatures 18 to 25°C.
aurantifolia	
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 an individual plantlet or cutting. Each single plantlet and cutting must be labelled individually and tested separately.
- 2. With prior notification, MAF will accept other internationally recognised testing methods.

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

GENERAL CONDITIONS:

Countries: All

Quarantine Pests: Virus diseases

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

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

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

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

GENERAL CONDITIONS:

Countries:AllQuarantine Pests:Pratylenchus convallariaeEntry Conditions:Basic; with variations and additional conditions as specified below:PEQ:Level 2

Minimum Period: 3 months

Additional Declaration:

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

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

GENERAL CONDITIONS:

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

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

For Whole Plants and Tissue Culture:

PEQ:	Level 3
Minimum Period:	3 months

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

GENERAL CONDITIONS:

Countries: All

Quarantine Pests: Gymnosporangium spp.; Xylella fastidiosa

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

A. For Cuttings and Whole Plants from All Countries except Argentina, Belize, the Caribbean Islands, Costa Rica, El Salvador, Guatemala, Honduras, Mexico, Nicaragua, Panama, Peru, United States of America, Venezuela and Yugoslavia: PEQ: Level 2 Minimum Period: 3 months Additional Declarations: 1. "*Gymnosporangium* spp. are not known to occur on ______(name of plant species) ______ in _____(the country or state where the plants were produced) ______".

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

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

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

B. For Plants in Tissue Culture from All Countries:

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

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

GENERAL CONDITIONS:

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

Quarantine Pests: Gymnosporangium clavipes, Gymnosporangium globosum

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

A. For Whole Plants:

Option 1

PEQ:	Level 2
Minimum Period:	6 months

Additional Declarations:

- 1. "Gymnosporangium clavipes and Gymnosporangium globosum are not known to occur on _____(host species being imported) _____ in ____ (the country or state in which the plants were grown) _____".
- 2. "The plants have been dipped in propiconazole at the rate of 0.5g a.i. per litre of water, prior to export".

OPTION 2:

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

B. For Tissue Cultures:

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

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

GENERAL CONDITIONS:

Countries: All

Quarantine Pests: Frankliniella occidentalis; virus diseases

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

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

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

OPTION 1:

No import permit is required. PEQ: None Additional Declaration(s):

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

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

C. For Dormant Bulbs from Countries <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."

Biosecurity New Zealand Standard 155.02.06: Importation of Nursery Stock

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

GENERAL CONDITIONS:

Countries: All

Quarantine Pests: Frankliniella occidentalis; virus diseases

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

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

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

OPTION 1:

No import permit is required. PEQ: None Additional Declaration(s):

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

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

OR

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

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

OPTION 2: PEQ: Level 1 Minimum Period: 3 months C. For Dormant Bulbs from Countries <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 hulbs in this as

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

GENERAL CONDITIONS:

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

Quarantine Pests: Aulacaspis yasumatsui, Demyrsus meleoides.

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

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

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

B. For Plants in Tissue Culture:

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

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

GENERAL CONDITIONS:

Countries: All

Quarantine Pests: Phymatotrichopsis omnivora; Tetranychus kanzawai; Uredinales

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

A. For Whole Plants PEQ: Level 2 Minimum Period: 3 months Additional Declarations:

"Rust diseases are not known to occur on *Dahlia* in _ (the country in which the plants were grown) _".
 "The plants have been dipped prior to export in dicofol at the rate of 0.7g a.i. per litre of water".

B. For Dormant Bulbs from Australia, Austria, Belgium, Canada, Denmark, Finland, France, Germany, Greece, Ireland, Israel, Italy, Luxembourg, The Netherlands, Portugal, South Africa, Spain, Sweden, United Kingdom: OPTION 1:

No import permit is required.

PEQ: None

Additional Declaration(s):

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

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

OR

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

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

OPTION 2:

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

C. For Dormant Bulbs from the USA:

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

PEQ: None or Level 2 (see below)

Additional Declaration(s):

1. "In addition to inspection of dormant bulbs prior to shipment, the crop from which the bulbs were derived was inspected during the growing season according to appropriate

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

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

Phymatotrichopsis omnivora".

OR

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

AND

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

AND

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

D. For Dormant Bulbs from Countries <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 *Delphinium*", and are additional to those specified in sections 1, 2 and 3 of the import health standard.

GENERAL CONDITIONS:

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

Quarantine Pests: Uredinales

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

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

B. For Tissue Cultures:

Dianthus

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

GENERAL CONDITIONS:

Countries: All

Quarantine Pests: Frankliniella occidentalis, Liriomyza spp., Uredinales

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

A. For Whole Plants: PEQ: Level 2 Minimum Period: 3 months Additional Declaration:

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

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

B. For Tissue Cultures:

Dianthus caryophyllus

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

GENERAL CONDITIONS:

Countries: All

Quarantine Pests: Frankliniella occidentalis, Liriomyza spp.

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

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

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

OPTION 2: (For Netherlands only) PEQ: Level 2 Minimum Period: 4 weeks Additional Declarations:

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

2. "The plants have been held at $1.5^{\circ}C \pm 0.5^{\circ}C$ for 2 days, then fumigated with methyl bromide at 14g/m³ for 4 hours at 15°C and packed so that re-infestation with insects cannot occur."

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

GENERAL CONDITIONS:

Countries: All

Quarantine Pests: *Phymatotrichopsis omnivora*; Virus diseases

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

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

B. For Dormant Bulbs from Australia, Austria, Belgium, Canada, Denmark, Finland, France, Germany, Greece, Ireland, Israel, Italy, Luxembourg, The Netherlands, Portugal, South Africa, Spain, Sweden, United Kingdom: OPTION 1:

No import permit is required.

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

Minimum Period: 3 months

C. For Dormant Bulbs from the USA:

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

PEQ: None or Level 2 (see below)

Additional Declaration(s):

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

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

OR

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

AND

(ii) the consignment must be treated for fungi as described in Section 2.2.1.7 "Pesticide treatments for dormant bulbs". If satisfied that the pre-shipment activities have been

undertaken, the exporting country NPPO must confirm this by recording the treatments applied in the "Disinfestation and/or Disinfection Treatment" section of the phytosanitary certificate.

AND

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

D. For Dormant Bulbs from Countries <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:

Countries:AllQuarantine Pests:Cephalosporium diospyri; Xylella fastidiosaEntry Conditions:Basic; with variations and additional conditions as specified below:

A. For Whole Plants and Tissue Culture:PEQ:Level 3Minimum Period:3 months

Dracaena

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

GENERAL CONDITIONS:

Countries: All

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

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

A. For Cuttings and Whole Plants:

PEQ: Level 2

Minimum Period: 3 months

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

Additional declarations:

"The *Dracaena* cuttings / plants [choose one] in this consignment have been:

- sourced from a "Pest free area" or "Pest free place of production" [choose one], free from *Xyleborus* spp. (except *Xyleborus compressus*, *Xyleborus truncatus* and *Xyleborus saxeseni*).

AND

- sourced from a "Pest free area" or "Pest free place of production" [choose one], free from *Chrysomphalus aonidum*.
 - or
- inspected in accordance with appropriate official procedures and found to be free of *Chrysomphalus aonidum*."

Treatments:

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

B. For Plants in Tissue Culture:

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

GENERAL CONDITIONS:

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

Quarantine Pests: Pseudomonas syringae pv. eriobotryae

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

A. For Whole Plants:

PEQ:	Level 2
Minimum Period:	6 months

Additional Declaration:

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

OR

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

B. For Tissue Cultures:

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

GENERAL CONDITIONS:

Countries: All

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

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

A. For Whole Plants:

PEQ:	Level 3
Minimum Period:	6 months

B. For Tissue Cultures:

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

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

GENERAL CONDITIONS:

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

Quarantine Pests: Puccinia psidii; Xylella fastidiosa

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

A. For Whole Plants:
PEQ: Level 2
Minimum Period: 6 months
Additional Declaration(s):
1. "Puccinia psidii is not known to occur in _____ (the country or state of origin) _____".
2. "The plants have been sourced from a "Pest free area", free from Xylella fastidiosa".

B. For Tissue Cultures:

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

GENERAL CONDITIONS:

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

Quarantine Pests: Uredinales; Xylella fastidiosa

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

A. For Whole Plants
PEQ: Level 2
Minimum Period: 3 months
Additional Declaration(s):

"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) _____".

"The plants have been sourced from a "Pest free area", free from *Xylella fastidiosa*".

B. For Tissue Cultures:

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

GENERAL CONDITIONS:

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

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

A. For Nursery Stock excluding Tissue Cultures:

PEQ:	Level 2
Minimum Period:	3 months

Additional Declaration:

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

Special Condition:

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

B. For Tissue cultures:

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

GENERAL CONDITIONS:

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

Quarantine Pests: Cronartium quercuum; Phytopthora ramorum; Tortricidae

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

A. For Cuttings (dormant) and Whole Plants (dormant) from: a) Canada: **PEO:** Level 2 Minimum Period: 6 months **Additional Declaration(s):** 1. "The plants have been dipped in propiconazole at the rate of 0.5g a.i. per litre of water." 2. "The plants have been sourced from a "Pest free area", free from *Phytophthora ramorum*". OR PEQ: Level 3 **Minimum Period:** 6 months b) Austria, Belgium, Denmark, Finland, France, Germany, Greece, Hungary, Ireland, Italy, Luxembourg, The Netherlands, Norway, Portugal, Spain, Sweden, Switzerland, **United Kingdom, USA:** PEO: Level 3 **Minimum Period:** 6 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 *Fagus sylvatica*", and are additional to those specified in sections 1, 2 and 3 of the import health standard.

GENERAL CONDITIONS:

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

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

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

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

B. For Tissue Cultures:

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

GENERAL CONDITIONS:

Countries: All

Quarantine Pests: Uredo ficina

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

For Whole Plants and Tissue Culture:

PEQ:Level 2Minimum Period:3 monthsAdditional Declaration:

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

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

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

2. Pests of Fortunella

Refer to the pest list.

3. Entry conditions for:

3.1 Fortunella cuttings from offshore MAF-accredited facilities (quarantine stations)

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

(i) *Documentation*

Import permit is required

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

(ii) Inspection, Testing and Treatments of the consignment

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

(iii) *Phytosanitary requirements*

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

The Fortunella cuttings have been:

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

AND

sourced from either mother plants that have been kept in insect proof plant houses or from open ground mother plants

AND

- held and tested for/classified free from specified regulated pests at a MAFaccredited facility

AND

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

If satisfied that the pre-shipment activities have been undertaken, the exporting country

NPPO must confirm this by providing the following additional declarations to the phytosanitary certificate:

"The Fortunella cuttings in this consignment have been:

- inspected in accordance with appropriate official procedures and found to be free of any visually detectable regulated pests specified by MAF, and to conform with New Zealand's current phytosanitary requirements.

AND

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

AND

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

AND

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

(v) *Post-entry quarantine*

PEQ: Level 2

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

3.2 Fortunella cuttings from non-accredited facilities in any country

(i) *Documentation*

Import permit is required

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

(ii) *Phytosanitary requirements*

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

The Fortunella cuttings have been:

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

(iii) Additional declarations to the phytosanitary certificate

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

"The Fortunella cuttings in this consignment have been:

- inspected in accordance with appropriate official procedures and found to be free of any visually detectable regulated pests specified by MAF, and to conform with

the current phytosanitary requirements of MAF."

(iv) Inspection, Testing and Treatments of the consignment

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

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

(v) <u>*Post-entry quarantine*</u>

PEQ: Level 3

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

3.3 Fortunella plants in tissue culture from offshore MAF-accredited facilities

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

(i) *Documentation*

Import permit is required

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

(ii) <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 MAF and the accredited facility operator. Refer to *Fortunella* Inspection, Testing and Treatment Requirements following the *Fortunella* pest list.

(iv) *Phytosanitary requirements*

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

The *Fortunella* tissue culture have been:

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

AND

- held and tested for/classified free from specified regulated pests at a MAFaccredited facility and,

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 *Fortunella* tissue culture in this consignment have been:

- inspected in accordance with appropriate official procedures and found to be free of any visually detectable regulated pests specified by MAF, and to conform with New Zealand's current phytosanitary requirements.

AND

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

AND

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

(vi) Post-entry quarantine

PEQ: Level 2

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

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

(i) *Documentation*

Import permit is required

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

(ii) <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) *Phytosanitary requirements*

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

The *Fortunella* tissue culture have been:

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

(iv) Additional declarations to the phytosanitary certificate

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

"The *Fortunella* tissue culture in this consignment have been:

- inspected in accordance with appropriate official procedures and found to be free of any visually detectable regulated pests specified by MAF, and to conform with the current phytosanitary requirements of MAF."

(v) Inspection, Testing and Treatments of the consignment

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

(vi) *Post-entry quarantine*

PEQ: Level 3

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

Pest List for Fortunella

REGULATED PESTS (actionable)

Insect Insecta Coleoptera Bostrichidae Apate indistincta Apate terebrans **Buprestidae** Agrilus alesi Agrilus auriventris Cerambycidae Anoplophora malasiaca Chelidonium gibbicolle Dihammus vastator Melanauster chinensis Paradisterna plumifera Promeces linearis Skeletodes tetrops Strongylurus thoracicus Uracanthus cryptophagus Chrysomelidae Colasposoma fulgidum Colasposoma scutellare Geloptera porosa Luperomorpha funesta Monolepta australis Sebaethe fulvipennis 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] Rhvzobius 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 Dereodus recticollis Diaprepes abbreviatus Diaprepes spp. Eutinophaea bicristata Leptopius squalidus Naupactus xanthographus Otiorhynchus cribricollis Pachnaeus citri Pachnaeus litus Perperus lateralis Prepodes spp.

shot-hole borer shot-hole borer

flatheaded citrus borer citrus flatheaded borer

white-spotted longicorn beetle

fig longhorn

speckled longicorn

longhorn beetle pittosporum longicorn citrus branch borer

bluegreen citrus nibbler

pitted apple beetle mulberry flea beetle red-shouldered leaf beetle flea beetle

two-banded Japanese weevil

citrus weevil

citrus leaf-eating weevil fruit tree root weevil fruit tree weevil cribrate weevil

citrus root weevil white-striped weevil

Protostrophus avidus weevil Sciobius marshalli Sympiezomias lewisi Lucanidae Prosopocoilus spencei Scarabaeidae Hypopholis indistincta Maladera matrida Scolytidae Salagena sp. Xylosandrus germanus Diptera Cecidomyiidae Contarinia citri Contarinia okadai Trisopsis sp. Chamaemyiidae Leucopis alticeps [Animals Biosecurity] Drosophilidae Drosophila paulistorum Drosophila pseudoobscura Drosophila simulans Drosophila willistoni Tephritidae Dirioxa pornia Hemiptera Anthocoridae Orius thripoborus [Animals Biosecurity] Thriphleps thripoborus [Animals Biosecurity] Coreidae Acanthocoris striicornis Anoplocnemis curvipes Leptoglossus membranaceus Mictis profana Paradasynus spinosus Veneza phyllopus Lygaeidae Nysius vinitor Miridae Austropeplus sp. Pentatomidae Antestia variegata Antestiopsis orbitalis Antestiopsis variegata Biprorulus bibax Glaucias subpunctatus Halyomorpha mista Musgraveia sulciventris Plautia stali Rhynchocoris humeralis **Unknown Hemiptera** Holopterna vulga bug Homoptera Aleyrodidae Aleurocanthus citriperdus whitefly Aleurocanthus spiniferus Aleurocanthus spp. Aleurocanthus woglumi citrus blackfly spiralling whitefly Aleurodicus dispersus Aleurolobus marlatti Marlatt whitefly

citrus snout beetle scarab beetle scarab beetle alnus ambrosia beetle leafcurling midge citrus flower gall midge island fruit fly larger squash bug coreid bug coreid bug crusader bug squash bug leaf-footed bug Rutherglen bug citrus blossom bug antestia bug antestia bug spined citrus bug polished green stink bug brown-marmorated stink bug bronze orange bug oriental stink bug pentatomid bug orange spiny whitefly whiteflies

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 yellow 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 heneficus [Animals Biosecurity]	_
Comperiella hifasciata [Animals Biosecurity]	_
Hahrolonis rouvi [Animals Biosocurity]	_
Lentomastiv dactylonii [Animals Biosecurity]	narasitic wasn
Motanhycus holyolus [Animals Biosocurity]	parasitic wasp
Motaphycus Introdus [Animals Dioseculity]	-
Metaphycus luevius [Animals Diosecurity]	-
Metaphycus stalie yr [Animals Dioseculity]	-
<i>Metaphycus valus</i> [Animals Bioseculity]	-
Psyllaephagus pulvinalus [Animais Biosecunity]	-
Europhidae	
Aprostocetus ceropiastae (Animais Biosecurity)	-
Elachertus tenestratus [Animais Biosecurity]	-
<i>Tamarixia radiatus</i> [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 neringuevi [Animals Biosecurity]	cocktail ant
Lenisiota canensis [Animals Biosecurity]	-
Mvrmicaria natalensis	_
Pheidale tenuinadis	ant
Polyrhachis schistacous	ant
Fulymachis schistactus Salanansis invista [Animals Piesecurity]	and rod imported fire ant
<i>Solenopsis Invicia</i> [Animais Diosecunity]	red imported file and
Tachnomymay albinas forali [Animala Diasaauritu]	-
<i>Technomymex aloipes foreii</i> [Animais Biosecurity]	-
Chapterumer grazila [Animala Diagoguritu]	
Chaetomymai gracile [Animais Biosecurity]	-
Chaetomymar lepidum [Animais Biosecurity]	-
Gonatocerus incomptus [Animais Biosecurity]	-
Platygasteridae	
Amitus hesperidum [Animais Biosecurity]	-
Amitus spiniterus [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]	-
Signinhora nornauca [Animals Diosocurity]	
Signiphora perpauca [Animais biosecunty]	-
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 Eumeta moddermanni Hyalarcta huebneri Pyralidae Apomyelois ceratoniae Tortricidae Adoxophyes sp. Amorbia cuneana Archips argyrospilus Archips machlopis Archips occidentalis Archips rosanus Argyrotaenia citrana Cacoecimorpha pronubana Cryptophlebia batrachopa Cryptophlebia leucotreta Homona magnanima Isotenes miserana Platynota stultana Tortrix capensana **Yponomeutidae** Prays citri Prays parilis Neuroptera Chrysopidae Chrysopa oculata [Animals Biosecurity] Coniopterygidae Coniopteryx vicina [Animals Biosecurity] Conwentzia barretti [Animals Biosecurity] Orthoptera Acrididae Zonocerus elegans Gryllidae Ornebius kanetataki Tettigoniidae Caedicia sp. Holochlora japonica Microcentrum retinerve Scudderia furcata Psocoptera Archipsocidae Archipsocus sp. Thysanoptera Aeolothripidae Franklinothrips vespiformis [Animals Biosecurity] Thripidae Chaetanaphothrips orchidii Leptothrips mali Scirtothrips aurantii Scirtothrips citri Scirtothrips dorsalis Scirtothrips mangiferae Scolothrips sexmaculatus [Animals Biosecurity] Taeniothrips kellyanus Taeniothrips sp. Thrips coloratus Thrips flavus Thrips palmi Unknown Insecta

tea bagworm leaf case moth date pyralid leafroller fruit tree leafroller leafroller leafroller rose leafroller orange tortrix carnation leafroller false codling moth oriental tea tortrix orange fruitborer omnivorous leafroller tortricid moth citrus flower moth citrus flower moth elegant grasshopper cricket Japanese broadwinged katydid smaller angular-winged katydid fork-tailed bush katydid bark louse banana rust thrips black hunter thrips citrus thrips citrus thrips chilli thrips mango thrips thrips flower thrips palm thrips

Unknown Insecta

Cosmophyllum pallidulum

Mite Arachnida Acarina Acaridae Thyreophagus entomophagus italicus [Animals Biosecurity] Anystidae Anystis agilis [Animals Biosecurity] Eriophyidae Aculops pelekassi eriophyid mite Tegolophus australis brown citrus mite Phytoseiidae Amblyseius addoensis [Animals Biosecurity] Amblyseius citri [Animals Biosecurity] Amblyseius swirskii [Animals Biosecurity] Euseius hibisci [Animals Biosecurity] Euseius scutalis [Animals Biosecurity] Euseius stipulatus [Animals Biosecurity] Euseius tularensis [Animals Biosecurity] Iphiseius degenerans [Animals Biosecurity] predatory mite Typhlodromus athiasae [Animals Biosecurity] Stigmaeidae Agistemus africanus [Animals Biosecurity] Agistemus tranatalensis [Animals Biosecurity] Eryngiopus siculus [Animals Biosecurity] Tarsonemidae Tarsonemus cryptocephalus [Animals Biosecurity] Tenuipalpidae Brevipalpus chilensis false spider mite Brevipalpus lewisi bunch mite Brevipalpus obovatus privet mite Tenuipalpus emeticae [Animals Biosecurity] Tuckerella ornata Ultratenuipalpus gonianaensis tenuipalpid mite Tetranychidae Calacarus citrifolii clover mite Eotetranychus kankitus tetranychid mite Eotetranychus lewisi big beaked plum mite Eotetranychus yumensis Yumi spider mite Eutetranychus africanus tetranychid mite Eutetranychus banksi Texus citrus mite Eutetranychus orientalis pear leaf blister mite Oligonychus mangiferus mango spider mite Tetranvchus kanzawai kanzawa mite Tuckerellidae hawthorn spider mite Tuckerella knorri 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	snall
Urocyclidae	
Ulucyclus lidvescens Hrocyclus kirkii	-
Fungus	
Ascomycota	
Diaporthales	
Valsaceae	
Diaporthe rudis (anamorph Phomopsis rudis)	phomopsis canker
Dothideales	
Elsinoaceae	
Elsinoe australis	sweet orange scab
Capnodiaceae	
Capnodium citri	sooty mould
Didymosphaeriaceae	
<i>Didymosphaeria</i> sp.	
Mycosphaerellaceae	
Guignardia citricarpa (anamorph Phyllosticta citricarpa) [black	citrus black spot
spot strain]	
Mycosphaerella citri (anamorph Stenella citri-grisea)	rind blotch
Mycosphaerella horii	greasy spot
Patellariaes	
Rnytlanysteron rutulum	
Saccharomycetales	
Deharverwees hansenii	
Debai yulliyees lialiseliii Calactomycos citri aurantii (anamornh Cootrichum citri	- sour rot
	Souriol
Basidiomycota: Basidiomycetes	
Boletales	
Conjonhoraceae	
Conionhora eremonhila	brown wood rot
Basidiomycota: Teliomycetes	
Septobasidiales	
Septobasidiaceae	
Septobasidium pseudopedicellatum	felt fungus
Mitosporic Fungi	0
Unknown Mitosporic Fungi	
Unknown Mitosporic Fungi	
Sphaceloma fawcettii var. scabiosa	-
Mitosporic Fungi (Coelomycetes)	
Sphaeropsidales	
Sphaerioidaceae	
Macrophoma mantegazziana	-
Phoma erratica var. mikan Dhama kashalahila	
Phoma Irachelphila Dhamanciash	mai secco
Priviriupsis sp.	IUL
Stylulia Syp.	- ctom gall
Spilderupsis luirieracieris	stern gan
Unknown Coolomycotos	
Aschersonia nlacenta [Animals Riosecurity]	
i sono sona placonta frinnais Dioscounty	

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.	
Zvgomvcota: Zvgomvcetes	
Glomales	
Glomaceae	
Glomus etunicatum [Animals Biosecurity]	
Mucorales	
Syncephalastraceae	
Syncephalastrum racemosum	
e jiroopinalaen alli raeelli oo alli	
Bacterium	
Bactorium family unknown	
Liborobactor africanum	citrus arooning bactorium
Liberobactor asiaticum	citrus greening bacterium
Liberabactorsp	citrus greening bacterium
Liberubacier sp.	citrus stubborn
Spiropiasina ciun	CITUS STUDDOTTI
Pseudomonadaceae	oour olin
Burkhoidena cepacia	SOUL SKIT
Xaninomonas axonopodis pv. citri	citrus canker
Xantnomonas campestris pv. aurantitolli	-
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	-

1 March 2005

satsuma dwarf nepovirus [Natsudaidai dwarf strain] xyloporosis viroid yellow vein clearing of lemon	-
Phytoplasma	
<i>Candidatus</i> Phytoplasma aurantifolia rubbery wood	witches' broom phytoplasma -
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	-

NON-REGULATED PESTS (non-actionable)

Insect	
Coleontera	
Anthribidae	
Araecerus fasciculatus	coffee bean weevil
Cerambycidae	
Opmona hirta	lemon tree horer
Coccinellidae	
Cryntolaemus montrouzieri	mealybug destroye
Rodolia cardinalis [Animals Biosecurity]	-
Curculionidae	
	Fuller's rose weevi
Listradoros obliguus	voqetable weevil
Malautornos snininos	dicky rice weevil
Dhlvctinus callosus	handed fruit weevil
Scarabaoidao	banded indit weevin
Costolutra zoalandica	arass arub
Diptora	grass grub
Cryptochaotidao	
Cryptochaetiuae Cryptochatym icoryaa [Animals Diosocurity]	
Drosophilidao	-
Drosophila malapagastor	vipogar fly
Di USUpi illa illela ilugastel Homintora	vinegal fly
Doptatomidao	
	groon vogstable bi
Homontora	green vegetable bi
Alevredidae	
Orchamonlatus citri	Australian citrus w
Aphididao	Australian citrus wi
Aphis craccivora	cowpoa aphid
Aphis ciaccivola Aphis assunii	cotton aphid
Aphis gossypii Aphis parii	oloopdor ophid
Aphis spiraocola	spiroa aphid
Aprils Spilationa Macrosinhum aunhorbiaa	spirea aprilu
Muzus corasi	pulatu aprilu black chorry aphid
Myzus persicae	groon poach aphid
Myzus perside Tovoptore gurantii	green peach aprilu
Toxoptera altricida	black citius aprilu
Coccidao	brown citrus aprilu
Cocculate Coronlactos coriforus	Indian white way of
Ceroplastes centruster	
Ceroplastes destructor	Chipaga way goala
Ceropiasies silierisis	crimese wax scale
Coccus iongunus	IULIY DI UWIT SCALE
Saissella colleae	
Saissella üleae	DIACK SCALE
	Colifornia rad apol
Aonidiatus hadaras	
Aspidiolus nederae	
ASPIUIOIUS TIETI Diagnia cantali	
Diaspis sainair Lindingoonio rocci	Scale Deed block scale
Liiluiiiydspis lussi	RUSS DIACK SCALE
Lopnoieucaspis Japonica	pear white scale
Parlaloria pergandii	chall scale
PINNASPIS ASPIAISITAE	iern scale
Quaaraspiaiotus perniciosus	San Jose scale

er il ug hitefly scale le le

Flatidae Siphanta acuta Margarodidae Icerya purchasi Pseudococcidae Planococcus citri Planococcus mali Pseudococcus calceolariae Pseudococcus longispinus Pseudococcus viburni Ricaniidae Scolypopa australis Hymenoptera Aphelinidae Aphytis chrysomphali [Animals Biosecurity] Encarsia citrina [Animals Biosecurity] Encarsia perniciosi [Animals Biosecurity] Encyrtidae Coccidoctonus dubius [Animals Biosecurity] Formicidae Linepithema humile [Animals Biosecurity] Pheidole megacephala [Animals Biosecurity] Lepidoptera Geometridae Pseudocoremia dejectaria Pseudocoremia suavis Hepialidae Aenetus virescens Noctuidae Helicoverpa armigera Spodoptera litura Oecophoridae Stathmopoda phlyegyra [Animals Biosecurity] Tortricidae Cnephasia jactatana Ctenopseustis obliguana Epalxiphora axenana Epiphyas postvittana Planotortrix excessana Orthoptera Tettigoniidae Caedicia simplex Thysanoptera Phlaeothripidae Nesothrips propinguus breviceps Thripidae Frankliniella occidentalis Heliothrips haemorrhoidalis Pezothrips kellyanus Thrips hawaiiensis Thrips obscuratus Thrips tabaci

Mite

Arachnida Acarina Eriophyidae Aceria sheldoni Phyllocoptruta oleivora Phytoseiidae green planthopper cottony cushion scale citrus mealybug citrophilus mealybug longtailed mealybug obscure mealybug passionvine hopper Argentine ant big-headed ant pine looper puriri moth tomato fruitworm cluster caterpillar black lyre leafroller brownheaded leafroller light brown apple moth greenheaded leafroller katydid western flower thrips greenhouse thrips Kelly's citrus thrips Hawaiian flower thrips

citrus bud mite citrus rust mite

onion thrips

New Zealand flower thrips

Phytoseiulus persimilis [Animals Biosecurity]	predatory mite
<i>Eryngiopus bifidus</i> [Animals Biosecurity]	-
Tarsonemidae	have a day to
Polypnagolarsonemus lalus Tenuinalnidae	broad mile
Brevipalpus californicus	bunch mite
Brevipalpus phoenicis	passionvine mite
Tetranychidae	
Eotetranychus sexmaculatus	sixspotted mite
PallollyChus clint Tetranychus cinnaharinus	carmine spider mite
Tetranychus urticae	twospotted spider mite
Mollusc	
Gastropoda	
Stylommatophora	
Helicidae Helik asporca	common gardon spail
Limacidae	common yaruen shall
Deroceras reticulatum	grey garden slug
Fungus	
Ascomycota	
Valsaceae	
Diaporthe citri (anamorph Phomopsis citri)	melanose
Diatrypales	
Diatrypaceae	
Eutypa lata	eutypa dieback
Dolnideales	
Botryosphaeria dothidea (anamorph Fusicoccum aesculi)	canker
Botryosphaeria rhodina	gummosis
Capnodiaceae	
Capnodium salicinum	sooty mould
Elsinoe fawcettii (anamornh Sphaceloma fawcetti)	verrucosis
Mycosphaerellaceae	
Guignardia citricarpa (anamorph Phyllosticta citricarpa) [non-	latent skin infection
pathogenic strain]	
Mycosphaerella pinodes (anamorph Ascochyta pinodes)	mycosphaerella blight
Pleosporaceae	black leal sput
Pleospora herbarum (anamorph Stemphylium herbarum)	black mould rot
Hypocreales	
Hypocreaceae	fun and una nat
Gibberella baccala (anamorph Fusarium fuikuro) Gibberella fuikuroi (anamorph Fusarium fuikuro)	fusarium rot
Gibberella intricans (anamorph Fusarium equiseti)	root and stem drv rot
Nectria haematococca (anamorph Fusarium solani)	fusarium fruit rot
Leotiales	
Scierotiniaceae	arov mould
Sclerotinia sclerotiorum	cottony rot
Phyllachorales	
Phyllachoraceae	
Glomerella cingulata (anamorph Colletotrichum	anthracnose
gloeosporioides)	
Saccharonnycerates	

Dipodascaceae	
Dipodascus geotrichum (anamorph Geotrichum candidum)	sour rot
Endomycetaceae	
Endomyces aeotrichum	endomyces
Xvlariales	ondonijece
Xylariaceae	
I Istulina deusta	coal fundus
Basidiomycota: Basidiomycetes	courrangas
Storoalos	
Hyphodormatacoao	
Fruthricium salmonicolor (anamornh Nocator docrotus)	nink disaasa
Mitosporio Eurori (Coolomycotos)	pilik uisease
Sphaorongidalog	
Lentestrometaceae	
Closedes namigene	cooty blotch
Gioeoues pornigena	Sooly blotch
Spnaerioidaceae	a a a a a huda wad
	ascocnyta rot
Lasiodipiodia theobromae	fruit and stem-end rot
Septoria citri	septoria spot
Mitosporic Fungi (Hyphomycetes)	
Hyphomycetales	
Dematiaceae	
Alternaria alternata	black stalk rot
Alternaria citri	alternaria rot
Alternaria hesperidearum	
Moniliaceae	
Aspergillus flavus	aspergillus storage rot
Aspergillus niger	aspergillus rot
Penicillium digitatum	green mould
Penicillium italicum	blue mould
Penicillium ulaiense	penicillium mould
Verticillium lecanii [Animals Biosecurity]	
Tuberculariales	
Tuberculariaceae	
Fusarium culmorum	dry rot
Fusarium oxysporum	leaf snot
Unknown Hynhomycetes	
Unknown Hyphomycetes	
Trichothocium rosoum	nink rot
Oomucota	pilik lut
Duthialoc	
Pyllidies	
Pylliacede Deutophthora citricolo	brown rot of fruit
Phylophinola chincola Deutophihora aitranethara	DIOWITIOL OF ITUIL
Phylophinora chrophinora	citrus prown rot
Phytophinora nibernalis	citrus brown rot
Phytophinora nicotianae var. parasitica	collar and root rot
Zygomycota: Zygomycetes	
Mucorales	
Mucoraceae	
Rhizopus stolonifer	rhizopus soft rot
Bacterium	
Pseudomonadaceae	
Pseudomonas corrugata	tomato pith necrosis
Pseudomonas fluorescens	pink eye
Pseudomonas syrinaae	bacterial blast
Pseudomonas syrinaae pv. syrinaae	bacterial soft rot
Virus	

-

citrus enation - woody gall luteovirus

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

ORGANISM TYPES	MAF 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	
E	conditions).	
Fungus Restarium	Country freedom OR growing season inspection for symptom expression.	
Burkholdaria canacia	Growing season inspection for symptom expression	
Liberobacter africanum	Country freedom OB graft in couleted quart granges, grange nineernle, 18 to 2500	
Liberobacter asiaticum	Country freedom OR graft-inoculated sweet oranges, orange pineappie, 18 to 25°C.	
Spiroplasma citri	Country freedom OK graft-inoculated sweet oranges, orange pineappie, 18 to 25°C.	
Spiropiasma curi	Country freedom/shoot tip grafting. Graft inoculated sweet orange, 27 to 32°C. Bioassay =	
	culture petiole new flush tissue. Collect tissue after several days at hot temperature (> 30°C) and	
	incubate cultures at 32°C.	
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	Country freedom/shoot tip grafting bioassay/detached leaf bioassay/ PCR OR suitable citrus	
pv. citrumelo	indicator.	
Xylella fastidiosa	Country freedom/shoot tip grafting bioassay/ PCR/ELISA OR suitable citrus indicator.	
Xylella fastidiosa pv. citri	Country freedom/shoot tip grafting bioassay PCR/ELISA OR suitable citrus indicator.	
Virus	Country freedom OB graft inequilated rough lamon at appl temperatures temperatures 18 to	
citrus chiorotic dwarf	25°C.	
citrus infectious variegation	Country freedom OR graft inoculated citron, sour orange, lemon, cidro etrog. Grow indicators at	
ilarvirus	cool temperatures 18 to 25°C.	
citrus infectious variegation	Country freedom OR graft inoculated citron, sour orange, lemon, cidro etrog. Grow indicators at	
ilarvirus [crinkly leaf strain]	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	
citrus ringspot virus	25°C. Country freedom OR graft inoculated dweet tangor, sweet orange, mandarin (Parson's Special)	
citius migspot virus	Grow indicators at cool temperatures 18 to 250C	
citrus tatter leaf capillovirus	Country freedom OR graft inoculated Rusk citrange, rough lemon, <i>Citrus arcelsa</i> , citrange	
entus tatter lear capillovirus	(Trover) Grow indicators at cool temperatures 18 to 250C	
citrus tristeza closterovirus	Country freedom OR FLISA graft inoculated Mexican lime sour orange and <i>Citrus excelsa</i>	
[strains not in New Zealand]	Grow indicators at cool temporatures 18 to 250C	
citrus vellow mosaic	Country freedom OR graft inoculated sweet orange sour orange and citron	
badnavirus	Country needoni OK grant moculated sweet orange, sour orange and enroll.	
citrus yellow mottle virus	Country freedom OR other suitable test.	
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 temperatures 18 to	
mottling virus	25°C.	
satsuma dwarf nepovirus	Country freedom OR graft inoculated satsums. Grow indicators at cool temperatures 18 to	
	25°C.	

ORGANISM TYPES	MAF ACCEPTABLE METHODS	
satsuma dwarf nepovirus	Country freedom OR graft inoculated satsums. Grow indicators at cool temperatures 18 to	
[Natsudaidai dwarf strain]	25°C.	
yellow vein clearing of	Country freedom OR graft inoculated Mexican lime or sour orange. Grow indicators at cool	
lemon	temperatures 18 to 25°C.	
Viroid		
citrus cachexia viroid	Country freedom OR SPAGE and PCR on graft inoculated citron extract. Grow citron at hot	
	temperature 27 to 32°C.	
citrus variable viroid	Country freedom OR SPAGE and PCR on graft inoculated citron extract. Grow citron at hot	
	temperature 27 to 32°C.	
citrus viroids (groups I-IV)	Country freedom OR SPAGE and PCR on graft inoculated citron extract. Grow citron at hot	
	temperature 27 to 32°C.	
dwarfing factor viroid	Country freedom OR SPAGE and PCR on graft inoculated citron extract. Grow citron at hot	
-	temperature 27 to 32°C.	
xyloporosis viroid	Country freedom OR SPAGE and PCR on graft inoculated citron extract or mandarin (Parson's	
	Special). Grow Citron at hot temperature 27 to 32°C.	
Disease of unknown		
aetiology		
Australian citrus dieback	Country freedom OR other suitable test	
blind pocket	Country freedom OR graft inoculated dweet tangor, sweet orange or Citrus excelsa. Grow	
	indicators at cool temperatures 18 to 25°C.	
bud union disease	Country freedom OR other suitable test	
citrus blight disease	None (cuttings collected from blight free area). Inspect source tree after 2 years before releasing from quarantine.	
citrus fatal vellows	Country freedom OR graft inoculated <i>Citrus macrophylla</i> .	
citrus impietratura disease	Country freedom OR graft inoculated dweet tangor or sweet orange. Growth indicators at cool	
1	temperatures 18 to 25°C.	
citrus sunken vein disease	Country freedom OR other suitable test.	
concave gum	Country freedom OR graft inoculated dweet tangor, sweet orange or <i>Citrus excelsa</i> . Grow	
	indicators at cool temperatures 18 to 25°C.	
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	
8 <i>j</i>	27 to 32°C	
kassala disease	Country freedom, cuttings collected from kassala free area.	
lemon sieve tube necrosis	Country freedom OR other suitable test.	
shell bark of lemons	Country freedom OR other suitable test.	
zonate chlorosis	Country freedom, cuttings collected from kassala free area.	
Phytoplasma		
Candidatus phytoplasma	Country freedom OR graft inoculated lime. Grow indicators at cool temperatures 18 to 25°C.	
aurantifolia		
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 an individual plantlet or cutting. Each single plantlet and cutting must be labelled individually and tested separately.
- 2. With prior notification, MAF will accept other internationally recognised testing methods.

Fragaria

Scientific name	Commodity Sub-class	Date Issued
Fragaria x ananassa	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 *Freesia*", and are additional to those specified in sections 1, 2 and 3 of the import health standard.

GENERAL CONDITIONS:

Countries: All

Quarantine Pests: Virus diseases

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

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

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

OPTION 1:

No import permit is required. PEQ: None Additional Declaration(s):

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

"In addition to inspection of the dormant bulbs prior to shipment, the imported bulbs meet the requirements of the NAKtuinbouw Elite (Class SEE or EE) or Select (Class A or E) [choose one] bulb certification scheme."

OR

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

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

OPTION 2: PEQ: Level 1 **Minimum Period:** 3 months C. For Dormant Bulbs from Countries <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 hulbs in this as

"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:

Countries: All

Quarantine Pests: Aculops fuchsiae (Fuchsia Gall Mite)

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

A. For Whole Plants or Cuttings:

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

Additional Declarations:

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

OR

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

B. For Tissue Cultures:

Gentiana

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

GENERAL CONDITIONS:

Countries: Japan

Quarantine Pests: Cronartium flaccidum; Tetranychus kanzawai

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

A. For Whole Plants:

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

Additional Declarations:

- 1. "The plants have been dipped in oxycarboxin at 1.5g a.i. per litre of water, prior to export".
- 2. "The plants have been dipped prior to export in dicofol at the rate of 0.7g a.i. per litre.

B. For Tissue Cultures:

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

GENERAL CONDITIONS:

Countries: All

Quarantine Pests: Frankliniella occidentalis; Liriomyza spp.

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

A. For Whole Plants:

PEQ: Level 2 Minimum Period: 3 months

Additional Declaration:

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

B. For Tissue Cultures:

Gladiolus

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

GENERAL CONDITIONS:

Countries: All

Quarantine Pests: Puccinia gladioli

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

A. For Whole Plants:

PEQ: Level 2

Minimum Period: 6 months

Additional Declarations:

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

"The plants were inspected during the growing season and *Puccinia gladioli* was not detected".

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

OPTION 1:

No import permit is required. PEQ: None Cleanliness: Bulbs (corms) must be free of leafy coverings. Additional Declaration(s): 1) For bulbs produced under a MAF-approved Dutch bulb propagation scheme:

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

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

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

OPTION 2: PEQ: Level 1 Minimum Period: 3 months Cleanliness: Bulbs (corms) must be free of leafy coverings. C. For Dormant Bulbs from Countries <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 1Minimum Period: 3 monthsCleanliness: 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:

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

GENERAL CONDITIONS:

Countries: All

Quarantine Pests Uromyces spp.

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

A. For Whole Plants:

PEQ: Level 2 Minimum Period: 3 months Additional Declaration: "Uromyces spp. are not known to occur on Glycyrrhiza in _____ (the country or state where the plants were grown) _____". OR

"The plants were inspected during the growing season and no Uromyces spp. were detected".

B. For Tissue Cultures:

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

GENERAL CONDITIONS:

Countries: All

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

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

B. For Plants in Tissue Culture:

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

GENERAL CONDITIONS:

Countries: All

Quarantine Pests:Alternaria helianthi; Septoria helianthi; Phymatotrichopsis omnivora;
Plasmopara halstedii; Pseudomonas spp.; Uredinales

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

For Dormant Tubers Only:

PEQ: Level 2 Minimum Period: 3 months Additional Declaration(s):

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

OR

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

AND

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

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

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

Dormant bulbs Plants in tissue culture

2. Pests of Hippeastrum

Refer to the pest list.

3. Entry conditions for:

3.1 Hippeastrum dormant bulbs from any country

(i) *Documentation*

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

(ii) *Phytosanitary requirements*

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

The *Hippeastrum* dormant bulbs have been:

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

AND

sourced from a "Pest free area", "Pest free place of production" or "Pest free production site", free from regulated nematodes and fungi OR treated for regulated nematodes and fungi as described in section 2.2.1.7 of the basic conditions within 7 days prior to freezing, cold-storage or shipment.

AND

- sourced from a "Pest free area", "Pest free place of production" or "Pest free production site", free from regulated bacteria and viruses.

AND

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

AND

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

(iii) Additional declarations to the phytosanitary certificate

If satisfied that the pre-shipment activities have been undertaken, the exporting country NPPO must confirm this by recording the treatments applied in the "Disinfestation and/or Disinfection Treatment" section, and by providing the following additional declaration to the phytosanitary certificate:

"The *Hippeastrum* dormant bulbs in this consignment have been:

- sourced from a "Pest free area", "Pest free place of production" or "Pest free production site", free from regulated nematodes and fungi [if applicable].

AND

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

(iv) <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.

3.2 Hippeastrum plants in tissue culture from any country

(i) *Documentation*

Phytosanitary certificate: a completed phytosanitary certificate, issued by the national plant protection organisation (NPPO) of the exporting country, is required. **Import permit:** no import permit is required.

(ii) Special tissue culture media requirements

The tissue culture media must not contain charcoal.

(iii) *Phytosanitary requirements*

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

The *Hippeastrum* plants in tissue culture have been:

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

AND

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

AND

derived from parent stock tested using molecular/ serological methods [choose ONE option] and found free of *Impatiens necrotic spot virus* and *Iris yellow spot virus*.

(iv) Additional declarations to the phytosanitary certificate

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

"The *Hippeastrum* plants in tissue culture have been derived from parent stock:

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

AND

- tested using molecular/ serological methods [choose ONE option] and found free of *Impatiens necrotic spot virus* and *Iris yellow spot virus*."

(iv) *Post-entry quarantine*

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

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

Import permit: an import permit is required.

PEQ: Level 3

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

Pest List for Hippeastrum

REGULATED PESTS (actionable)

Mite	
Arachnida	
Acarina	
larsonemidae	
Steneotarsonemus laticeps	bulb scale mite
Nematode	
Secernentea	
Tylenchida	
Pratylenchidae	
Pratylenchus coffeae	coffee root lesion nematode
Pratylenchus scribneri	Scribner's root lesion nematode
Fungus	
mitosporic fungi (Agonomycetes)	
Agonomycetales	
unknown Agonomycetales	
Rhizoctonia tuliparum	basal rot
Basidiomycota: Basidiomycetes	
Agaricales	
Tricholomataceae	
Armillaria mellea (anamorph Rhizomorpha subcorticalis)	armillaria root rot
Bacterium	
Enterobacteriaceae	
Erwinia rhapontici	bacterial soft rot
Virus	
Hippeastrum mosaic virus	-
Impatiens necrotic spot virus	-
Iris vellow spot virus	-
Nerine latent virus	-

NON-REGULATED PESTS (non-actionable)

Nematode	
Secernentea	
lylenchida	
Pratylenchidae	
Pratylenchus penetrans	root lesion nematode
Fungus	
Ascomycota	
Leotiales	
Sclerotiniaceae	
Botryotinia fuckeliana (anamorph Botrytis cinerea)	grey mould
Stereales	
Atheliaceae	
Athelia rolfsii (anamorph Sclerotium rolfsii)	Rolf's disease
Zygomycota: Zygomycetes	
Mucorales	
Mucoraceae	
Rhizopus stolonifer	rhizopus soft rot
mitosporic fungi (Coelomycetes)	I
Sphaeropsidales	
Sphaerioidaceae	
Phoma glomerata	phoma fruit and leaf spot
Stagonospora curtisii	leaf scorch
mitosporic fungi (Hyphomycetes)	
Hyphomycetales	
Dematiaceae	
Alternaria Iongines	alternaria spot
Tuberculariales	
Tuberculariaceae	
Fusarium oxysporum	leaf spot
Bacterium	
Enterohacteriaceae	
Envipia carotovora subsp. Carotovora	hactorial soft rot
Virus	
Cucumber mosaic virus	-
Leek yellow stripe virus	-
Tobacco mosaic virus	-
Tomato spotted wilt virus	-

Humulus

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

GENERAL CONDITIONS:

Countries: All

Quarantine Pests: *Pseudoperonospora humuli; Tetranychus kanzawai; Verticillium alboatrum*

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

For Whole Plants and Tissue Culture:

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

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

GENERAL CONDITIONS:

Countries: All

Quarantine Pests: Tetranychus kanzawai; Xylella fastidiosa

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

A. For Cuttings and Whole Plants from All Countries except Argentina, Belize, the Caribbean Islands, Costa Rica, El Salvador, Guatemala, Honduras, Mexico, Nicaragua, Panama, Peru, United States of America, Venezuela and Yugoslavia: PEQ: Level 2 Minimum Pariod: 3 months

Minimum Period: 3 months

Additional Declaration(s):

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

2. "The plants have been sourced from a "Pest free area", free from Xylella fastidiosa".

B. For Plants in Tissue Culture from All Countries:

Ipomoea batatas

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

GENERAL CONDITIONS:

Countries: All

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

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

For Whole Plants and Tissue Cultures:PEQ:Level 3Minimum Period:3 months

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

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

Whole plants Dormant bulbs Plants in tissue culture

2. Pests of *Iris* Refer to the pest list.

3. Entry conditions for:

3.1 *Iris* whole plants and dormant bulbs from any country

(i) *Documentation*

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

(ii) <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 (MAF) have been undertaken.

The *Iris* dormant bulbs or whole plants have been:

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

AND

- sourced from a "Pest free area", "Pest free place of production" or "Pest free production site", free from regulated nematodes and fungi OR treated for regulated nematodes and fungi as described in section or section 2.2.1.7 of the basic conditions within 7 days prior to freezing, cold-storage or shipment.

AND

- sourced from a "Pest free area", "Pest free place of production" or "Pest free production site", free from regulated bacteria and viruses.

AND

treated for regulated insects and mites as described in section 2.2.1.6 [whole plants] or section 2.2.1.7 [dormant bulbs] of the basic conditions within 7 days prior to freezing, cold-storage or shipment.

AND

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

(iii) Additional declarations to the phytosanitary certificate

If satisfied that the pre-shipment activities have been undertaken, the exporting country NPPO must confirm this by recording the treatments applied in the "Disinfestation and/or

Disinfection Treatment" section, and by providing the following additional declaration to the phytosanitary certificate:

"The *Iris* dormant bulbs or whole plants [choose one] in this consignment have been:

- sourced from a "Pest free area", "Pest free place of production" or "Pest free production site", free from regulated nematodes and fungi [if applicable].

AND

- sourced from a "Pest free area", "Pest free place of production" or "Pest free production site", free from regulated bacteria and viruses."

(iv) Post-entry quarantine

Whole plants and dormant bulbs

PEQ: Level 1

Quarantine Period: This is the time required to complete inspections and/or testing to detect regulated pests. Three months is an indicative minimum quarantine period. The quarantine period may be extended if material is slow growing, pests are detected, or treatments/testing are required. Cut flowers may receive biosecurity clearance while the imported plants remain in post-entry quarantine following inspection of the parent plants and with prior approval from a MAF Inspector.

3.1 Iris whole plants and dormant bulbs from the Netherlands

(i) *Documentation*

Phytosanitary certificate: a completed phytosanitary certificate, issued by the national plant protection organisation (NPPO) of the exporting country, is required. **Import permit:** no import permit is required.

(ii) *Phytosanitary requirements*

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

The Iris dormant bulbs or whole plants have been:

- produced in accordance with the requirements of the Bloembollenkeuringsdienst (BKD) Class 1 bulb certification scheme.

AND

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

AND

sourced from a "Pest free area", "Pest free place of production" or "Pest free production site", free from regulated nematodes and fungi OR treated for regulated nematodes and fungi as described in section or section 2.2.1.7 of the basic conditions within 7 days prior to freezing, cold-storage or shipment.

AND

- sourced from a "Pest free area", "Pest free place of production" or "Pest free production site", free from regulated bacteria and viruses.

AND

- treated for regulated insects and mites as described in section 2.2.1.6 [whole plants] or section 2.2.1.7 [dormant bulbs] of the basic conditions within 7 days prior to freezing, cold-storage or shipment.

AND

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

(iii) Additional declarations to the phytosanitary certificate

If satisfied that the pre-shipment activities have been undertaken, the exporting country NPPO must confirm this by recording the treatments applied in the "Disinfestation and/or Disinfection Treatment" section, and by providing the following additional declaration to the phytosanitary certificate:

"The Iris dormant bulbs or whole plants [choose one] in this consignment have been:

- produced in accordance with the requirements of the BKD Class 1 bulb certification scheme.

AND

- sourced from a "Pest free area", "Pest free place of production" or "Pest free production site", free from regulated nematodes and fungi [if applicable].

AND

- sourced from a "Pest free area", "Pest free place of production" or "Pest free production site", free from regulated bacteria and viruses."

(iv) *Post-entry quarantine*

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

3.3 Iris plants in tissue culture from any country

(i) *Documentation*

Phytosanitary certificate: a completed phytosanitary certificate, issued by the national plant protection organisation (NPPO) of the exporting country, is required. **Import permit:** no import permit is required.

(ii) <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 of Agriculture and Forestry (MAF) have been undertaken.

The Iris plants in tissue culture have been:

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

AND

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

AND

- derived from parent stock tested using molecular/ serological methods [choose ONE option] and found free of *Iris severe mosaic virus*, *Iris yellow spot virus* and *Tobacco rattle virus*.

(iv) Additional declarations to the phytosanitary certificate

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

"The Iris plants in tissue culture have been derived from parent stock:

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

AND

- tested using molecular/ serological methods [choose ONE option] and found free of *Iris* severe mosaic virus, Iris yellow spot virus and Tobacco rattle virus."

(iv) Post-entry quarantine

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

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

Import permit: an import permit is required.

PEQ: Level 3

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

Pest List for Iris

REGULATED PESTS (actionable)

Insect	
Insecta	
Coleoptera	
Scarabaeidae	
Popillia japonica	Japanese beetle
Homoptera	
Pseudococcidae	
Aleyrodes spiraeoides [whole plants only]	-
Pseudococcidae	
Phenacoccus avenae	-
Phenacoccus emansor	-
Pseudococcus jackbeardsleyi [whole plants only]	Jack Beardsley mealybug
Rhizoecus palestineae	root mealybug
Lepidoptera	, ,
Hepialidae	
Hepialus humuli	ghost swift moth
Hepialus lupulinus	swift moth
Noctuidae	
Hydraecia micacea	potato stem borer
Macronoctua onusta	iris borer
Thysanoptera	
Thripidae	
Frankliniella iridis	iris thrips
Mite	
Arachnida	
Acarina	
Tarsonemidae	
Steneotarsonemus laticeps	bulb scale mite
Nematode	
Sacarnantaa	
Tylenchida	
Criconematidae	
Homicyclianhara tynica	sheath nematode
Dolichodoridao	Sheath hematode
Tylonchorbynchus gaudialis	_
Honlolaimidae	
Ratylenchus anodevi	spiral nematode
Meloidoguidae	spiral hematode
Meloidogyndae Meloidogyna arenaria	neanut root knot nematode
Meloidogyne arenana Meloidogyne ichinobei	
weloudy the leninoner	
Fundus	
Ascomucata	
Dethidoalos	
Lontosphaoriacoao	
Trematosnhaeria heterosnora	
l ontialos	
Sclerotiniaceae	
Rotryotinia convoluta (anamorph Rotrytis convollarias)	stom rot
Botriotinia convoluta (anamorph Dotrytic polyblactic)	fire disease
Scloratinia hulharum	hlack slima

Basidiomycota: Basidiomycetes	
Agaricales	
Tricholomataceae	
Armillaria mellea (anamorph Rhizomorpha subcorticalis)	armillaria root rot
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 rarmanica laaf strina virus	
lris sovoro mosaic virus	-
Iris severe mosaic virus	-
ins yenow spot virus Jananoso iris nocrotic ring virus	_
Japanese ins neuronic ring vilus Tabacco rattla virus [strains not in Now Taaland]	-
	-

NON-REGULATED PESTS (non-actionable)

Insect	
Colooptora	
Curculionidao	
Dhlyctinus callosus	handod fruit woovil
Silvanidae	
Abasyonus advona	foroign grain bootlo
Dintora	ioreigii grain beene
Symplideo	
Sylphilde	onion bulb fly
Lumerus sungalus Eumerus tuberculatus	lossor bulb fly
Eumenus luberculalus Morodon oguostris	narcissus bulb fly
Inerodon equesins	Halcissus buib liy
Aulacarthum circumflovum	mottled arum aphid
Aulaconthum caloni	fovalovo andid
Aulacultinutiti Sulatiti Ducenhia tulinee	tulin hulh anhid
Dysaphis luipae	tulip bulb aprild
Macrosiphum euphorbiae Matana dan biana diska dan bahada na anta anta	polalo aprilo
<i>Nietopolopnium airnoaum</i> (whole plants only)	rose-grain aprild
<i>Nyzus persicae</i> [whole plants only]	green peach aphid
Rhopalosiphum rutiabdominalis [whole plants only]	rice root aphid
Coccidae	
Coccus hesperidum [whole plants only]	brown soft scale
Pseudococcidae	
Rhizoecus falcifer	root mealybug
Vryburgia lounsburyi	lily bulb mealybug
Lepidoptera	
Pyralidae	
Plodia interpunctella	Indian meal moth
Thysanoptera	
Thripidae	
Thrips simplex [whole plants only]	gladiolus thrips
Mite	
Arachnida	
Acarina	
Acaridae	
Acarus siro	grain mite
Rhizoglyphus echinopus	bulb mite
Tvrophagus putrescentiae	mould mite
Ascidae	
Blattisocius dentriticus	common ascid mite
Proctolaelaps pygmaeus	-
Glycyphagidae	
Glycyphagus domesticus	house mite
Histiomidae	
Histiostoma feroniarum	damp mite
Tetranychidae	
Petrohia latens [whole plants only]	brown wheat mite
Nomatodo	
Socorpontos	
Julonchida	
I yitiiciilida Anhalanahaididaa	
Aphelencholdae	lo of nometada
Aphelencholdes blastophinofus	ADDIRMAN APPRIL
	fallen name ta da
Apholonoholdos ridgando	foliar nematode
Aphelenchoides ritzemabosi	foliar nematode foliar nematode

Aphelenchoides subtenuis	narcissus bulb and leaf nematode
Dolichodoridae	
Tylenchorhynchus maximus	-
Meloidogynidae	
Meloidogyne hapla	northern root knot nematode
Meloidogyne incognita	southern root knot nematode
Meloidogyne javanica	Javanese root knot nematode
Pratylenchidae	
Pratvlenchus penetrans	root lesion nematode
Tylenchidae	
Ditvlenchus destructor	potato rot nematode
Ditylenchus dipsaci	stem and bulb nematode
5	
Fungus	
Ascomycota	
Dothideales	
Mycosphaerellaceae	
Mycosphaerella macrospora (anamornh Cladosporium iridis)	leaf spot
Hypocreales	icui spot
Hypocreaceae	
Nectria haematococca (anamornh Eusarium solan)	fusarium fruit rot
	lusanum nuit fot
Sclerotiniaceae	
Botryatinia dravtoni (anamornh Botrytic aladiolorym)	hotrvotinia rot
Doli yolinia urayloni (anamorph Doli ylis giauloloruni) Potrivatinia fuckaliana (anamorph Patritis cinaraa)	arov mould
Seleratinia celeratiorum	gity mould
Dhullacharalas	Collony for
Phylide Horacoac	
Clemeralla cinquiata (anamorph Callotatrichum	anthrachasa
diomercia cingulata (anamorph conclounchum	anunaciose
yiueuspuriuues) Vularialaa	
Aylaliales Vulariação	
Ayidi lalede Decellinia nagatriy (anomorph Dometanhara nagatriy)	white reat ret
Rusellinila necalită (analitorphi Demalophora necalită)	while four for
Coratobasidialos	
Coratobasidiacoao	
Thanatanbarus cucumoris (anamornh <i>Phizoctonia solan</i>)	rhizoctonia rot
Storoalos	
Atheliaceae	
Athelia rolfsii (anamornh Sclarotium rolfsi)	Rolf's disease
Basidiomycota: Ustomycotas	
Platvaloeales	
Platyglocalca	
Holicohasidium nurnuroum (anamornh Dhizoctonia crocorum)	violet reat ret
Dythialog	
Dythiacaaa	
Dhytophthora cactorym	phytophthora crowp and root rot
Phylophinola Caciorum Dhylophthora bibornalic	citrus brown rot
Phytophiliora nicetianae	root and stom rot
Priylophiliola hicolianae Dythium dobaryanum	loak
Pythium irrogularo	nuthium root and stom rot
r yullulli litegulate mitosporie fungi (Hunhomycotos)	pythium root and Stern rot
Hyphomycotalos	
nypholitycetales Domatiacoao	
Demolaric iridic	
DIPUIdIIS IIIUIS Moniliaceae	-
	blact
BUILYIIS IUIIIJAA Tubaraylarialaa	DIASL
ruperculariaceae	

Fusarium oxysporum Fusarium oxysporum f. sp. gladioli	leaf spot fusarium wilt
Bacterium Enterobacteriaceae	
<i>Erwinia carotovora</i> subsp. <i>carotovora</i>	bacterial soft rot
Pseudomonadaceae	
Burkholderia gladioli pv. alliicola [whole plants only]	bacterial rot
Xanthomonas campestris pv. tardicrescens	bacterial blight
Virus	
Arabis mosaic virus	-
Bean yellow mosaic virus	-
Cucumber mosaic virus	-
Iris mild mosaic virus	-
Narcissus latent virus	-
Tobacco rattle virus [Paeonia and Narcissus infecting strains]	-
Tobacco ringspot virus	-

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

GENERAL CONDITIONS:

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

Quarantine Pests: *Erwinia quercina* pv. *rubrifaciens*; *Erwinia nigrifluens*; *Gnomonia leptostyla*; Walnut bunch/brooming disease; Walnut blackline; *Xylella fastidiosa*.

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

For Whole Plants and Tissue Culture:

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

Juniperus

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

GENERAL CONDITIONS:

Countries:	All	
Quarantine Pests:	Bursaphelenchus spp.; Lophodermium spp.; Uredinales	
Entry Conditions:	Basic;	with variations and additional conditions as specified below:

For Whole Plants:

PEQ:	Level 3
Minimum Period:	6 months

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

GENERAL CONDITIONS:

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

Quarantine Pests: Chrysomyxa ledi, Microsphaeria spp.; Phytophthora ramorum

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

A. For Cuttings and Whole Plants from Australia and Canada (these commodities may not be imported from other countries):

PEQ: Level 2

Minimum Period: 3 months

Additional Declarations:

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

OR

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

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

3. "The plants have been sourced from a "Pest free area", free from *Phytophthora ramorum*".

B. For Tissue Cultures:

Note: The entry conditions in 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:

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

Phymatotrichopsis omnivora; Uredinales **Quarantine Pests**:

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

A. For Whole Plants PEO: 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) _____ (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:

PEO: 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.

PEO: 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:

Note: The entry conditions in 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) <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 (MAF) have been undertaken.

The Lilium dormant bulbs have been:

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

AND

- sourced from a "Pest free area", "Pest free place of production" or "Pest free production site", free from regulated nematodes and fungi OR treated for regulated nematodes and fungi as described in section 2.2.1.7 of the basic conditions within 7 days prior to freezing, cold-storage or shipment.

AND

- sourced from a "Pest free area", "Pest free place of production" or "Pest free production site", free from regulated bacteria and viruses.

AND

- treated for regulated insects and mites as described in section 2.2.1.7 of the basic conditions within 7 days prior to freezing, cold-storage or shipment.
- AND
- held in a manner to ensure that infestation/reinfestation does not occur following certification.

(iii) Additional declarations to the phytosanitary certificate

If satisfied that the pre-shipment activities have been undertaken, the exporting country NPPO must confirm this by recording the treatments applied in the "Disinfestation and/or Disinfection Treatment" section, and by providing the following additional declaration to the phytosanitary certificate:
"The Lilium dormant bulbs in this consignment have been:

- sourced from a "Pest free area", "Pest free place of production" or "Pest free production site", free from regulated nematodes and fungi [if applicable].

AND

- sourced from a "Pest free area", "Pest free place of production" or "Pest free production site", free from regulated bacteria and viruses."

(iv) <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 MAF Inspector.

3.2 Lilium dormant bulbs from the Netherlands

(i) *Documentation*

Phytosanitary certificate: a completed phytosanitary certificate, issued by the national plant protection organisation (NPPO) of the exporting country, is required. **Import permit:** no import permit is required.

(ii) *Phytosanitary requirements*

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

The *Lilium* dormant bulbs have been:

- produced in accordance with the requirements of the Bloembollenkeuringsdienst (BKD) ALG bulb certification scheme.

AND

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

AND

sourced from a "Pest free area", "Pest free place of production" or "Pest free production site", free from regulated nematodes and fungi OR treated for regulated nematodes and fungi as described in section 2.2.1.7 of the basic conditions within 7 days prior to freezing, cold-storage or shipment.

AND

- sourced from a "Pest free area", "Pest free place of production" or "Pest free production site", free from regulated bacteria and viruses.

AND

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

(iii) Additional declarations to the phytosanitary certificate

If satisfied that the pre-shipment activities have been undertaken, the exporting country NPPO must confirm this by recording the treatments applied in the "Disinfestation and/or Disinfection Treatment" section, and by providing the following additional declaration to the phytosanitary certificate:

"The *Lilium* dormant bulbs in this consignment have been:

- produced in accordance with the requirements of the BKD Class ALG bulb certification scheme.
- AND
- sourced from a "Pest free area", "Pest free place of production" or "Pest free production site", free from regulated nematodes and fungi [if applicable].

AND

- sourced from a "Pest free area", "Pest free place of production" or "Pest free production site", free from regulated bacteria and viruses."

(iv) Post-entry quarantine

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

3.3 Lilium plants in tissue culture from any country

(i) *Documentation*

Phytosanitary certificate: a completed phytosanitary certificate, issued by the national plant protection organisation (NPPO) of the exporting country, is required. **Import permit:** no import permit is required.

(ii) Special tissue culture media requirements

The tissue culture media must not contain charcoal.

(iii) <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 (MAF) have been undertaken.

The *Lilium* plants in tissue culture have been:

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

AND

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

AND

- derived from parent stock tested using molecular/ serological methods [choose ONE option] and found free of *Apple stem grooving virus* and *Tobacco rattle virus*.

(iv) Additional declarations to the phytosanitary certificate

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

"The *Lilium* plants in tissue culture have been derived from parent stock:

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

AND

- tested using molecular/ serological methods [choose ONE option] and found free of *Apple stem grooving virus* and *Tobacco rattle virus*."
- (iv) Post-entry quarantine

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

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

Import permit: an import permit is required.

PEQ: Level 3

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

Pest List for *Lilium*

REGULATED PESTS (actionable)

Entimulary anulitiasciata Springtail Lepidoptera Springtail Viponomeutidae - Acrolepiopsis lilivora - Mite - Arachnida - Acarina - Acaridae - Schwiebea cuncta - Schwiebea taiwanensis - Tenuipalpidae - Brevipalpus Illum false spider mite Nematode - Adenophorea Dorylaimida Longidoridae - Ayphinema insigne dagger nematode Trichodorus spp. (except P. lobatus, P. minor, P. - paratrichodorus spp. (except T. christiei, T. cottieri, T. porosus, T. - primitivus) Secernentea - Tylenchida Meloidogyne sp. (except M. ardenensis, M. hapla, M. - Meloidogyne sp. (except M. ardenensis, M. hapla, M. - - Pratylenchidae Pratylenchidae - Pratylenchidae black tot black blotch Basidiomycota: Basidiomycetes armillaria root rot Auriculariaceae - - </th <th>Insect Insecta Collembola</th> <th></th>	Insect Insecta Collembola	
Lepidoptera Yponomeutidae Acrolepiopsis lilivora - Mite - Arachnida - Acarina - Acaridae - Schwiebea cuncta - Schwiebea taiwanensis - Tenuipalpidae - Brevipalpus lilium false spider mite Nematocle - Adenophorea - Dorytaimida - Longidoridae - Xiphinema insigne dagger nematode Trichodorus spp. (except P. lobatus, P. minor, P. - pachydermus, P. porosus) - Trichodorus spp. (except T. christiei, T. cottieri, T. porosus, T. - primitivus) Secernentea Tylenchida Meloidogynidae Meloidogynidae - Meloidogyneitae - Mycosphaerella martagonis black rot Basidiomycota: Basidiomycetes - Agaricales - Tricholomataceae - Auriculariales - Auricularialeles - <t< td=""><td>Entomobrya multifasciata</td><td>Springtail</td></t<>	Entomobrya multifasciata	Springtail
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Pucciniaceae Puccinia sporoboli (anamorph Aecidium lilii) Rust Uromyces aecidiiformis rust fungi	Dasiulomycola: Tellomyceles	
Puccinia sporoboli (anamorph Aecidium lilii) Rust Uromyces aecidiiformis rust fungi	Discriniareae	
Uromyces aecidiiformis rust fungi	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 Illii	black root rot
Phyllosticta liliicola	black rot
unknown Coelomycetes	Didontrot
unknown Coelomycetes	
Colletotrichum lilii	-
mitosporic fungi (Hyphomycetes)	
Hyphomycetales	
Moniliaceae	
Botrvtis hvacinthi	hvacinth blight
Ramularia vallisumbrosae	white mould
Tuberculariales	
Tuberculariaceae	
Fusarium oxysporum f. sp. lilii	basal rot
unknown Hyphomycetes	baoarrot
unknown Hyphomycetes	
Aureobasidium microstictum	-
Bacterium	
Entorohactoriacoao	
	-
Virue	
VIIUS	
Apple Stern grooving virus (strains not in new Zealand)	-
Lily mouth virus	
Lity TUSEUE VITUS	-
LIIY VIIUS A Tabagag rattle virus [strains not in Now Zeeland]	-
Tomato ringenet virus [Stidius fiul in New Zealand]	-
<i>romato myspot virus</i> [strains not in ivew Zealand]	-

NON-REGULATED PESTS (non-actionable)

Insect	
Insecta	
Coleoptera	
Anobiidae	
Lasioderma serricorne	cigarette beetle
Curculionidae	
Sitophilus oryzae	rice weevil
Silvanidae	
Oryzaephilus mercator	merchant grain beetle
Diptera	
Syrphidae	and an hall of a
Eumerus strigatus	onion buib fly
Merodon equestris	narcissus duid fly
Homoptera	
Aleyrodidae	are enhance whitefly
Andreuloues Vapolaliolulli	greenhouse whiteny
Aulasarthum airsumflowum	mattlad arum and id
Aulacol (num) cil cumilexum Ducenbie tulinee	mollied arum aphid
Dysapriis luiipae Desudococcidae	tulip bulb aprilu
Pseudococcus longispinus	longtailed mealybug
r seuuococcus iongispinus Viniburgia lounsburvi	lily bulb moalybug
l onidentora	illy buib mealybug
Duralidao	
Enhestia cautella	tropical warehouse moth
Thysanontera	a opical warehouse mour
Phlaeothripidae	
Linthrins vaneeckei	lilv bulb thrips
Thripidae	
Thrips simplex	gladiolus thrips
	g
Mite	
Arachnida	
Acarina	
Acaridae	
Caloglyphus mycophagus	-
Rhizoglyphies callae	bulb mite
Rhizoalvphus echinopus	bulb mite
Rhizoalvphus robini	bulb mite
Tyrophagus similis	-
Histiomidae	
Histiostoma feroniarum	damp mite
Nematode	
Adenophorea	
Dorylaimida	
Longidoridae	
Xiphinema diversicaudatum	European dagger nematode
Secementea	
Tylenchida	
Aphelenchoididae	
Aphelenchoides fragariae	foliar nematode
Aphelenchoides ritzemabosi	foliar nematode

Hoplolaimidae	
Rotylenchus robustus	spiral nematode
Pratylenchidae	•
Pratylenchus penetrans	root lesion nematode
Pratylenchus pratensis	root lesion nematode
Pratylenchus vulnus	root lesion nematode
Tylenchidae	
Ditylenchus dipsaci	stem and bulb nematode
Fungus	
Ascomycota	
Dothideales	
Botryosphaeriaceae	
Botryosphaeria rhodina (anamorph Lasiodiplodia theobromae)	Gummosis
Hypocreales	
Hypocreaceae	
Bionectria ochroleuca (anamorph Gliocladium roseum)	fusarium rot
Gibberella fujikuroi (anamorph Fusarium fujikuroi)	fusarium rot
Nectria haematococca (anamorph Fusarium solani)	fusarium fruit rot
Nectria radicicola (anamorph Cylindrocarpon destructans)	Rot
Leotiales	
Sclerotiniaceae	
Botryotinia fuckeliana (anamorph Botrytis cinerea)	grey mould
Sclerotinia sclerotiorum	cottony rot
Phyllachorales	5
Phyllachoraceae	
Glomerella cingulata (anamorph Colletotrichum	Anthracnose
gloeosporioides)	
Basidiomycota: Basidiomycetes	
Ceratobasidiales	
Ceratobasidiaceae	
Thanatephorus cucumeris (anamorph Rhizoctonia solani)	rhizoctonia rot
Stereales	
Atheliaceae	
Athelia rolfsii (anamorph Sclerotium rolfsii)	Rolf's disease
Basidiomycota: Ustomycetes	
Platygloeales	
Platygloeaceae	
Helicobasidium purpureum (anamorph Rhizoctonia crocorum)	violet root rot
Oomycota	
Pythiales	
Pythiaceae	
Phytophthora cactorum	phytophthora crown and root rot
Phytophthora cinnamomi	phytophthora crown and root rot
Phytophthora nicotianae	buckeye rot
Pythium splendens	basal stem and root rot
Pythium ultimum	Leak
Zygomycota: Zygomycetes	
Mucorales	
Mucoraceae	
Rhizopus stolonifer	rhizopus soft rot
mitosporic fungi (Coelomycetes)	
Sphaeropsidales	
Sphaerioidaceae	
Macrophomina phaseolina	ashy stem blight
unknown Coelomycetes	

unknown Coelomycetes <i>Colletotrichum dematium</i> mitosporic fungi (Hyphomycetes) Hyphomycetales	Anthracnose
Dematlaceae Thiolouioneic hasicola	black root rot
Moniliaceae	DIACK TOOL TOL
Botrytis elliptica	botrytis blight
Botrytis tulipae	Blast
Tuberculariales	
Tuberculariaceae	
<i>Fusarium oxysporum</i> f. sp. <i>narcissi</i>	basal rot
Bacterium Corynebacteriaceae Corynebacterium fascians	Fasciation
Virus	
Apple stem grooving virus [Malus infecting strain]	-
Arabis mosaic virus	-
Lily symptomless virus	-
Narcissus mosaic virus	-
Tobacco rattle virus [Paeonia and Narcissus infecting strains]	-
Tomato aspermy virus	-
Tomato ringspot virus [Grape yellow vein strain]	-
Tulip breaking virus (syn. Tulip mosaic virus)	-

Lithocarpus densiflorus

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

GENERAL CONDITIONS:

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

Quarantine Pests: Cronartium quercuum; Ceratocystis fagacearum; Tortricidae

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

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

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

Additional Declaration:

1. "*Ceratocystis fagacearum* is not known to occur in _____ (the country or state where the plants/cuttings were grown) _____".

OR (for cuttings)

"The tree(s), from which this material was taken, was inspected during the previous growing season and no *Ceratocystis fagacearum* was detected".

OR (for young plants)

"The plants were inspected during the previous growing season and no *Ceratocystis fagacearum* was detected".

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

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

B. For Tissue Cultures:

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

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

GENERAL CONDITIONS:

Countries: Australia

Quarantine Pests: Aceria litchii; Xyloryctidae (Lepidoptera)

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

A. For Whole Plants:

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

Additional Declaration:

"The plants were grown on a nursery that has been inspected for the presence of *Aceria litchii* and members of the Xyloryctidae and none were found".

B. For Tissue Cultures:

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

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:

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

Malus

Scientific name	Commodity Sub-class	Date Issued
Malus sylvestris var. domestica	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 *Mangifera*", and are additional to those specified in sections 1, 2 and 3 of the import health standard.

GENERAL CONDITIONS:

Countries: Australia, India, Pakistan, Mexico, Philippines

Quarantine Pests: Xanthomonas campestris pv. mangiferae-indicae

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

For Whole Plants and Tissus Culture:

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

Additional Declaration:

"Xanthomonas campestris pv. mangiferae-indicae is not known to occur in _____ (the country or state where the plants were grown) ______".

OR

"The plants were inspected during the growing season and no *Xanthomonas campestris* pv. *mangiferae-indicae* was detected".

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

GENERAL CONDITIONS:

Countries: All

Quarantine Pests: Cosmopolites sordidus; Fusarium oxysporum f.sp. cubense; Mycosphaerella fijiensis; Pseudomonas solanacearum; Radopholus similis; Bunchy top virus

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

A. For Whole Plants:

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

B. For Tissue Cultures:

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

PLUS

Additional Declaration:

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

Nandina

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

GENERAL CONDITIONS:

Countries: All

Quarantine Pests: Bamboo mosaic virus

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

A. For Whole Plants:

PEQ:Level 2Minimum Period:3 months

Additional Declaration:

"Bamboo mosaic virus is not known to occur in _____ (the country or state where the plants were grown) _____".

OR

"The plants have been inspected during the growing season and no bamboo mosaic virus was detected".

B. For Tissue Cultures:

PEQ:Level 2Minimum Period:3 months

Additional Declaration:

"The cultures have been derived from parent stock tested and found free of bamboo 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:

Countries: All

Quarantine Pests: Frankliniella occidentalis; Hepialus lupulinus; Lilioceris lilii; Pratylenchus scribneri; Ramularia vallisumbrosae; Sclerotinia polyblastis; Steneotarsonemus laticeps; virus diseases.

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

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

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

OPTION 1: No import permit is required. PEQ: None Additional Declaration(s):

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

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

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

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

OPTION 2: PEQ: Level 1 **Minimum Period:** 3 months C. For Dormant Bulbs from Countries <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 hulbs in this as

"The dormant bulbs in this consignment have been:

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

AND

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

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

D. For Tissue Cultures:

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

Additional Declaration:

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

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

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

Cuttings (dormant); Plants in tissue culture

2. Pests of Olea

Refer to the pest list.

3. Entry conditions for:

3.1 Olea cuttings and tissue culture from any country

(i) *Documentation*

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

(ii) Phytosanitary requirements

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

The Olea cuttings / plants in tissue culture [choose ONE option] have been:

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

AND

- treated for regulated insects and mites as described in section 2.2.1.6 of the basic conditions within 7 days prior to shipment [cuttings only].

AND

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

(iii) Additional declarations to the phytosanitary certificate

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

(iv) Special tissue culture media requirements

The tissue culture media must not contain charcoal.

(v) *Post-entry quarantine*

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

Quarantine Period and Inspection, Testing and Treatment Requirements: The nursery stock will be grown for a minimum period of 12 months in post-entry quarantine and will be inspected, treated and/or tested for regulated pests as specified in the "Inspection, Testing and Treatment Requirements for *Olea*", at the expense of the importer. Twelve months is an indicative minimum quarantine period and this period may be extended if material is slow growing, pests are detected, or treatments/testing are required.

Pest List for Olea

REGULATED PESTS (actionable)

Insect Insecta Insecta Coccidae Saissetia privigna Coleoptera Attelabidae Rhynchites cribripennis Buprestidae Anthaxia ariadna Scolytidae Hylesinus fraxini Hylesinus oleiperda Hylesinus toranio Phloeotribus oleae Phloeotribus scarabaeiodes Xylosandrus compactus Diptera Cecidomyiidae Thomasiniana sp. Asterolecaniidae Pollinia pollini Coccidae Ceroplastes rusci Lichtensia viburni Metaceronema japonica Diaspididae Aonidomytilus espinosai Hemiberlesia palmae Leucaspis riccae Lindingaspis ferrisi Parlatoria oleae Pseudaulacaspis pentagona Selenaspidus articulatus Lepidoptera Pyralidae Euzophera pinguis

Mite

Arachnida Acarina Eriophyidae Aceria cretica Aceria oleae Aculops benakii Aculus olearius Ditrymacus athiasellus Eriophyes oleae Eriophyes olivi Oxycenus maxwelli Oxycenus niloticus Oxycenus noloticus Tegonotus hassani black scale

twig cutter

wood-boring beetle

bark beetle bark beetle bark beetle bark beetle bark beetle black twig borer

olive bark midge

globe shaped olive scale

fig wax scale scale scale insect

scale palm scale scale scale olive scale white peach scale West Indian red scale

bark borer

mite olive mite olive yellow spot mite olive mite olive bud mite olive bud mite olive leaf and flower mite

Tenuipalpidae	
Brevipalpus chalkidicus	false spider mite
Brevipalpus macedonicus	false spider mite
Brevipalpus oleae	false spider mite
Brevipalpus olearius	false spider mite
Brevipalpus olivicola	false spider mite
Raoiella macfarlanei	false spider mite
Tenuipalpus caudatus	false spider mite
Tetranychidae	·
Eotetranychus lewisi	big beaked plum mite
Fundus	
Ascomycota	
Dothideales	
Cannodiaceae	
Cannodium elaeonhilum	sooty mould
Flsingaceae	Sooty mould
Elsinoaceae	olivo scab
Linknown Dathideales	
Massarialla alaga	hark cankor
Massariolla zambottakiana	cankor
iviassantila zamutalanana Zukalia purpuraa	black mildow
Zukalla pulpulea Vularialos	
Xylariacaaa	
Xylaria sicula	root rot
Basidiomycota	1001101
Agaricales	
Anaricaceae	
Armillaria mellea (anamornh Rhizomornha subcorticalis)	armillaria root rot
Rolotales	
Pavillaceae	
Amnhalatus alearius	wood rot
Canodormatalos	woou fot
Ganodermataceae	
Canoderma lucidum (anamornh Polynorus lucidus)	wood rot
Hymenochaetales	woou for
Hymenochaetaceae	
Phellinus igniarius	wood rot
Poriales	
Coriolaceae	
Fomes fomentarius	wood decay
Fomes fully is	wood rot
Fomes salicinus	wood rot
Fomes torulosus	wood rot
Fomes vuratonensis	wood rot
Polyporaceae	wood for
Polynorus hiennis	wood rot
Polyporus oleae	wood rot
Storeales	wood for
Sistotremataceae	
Trechisnora brinkmanii (anamornh Phymatotrichonsis omnivorum)	Texas root rot
Mitosporic Fungi (Coelomycetes)	10/03/100/10/
Snhaeronsidales	
Sphaerioidaceae	
Camarosporium dalmatica	hrown spot
Cytosnora oleina	canker
Macronhoma dalmatica	fruit rot
Phoma incomnta	stem hlight
Phyllosticta oleae	nhvllosticta leaf soot
Sentoria obesa	leaf snot
	ical spot

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

NON-REGULATED PESTS (non-actionable)

Insect	
Insecta	
Coccidae	
Saissetia coffeae	hemispherical scale
Saissetia oleae	black scale
Diaspididae	
Aonidiella aurantii	California red scale
Aspidiotus nerii	oleander scale
Hemiberlesia lataniae	latania scale
Lepidosaphes ulmi	oystershell scale
Lindingaspis rossi	Ross' black scale
Margarodidae	
Icerva purchasi	cottony cushion scale
	,
Mite	
Arachnida	
Acarina	
Frionhvidae	
Phyllocontruta oleivora	citrus rust mite
Tenuinalnidae	
Brevinalnus nhoenicis	nassionvine mite
Dievipaipus prioenicis	
Fundus	
Ascomycota	
Dothidoalos	
Dominueales	
Potryosphaeria dathidaa (anamorph Eusicaccum aascul)	cankor
Enciphalos	Calikei
Envernhaces	
Li ysipilateat Lovoillula taurica (anomorph Oidiancia cicula)	nowdory mildow
Eurotialas	powdery mildew
Trichocomaccas	
Function berberierum (enemerne Accorrillus aleueus)	mould
Eurolium nerbanorum (anamorph Asperginus giaucus)	moulu
Rypocreaceae	fucarium stam conker
Gibberella avenacea (anamorph Fusarium avenaceum)	
Gibbereila lujikurol (anamorph Fusarium adan)	IUSAIIUM IOL
Nectha haemalococca (anamorph Fusahum solahi)	iusanum iruit rot
Phyllachorales	
Phyliacholaceae	hittor rot
Giomerena cingulata (anamorph Conetornethum gioeosponoides)	
Saccharomycetales	
Dipodascaceae	a a un nat
Dipodascus geotricnum (anamorph Geotricnum candidum)	Sour rol
Xylariales	
Xylariaceae	a letter we et wet
Roseilinia necatrix (anamorph <i>Dematophora necatrix</i>)	white root rot
Basiciomycota	
Hymenochaetales	
Hymenochaetaceae	h a ant nat
Phelinus punctatus	neart rot
Portales	
Coriolaceae	
i rametes versicolor	white rot

Schizophyllales	
Schizophyllaceae	
Schizophyllum commune	agaric stem rot
Stereales	
Alnellaceae	Dalfa diagoog
Alnella rollsli (anamorph <i>Scierollum rollsli</i>)	Roll's disease
Stereaceae	blook moooloo
Stereum nirsuum	DIACK MEASIES
Subservensideles	
Sphaeropsidaes	
Sphaenoluaceae	achy stom blight
Macropholinina priaseonna	ashy stem blight
Unknown Coolomycetes	
Collototrichum acutatum	anthrachasa
Mitosporis Eungi (Hyphomycotos)	anniachose
Hunhomycotalos	
Domatiacoao	
Mycacantraspara cladosporioidos	fruit spot
Spilocana ploaginga	norcock spot
Moniliacoao	peacock spot
Asporaillus pigor	asporaillus rot
Aspergilius niger Donicillium chrycogonym	asperginus rot
Perilcillium chi ysogenum Donicillium ovnansum	blue mould ret
Perilcillium albo atrum	vorticillium wilt
Verticillium dabliae	verticillium wilt
Tuborcularialoc	
	loof chot
Fusarium roccum	leal spot
Fusallulli Tuseulli Unknown Hynhomycotos	Tusanum Tot
Unknown Hyphomycetes	
	nink rot
nichounecium ioseum Domusoto	ριτικ τοι
Duthialoc	
Pythiacoao	
Phytophthora cambiyora	
Phylophillola Callibivola Dhytophthora cinnamomi	- nhytanhthara crown and root rat
	phytophiliora crown and root rot
Zygoniycold. Zygoniyceles Mucoralos	
Mucoracoao	
Dhizonus stalonifor	rhizopus soft rot
RTIZOPUS SIOIOTIITEI	Thizopus solt fot
Dactorium	
Dacieliuli	
Pseudomonadaceae	aliva knot
Pseudomonas savastanoi pv. nerii	
Pseudomonas savastanoi pv. savastanoi Deletenie eelemeeeerum	OIIVE KNOL
Raisionia solanacearum	Dacterial Will
Rnizoblaceae	
Agrobacterium tumeraciens	crown gall
Virus	
Arabis mosaic virus	-
Cherry leaf roll virus [red raspberry strain]	-
Cucumber mosaic virus	-
Strawberry latent ringspot virus [Prunus-infecting strain]	-

Inspection, Testing and Treatment Requirements for Olea

ORGANISM TYPES	MAF-ACCEPTED METHODS (See notes below)
Insects	Visual inspection AND approved insecticide treatments (Refer to
	section 2.2.1.6 of the basic conditions) [cuttings only].
Mites	Visual inspection AND approved miticide treatments (Refer to
	section 2.2.1.6 of the basic conditions) [cuttings only] or binocular
	microscope inspection in PEQ [plants in tissue culture only].
Fungi	Growing season inspection in PEQ for disease symptom expression.
Bacterium	
Pseudomonas syringae pv.	Growing season inspection in PEQ for disease symptom expression.
garcae	
Virus	
Cherry leaf roll virus [strains	ELISA or PCR AND herbaceous indicators Ca, Cq and Nb AND
not in New Zealand]	TEM.
Olive latent 1 virus	Herbaceous indicators Ca, Cq and Nb AND TEM.
Olive latent 2 virus	Herbaceous indicators Ca, Cq and Nb AND TEM.
Olive latent ringspot virus	Herbaceous indicators Ca and Cq AND TEM.
Olive leaf yellowing-associated	TEM.
virus	
Olive vein yellow virus	TEM.
Strawberry latent ringspot virus	ELISA or PCR AND herbaceous indicators Ca and Cq AND TEM.
[strains not in New Zealand]	
Phytoplasmas	Woody indicators AND PCR using the universal phytoplasma
	fU5/rU3 primers (Lorenz et al. 1995) AND R16F2n/R16R2 primers
	(Gundersen et al. 1996).
Diseases of unknown aetiology	Growing season inspection in PEQ for disease symptom expression.

Notes:

- 1. The unit for testing is an individual plantlet or cutting. Each single plantlet and cutting must be labelled individually and tested separately.
- 2. Transmission electron microscopy (TEM) each plant must be observed under the TEM for virus particles.
- 3. Indicator hosts: *Chenopodium amaranticolor* (Ca), *Chenopodium quinoa* (Cq), and *Nicotiana benthamiana* (Nb). At least two plants of each indicator species must be used in mechanical inoculation tests.
- 4. Indicator plants must be grown under appropriate temperatures and must be shaded for 24 hrs prior to inoculation. Maintain post-inoculated indicator species under appropriate glasshouse conditions for at least 4 weeks. Inspect inoculated indicator plants at least twice per week for symptoms of virus infection.
- 5. Enzyme linked immunosorbent assay (ELISA); Polymerase chain reaction (PCR).
- 6. Testing must be carried out on *Olea* plants while they are in active growth. For bioassay and ELISA, plants shall be sampled from at least two positions including a young, fully expanded leaf at the top of the plant and an older leaf from a midway position.
- 7. PCR and ELISA must be validated using positive controls/reference material prior to use in quarantine testing.
- 8. Positive and negative controls must be used in ELISA tests.

- 9. Positive and negative controls (including a blank water control) must be used in PCR. Ideally positive internal controls and a negative plant control should be used. Internal controls in PCR tests are important to avoid the risk of false negatives.
- 10. Inspect *Olea* plants for signs of pest and disease at least twice per week during periods of active growth and once per week during dormancy.
- 11. With prior notification, MAF will accept other internationally recognised testing methods.

References

- Gundersen, D.E., Lee, I.M. 1996. Ultrasensitive detection of phytoplasmas by nested-PCR assays using two universal primer pairs. *Phytopathologia Mediterranea* 35: 144-151.
- Lorenz, K.H., Scheider, B., Ahrens, U., Seemuller, E. 1995. Detection of the Apple proliferation and Pear decline phytoplasmas by PCR Amplification of ribosomal and nonribosomal DNA. *Phytopathology* 85: 771-776.

Paeonia (herbaceous species)

Note: These entry conditions only apply to species in the Plants Biosecurity Index listed under Import Specifications for Nursery Stock as "see 155.02.06 under *Paeonia* (herbaceous)".

GENERAL CONDITIONS:

Countries:	Australia, Austria, Belgium, Denmark, Finland, France, Germany, Greece, Ireland, Italy, Luxembourg, The Netherlands, Portugal, Spain, Sweden, United Kingdom, United States of America
Quarantine Pests:	Cronartium flaccidium; Phymatotrichopsis omnivora
Entry Conditions:	Basic; with variations and additional conditions as specified below:

For Dormant Tubers:

PEQ:Level 1 or Level 2 (see below)**Minimum Period:**3 months

Additional Declaration(s):

1. "The dormant tubers have been sourced from a "Pest free area" or "Pest free place of production", free from *Cronartium flaccidium*".

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

OR

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

AND

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

AND

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

Paeonia (tree species)

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

GENERAL CONDITIONS:

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:

Countries: All

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

Import permit: an import permit is required. Before applying for an import permit, the importer must obtain written approval to import from:

Director General of Health Ministry of Health PO Box 5013 Wellington Attention: Advisor, Controlled Drug Licensing

Telephone: 04 496 2438

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

GENERAL CONDITIONS:

Countries: Australia

Quarantine Pests: Witches broom phytoplasma

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

A. For Whole Plants:

PEQ: Level 2

Minimum Period: 3 months

Additional Declaration:

"Witches broom phytoplasma is not known to occur in _____ (the country or state where the plants were grown) _____".

B. For Tissue Cultures:

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

Additional Declaration:

"The cultures have been derived from parent stock tested and found free of Witches broom phytoplasma".

Note: The entry conditions in 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) <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 MAF have been undertaken.

The Persea cuttings / plants in tissue culture [choose ONE option] have been:

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

AND

- sourced from a "Pest free area" or "Pest free place of production", free from *Avocado cryptic virus 3*, *Potato spindle tuber viroid* and Avocado black streak disease.

AND

- treated for regulated insects and mites as described in section 2.2.1.6 within 7 days prior to shipment [cuttings only].

AND

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

(iii) Additional declarations to the phytosanitary certificate

If satisfied that the pre-shipment activities have been undertaken, the exporting country NPPO must confirm this by recording the treatments applied in the "Disinfestation and/or Disinfection Treatment" section [cuttings only] and by providing the following additional declaration to the phytosanitary certificate:

"The *Persea* cuttings / plants in tissue culture [choose ONE option] have been:

- sourced from a "Pest free area" and/or a "Pest free place of production", free from *Avocado cryptic virus 3, Potato spindle tuber viroid* and Avocado black streak disease."

(iv) Post-entry quarantine

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

Quarantine Period and Inspection, Testing and Treatment Requirements: The nursery stock will be grown for a minimum period of 12 months in post-entry quarantine and will be inspected, treated and/or tested for regulated pests as specified in the "Inspection, Testing and Treatment Requirements for *Persea*", at the expense of the importer. Twelve months is an indicative minimum quarantine period and this period may be extended if material is slow growing, pests are detected, or treatments/testing are required.

Pest List for Persea

REGULATED PESTS (actionable)

Insect Insecta Coleoptera 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

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

Triaza parcaga	povilid
11102a perseae	psylliu
Hymenoptera	
Formicidae	
Atta cephalotes	leaf-cutting ant
Lepidoptera	
Geometridae	
Ascotis selenaria	mugwort looper
Sabulodes aegrotata	omnivorous looper
Hesperiidae	
Pyrrhopyge chalybea	swift moth
Noctuidae	
Peridroma margaritosa	-
Prodenia eridania	_
Pseudonlusia includens	sovbean looper
A seduopiusia includens	Soybean looper
Stonoma catonifor	stonomid moth
Duralidaa	Stehomia motin
ryidilude	Christmas harry webwerm
Cryptoblabes grittella Stariata alkifaggiata	Chirstinas beiry webworni
Stericta albitasciata	-
Iortricidae	
Amorbia cuneana	leatroller
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
Platvnota stultana	omnivorous leafroller
Thysanoptera	
Thrinidae	
Retithrins svriacus	black vine thrins
Selenothrins ruhrocinctus	red-handed thrins
Scicholimps rubiocinclus	red banded timps
Mite	
Arachnida	
Aracinida	
Aldilla	
Oligonycnus cotteae	lea red spider mile
Oligonychus perseae	spider mite
Oligonychus punicae	avocado brown mite
Oligonychus yothersi	avocado red mite
Funduo	
Fungus	
Ascomycota	
Hypocreales	
Hypocreaceae	
Nectria pseudotrichia (anamorph Tubercularia lateritia)	canker
Phyllachorales	
Phyllachoraceae	
Glomerella cingulata var. minor (anamorph Colletotrichum	anthracnose
<i>gloeosporioides</i> var. <i>minus</i>)	
Xylariales	
Xylariaceae	
Rosellinia bunodes	-
Rosellinia pepo	-

Oomycota Pythiales	
Pythiaceae	
Phytophthora palmivora	black rot
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	-
Virus	
Avocado cryptic virus 3	-
Viroid	
VII UIU	
Avocado sundiolich viroid [strains not in New Zealand]	-
Polalo spinale luber virola	-
Disease of unknown actiology	
Avocado black streak	_

NON-REGULATED PESTS (non-actionable)

Insect	
Insecta	
Coleoptera	
Curculionidae	E diada ana ang ang ang ang
Asynonycnus cervinus	Fuller's rose weevil
Hemiptera	
	aroon voastable bua
Nezara Virioura	green vegelable bug
Homoplera	
Aleyrodiae	are and a use whiteful
Inaleurodes vaporanorum	greennouse whitely
	aattan anhid
Aprilis gussypii Aprilis apricasagla	collon aprilo
Aprils spiraecola	spirea apnid
Ceropiastes ceriferus	Indian white wax scale
	while wax scale
Coccus nesperiaum	brown soft scale
Parasaissetia nigra	nigra scale
	European fruit scale
Saissetia correae	nemispherical scale
Saissetia oleae	black scale
Aonidiella aurantil	California red scale
Aspiaiotus nerii	oleander scale
Hemiberiesia lataniae	latania scale
Hemiberiesia rapax	greedy scale
Pseudococcidae	
Pseudococcus calceolariae	citrophilus mealybug
Pseudococcus longispinus	longtailed mealybug
Inysanoptera	
Inripidae	
Heliothrips haemorrhoidalis	greennouse thrips
MITE	
Arachnida	
Acarina	
Phytoseiidae	
Amblyseius limonicus [Animals Biosecurity]	-
larsonemidae	
Polyphagotarsonemus latus	broad mite
letranychidae	
Eotetranychus sexmaculatus	sixspotted mite
-	
Fungus	
Ascomycota	
Dothideales	
Botryosphaeriaceae	
Botryosphaeria dothidea (anamorph Fusicoccum aesculi)	canker
Botryosphaeria obtusa (anamorph Sphaeropsis malorum)	blight
Botryosphaeria parva (anamorph Fusicoccum parvum)	canker
Botryosphaeria rhodina (anamorph Lasiodiplodia theobromae)	gummosis
Hypocreales	
Hypocreaceae	
Calonectria kyotensis (anamorph Cylindrocladium scoparium)	root and stem rot
Xylariales	
Xylariaceae Rosellinia necatrix (anamorph Dematophora necatrix)	white root rot
--	---------------------------------
Pythiales	
Pythiaceae	
Phytophthora cinnamomi	phytophthora crown and root rot
mitosporic fungi (Coelomycetes)	
Sphaeropsidales	
Sphaerioidaceae	
Dothiorella aromatica	stem-end rot
Fusicoccum luteum	bunch rot
Nattrassia mangiferae	stem-end rot
unknown Coelomycetes	
unknown Coelomycetes	
Colletotrichum acutatum	anthracnose
Pestalotiopsis versicolor	pestalotiopsis rot
Sphaceloma perseae	scab
mitosporic fungi (Hyphomycetes)	
Hyphomycetales	
Dematiaceae	
Cladosporium cladosporioides	cladosporium leaf spot
Moniliaceae	
Verticillium dahliae	verticillium wilt
Destavium	
Bacterium	
Pseudomonadaceae	
Pseudomonas syringae pv. syringae	bacterial soft rot
Rnizobiaceae	
Rnizodium radiodacter	crown gail
Virus	
Tobacco mosaic virus	
TODALLO MOSAIL VILUS	-
Viroid	
Avocado supplotch viroid [mild strain]	_
Alga	
Chlorophyta	
Trentepohliales	
Chroolepidaceae	
Cephaleuros virescens	algal leaf spot
,	J - 11 - 1

Inspection, Testing and Treatment Requirements for Persea

ORGANISM TYPES	MAF-ACCEPTED METHODS (See notes below)
Insects	Visual inspection AND approved insecticide treatments (Refer to section 2.2.1.5 of the basic conditions) [cuttings only].
Mites	Visual inspection AND approved miticide treatments (Refer to section 2.2.1.5 of the basic conditions) [cuttings only] or binocular microscope inspection in PEQ [plants in tissue culture only].
Fungi	Growing season inspection in PEQ for disease symptom expression.
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 (Schnell et al. 1997) (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 an individual plantlet or cutting. Each single plantlet and cutting must be labelled individually and tested separately.
- 2. Testing must be carried out on *Persea* plants while they are in active growth.
- 3. Polymerase chain reaction (PCR), Polyacrylamide gel electrophoresis (PAGE) and hybridisation must be validated using positive controls prior to use in quarantine testing. Positive and negative controls (including a blank water control) must be used in molecular tests. Ideally positive internal controls and a negative plant control should be used.
- 4. Inspect *Persea* plants for signs of pest and disease at least twice per week during periods of active growth and once per week during dormancy.
- 5. With prior notification, MAF will accept other internationally recognised testing methods.

References

Schnell RJ, Kuhn DN, Ronning CM, Harkins D (1997). Application of RT-PCR for indexing avocado sunblotch viroid. *Plant Disease* B: 1023-1026.

Philodendron

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

GENERAL CONDITIONS:

Countries: All

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

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

B. For Plants in Tissue Culture:

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

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

GENERAL CONDITIONS:

Countries:	Australia, H	awaii, mainland USA
Quarantine Pests:	Lethal yellowing; cadang-cadang; Fusarium wilt	
Entry Conditions:	Basic;	with variations and additional conditions as specified below:
PEQ: Minimum Period:	Level 2 3 months	

Plants must not exceed 1.5m in height

Additional Declaration:

Height Limit:

"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) _____."

Photinia

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

GENERAL CONDITIONS:

Countries: All

Quarantine Pests: Gymnosporangium spp.

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

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

Additional Declarations:

1. "Gymnosporangium spp. are not known to occur on ______ (name of plant species) ______ in

_____(the country or state where the plants were produced) ______'.

OR

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

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

B. For Tissue Cultures:

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

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

GENERAL CONDITIONS:

Countries: All

Quarantine Pests: Elm mosaic virus, Elm phloem necrosis

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

For Whole Plants and Tissue Cultures:PEQ:Level 3Minimum Period:3 months

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

GENERAL CONDITIONS:

Countries: All

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

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

B. For Plants in Tissue Culture:

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

Poncirus

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

2. Pests of *Poncirus*

Refer to the pest list.

3. Entry conditions for:

3.1 Poncirus cuttings from offshore MAF-accredited facilities (quarantine stations)

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

(i) *Documentation*

Import permit is required

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

(ii) Inspection, Testing and Treatments of the consignment

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

(iii) *Phytosanitary requirements*

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

The *Poncirus* cuttings have been:

- inspected in accordance with appropriate official procedures and found to be free of any visually detectable regulated pests specified by MAF (refer to the pest list). 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 MAFaccredited 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 MAF, and to conform with New Zealand's current phytosanitary requirements.

AND

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

AND

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

AND

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

(v) *Post-entry quarantine*

PEQ: Level 2

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

3.2 Poncirus cuttings from non-accredited facilities in any country

(i) *Documentation*

Import permit is required

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

(ii) *Phytosanitary requirements*

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

The *Poncirus* cuttings have been:

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

(iii) Additional declarations to the phytosanitary certificate

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

"The *Poncirus* cuttings in this consignment have been:

inspected in accordance with appropriate official procedures and found to be free

of any visually detectable regulated pests specified by MAF, and to conform with the current phytosanitary requirements of MAF."

(iv) Inspection, Testing and Treatments of the consignment

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

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

(v) *Post-entry quarantine*

PEQ: Level 3

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

3.3 Poncirus plants in tissue culture from offshore MAF-accredited facilities

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

(i) *Documentation*

Import permit is required

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

(ii) <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 MAF and the accredited facility operator. Refer to *Poncirus* Inspection, Testing and Treatment Requirements following the *Poncirus* pest list.

(iv) *Phytosanitary requirements*

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

The *Poncirus* tissue culture have been:

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

AND

held and tested for/classified free from specified regulated pests at a MAFaccredited facility and,

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 *Poncirus* tissue culture in this consignment have been:

- inspected in accordance with appropriate official procedures and found to be free of any visually detectable regulated pests specified by MAF, and to conform with New Zealand's current phytosanitary requirements.

AND

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

AND

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

(vi) *Post-entry quarantine*

PEQ: Level 2

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

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

(i) *Documentation*

Import permit is required

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

(ii) <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) *Phytosanitary requirements*

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

The *Poncirus* tissue culture have been:

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

(iv) Additional declarations to the phytosanitary certificate

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

"The *Poncirus* tissue culture in this consignment have been:

- inspected in accordance with appropriate official procedures and found to be free of any visually detectable regulated pests specified by MAF, and to conform with the current phytosanitary requirements of MAF."

(v) Inspection, Testing and Treatments of the consignment

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

(vi) Post-entry quarantine

PEQ: Level 3

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

Pest List for Poncirus

REGULATED PESTS (actionable)

Insect Insecta Coleoptera Bostrichidae Apate indistincta Apate terebrans **Buprestidae** Agrilus alesi Agrilus auriventris Cerambycidae Anoplophora malasiaca Chelidonium gibbicolle Dihammus vastator Melanauster chinensis Paradisterna plumifera Promeces linearis Skeletodes tetrops Strongylurus thoracicus Uracanthus cryptophagus Chrysomelidae Colasposoma fulgidum Colasposoma scutellare Geloptera porosa Luperomorpha funesta Monolepta australis Sebaethe fulvipennis 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] Rhvzobius 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 Dereodus recticollis Diaprepes abbreviatus Diaprepes spp. Eutinophaea bicristata Leptopius squalidus Naupactus xanthographus Otiorhynchus cribricollis Pachnaeus citri Pachnaeus litus Perperus lateralis Prepodes spp.

shot-hole borer shot-hole borer

flatheaded citrus borer citrus flatheaded borer

white-spotted longicorn beetle

fig longhorn

speckled longicorn

longhorn beetle pittosporum longicorn citrus branch borer

bluegreen citrus nibbler

pitted apple beetle mulberry flea beetle red-shouldered leaf beetle flea beetle

two-banded Japanese weevil

citrus weevil

citrus leaf-eating weevil fruit tree root weevil fruit tree weevil cribrate weevil

citrus root weevil white-striped weevil

Protostrophus avidus weevil Sciobius marshalli Sympiezomias lewisi Lucanidae Prosopocoilus spencei Scarabaeidae Hypopholis indistincta Maladera matrida Scolytidae Salagena sp. Xylosandrus germanus Diptera Cecidomyiidae Contarinia citri Contarinia okadai Trisopsis sp. Chamaemyiidae Leucopis alticeps [Animals Biosecurity] Drosophilidae Drosophila paulistorum Drosophila pseudoobscura Drosophila simulans Drosophila willistoni Tephritidae Dirioxa pornia Hemiptera Anthocoridae Orius thripoborus [Animals Biosecurity] Thriphleps thripoborus [Animals Biosecurity] Coreidae Acanthocoris striicornis Anoplocnemis curvipes Leptoglossus membranaceus Mictis profana Paradasynus spinosus Veneza phyllopus Lygaeidae Nysius vinitor Miridae Austropeplus sp. Pentatomidae Antestia variegata Antestiopsis orbitalis Antestiopsis variegata Biprorulus bibax Glaucias subpunctatus Halyomorpha mista Musgraveia sulciventris Plautia stali Rhynchocoris humeralis **Unknown Hemiptera** Holopterna vulga bug Homoptera Aleyrodidae Aleurocanthus citriperdus whitefly Aleurocanthus spiniferus Aleurocanthus spp. Aleurocanthus woglumi citrus blackfly spiralling whitefly Aleurodicus dispersus Aleurolobus marlatti Marlatt whitefly

citrus snout beetle scarab beetle scarab beetle alnus ambrosia beetle leafcurling midge citrus flower gall midge island fruit fly larger squash bug coreid bug coreid bug crusader bug squash bug leaf-footed bug Rutherglen bug citrus blossom bug antestia bug antestia bug spined citrus bug polished green stink bug brown-marmorated stink bug bronze orange bug oriental stink bug pentatomid bug orange spiny whitefly whiteflies

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 yellow 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

Manella connecta (Animais Biosecunity)	-
Marietta leopardina [Animals Biosecurity]	-
Braconidae	
Apanteles aristotalilae [Animals Biosecurity]	-
Biosteres longicaudatus [Animals Biosecurity]	-
Pholetesor orniais [Animals Biosecurity]	-
Encyrtidae	
Anicetus beneficus [Animals Biosecurity]	-
Comperiella hifasciata [Animals Biosecurity]	_
Habrolonis rouvi [Animals Biosocurity]	_
Lentomastiv dactulonii [Animals Biosecurity]	narasitic wasn
Motanhycus holyolus [Animals Biosocurity]	
Motanhycus Iutoolus [Animals Diosecunty]	-
Metaphycus iuteoius [Animals Diosecurity]	-
Metaphycus stalileyi [Animals Dioseculity]	-
Nielaphycus valius (Animais Biosecunity)	-
<i>Psyllaephagus pulvinalus</i> [Animais Biosecunity]	-
Europhidae	
Aprostocetus ceropiastae (Animais Biosecurity)	-
Elachertus fenestratus [Animals Biosecurity]	-
<i>Tamarixia radiatus</i> [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	-
Crematonaster castanea	-
Crematogaster lienamei	_
Crematogaster neringuevi [Animals Biosecurity]	cocktail ant
Lenisiota canensis [Animals Riosecurity]	-
Myrmicaria natalonsis	
Dhaidala tanuinadis	ant
	3111
Delurhachic schistacous	ant
Polyrhachis schistaceus Solonancia inviata (Animala Diagogurith)	ant rad imported fire ant
Polyrhachis schlandale Solenopsis invicta [Animals Biosecurity]	ant red imported fire ant
Polyrhachis schistaceus Solenopsis invicta [Animals Biosecurity] Tapinoma arnoldi Tapinoma arnoldi	ant red imported fire ant -
Polyrhachis schistaceus Solenopsis invicta [Animals Biosecurity] Tapinoma arnoldi Technomyrmex albipes foreli [Animals Biosecurity]	ant red imported fire ant - -
Polyrhachis schistaceus Solenopsis invicta [Animals Biosecurity] Tapinoma arnoldi Technomyrmex albipes foreli [Animals Biosecurity] Mymaridae	ant red imported fire ant - -
Polyrhachis schistaceus Solenopsis invicta [Animals Biosecurity] Tapinoma arnoldi Technomyrmex albipes foreli [Animals Biosecurity] Mymaridae Chaetomymar gracile [Animals Biosecurity]	ant red imported fire ant - -
Polyrhachis schistaceus Solenopsis invicta [Animals Biosecurity] Tapinoma arnoldi Technomyrmex albipes foreli [Animals Biosecurity] Mymaridae Chaetomymar gracile [Animals Biosecurity] Chaetomymar lepidum [Animals Biosecurity]	ant red imported fire ant - - -
Polyrhachis schistaceus Solenopsis invicta [Animals Biosecurity] Tapinoma arnoldi Technomyrmex albipes foreli [Animals Biosecurity] Mymaridae Chaetomymar gracile [Animals Biosecurity] Chaetomymar lepidum [Animals Biosecurity] Gonatocerus incomptus [Animals Biosecurity]	ant red imported fire ant - - - -
Polyrhachis schistaceus Solenopsis invicta [Animals Biosecurity] Tapinoma arnoldi Technomyrmex albipes foreli [Animals Biosecurity] Mymaridae Chaetomymar gracile [Animals Biosecurity] Chaetomymar lepidum [Animals Biosecurity] Gonatocerus incomptus [Animals Biosecurity] Platygasteridae	ant red imported fire ant - - - -
Polyrhachis schistaceus Solenopsis invicta [Animals Biosecurity] 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]	ant red imported fire ant - - - -
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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 Eumeta moddermanni Hyalarcta huebneri Pyralidae Apomyelois ceratoniae Tortricidae Adoxophyes sp. Amorbia cuneana Archips argyrospilus Archips machlopis Archips occidentalis Archips rosanus Argyrotaenia citrana Cacoecimorpha pronubana Cryptophlebia batrachopa Cryptophlebia leucotreta Homona magnanima Isotenes miserana Platynota stultana Tortrix capensana **Yponomeutidae** Prays citri Prays parilis Neuroptera Chrysopidae Chrysopa oculata [Animals Biosecurity] Coniopterygidae Coniopteryx vicina [Animals Biosecurity] Conwentzia barretti [Animals Biosecurity] Orthoptera Acrididae Zonocerus elegans Gryllidae Ornebius kanetataki Tettigoniidae Caedicia sp. Holochlora japonica Microcentrum retinerve Scudderia furcata Psocoptera Archipsocidae Archipsocus sp. Thysanoptera Aeolothripidae Franklinothrips vespiformis [Animals Biosecurity] Thripidae Chaetanaphothrips orchidii Leptothrips mali Scirtothrips aurantii Scirtothrips citri Scirtothrips dorsalis Scirtothrips mangiferae Scolothrips sexmaculatus [Animals Biosecurity] Taeniothrips kellyanus Taeniothrips sp. Thrips coloratus Thrips flavus Thrips palmi Unknown Insecta

tea bagworm leaf case moth date pyralid leafroller fruit tree leafroller leafroller leafroller rose leafroller orange tortrix carnation leafroller false codling moth oriental tea tortrix orange fruitborer omnivorous leafroller tortricid moth citrus flower moth citrus flower moth elegant grasshopper cricket Japanese broadwinged katydid smaller angular-winged katydid fork-tailed bush katydid bark louse banana rust thrips black hunter thrips citrus thrips citrus thrips chilli thrips mango thrips thrips flower thrips palm thrips

Unknown Insecta

Cosmophyllum pallidulum

Mite Arachnida Acarina Acaridae Thyreophagus entomophagus italicus [Animals Biosecurity] Anystidae Anystis agilis [Animals Biosecurity] Eriophyidae Aculops pelekassi eriophyid mite Tegolophus australis brown citrus mite Phytoseiidae Amblyseius addoensis [Animals Biosecurity] Amblyseius citri [Animals Biosecurity] Amblyseius swirskii [Animals Biosecurity] Euseius hibisci [Animals Biosecurity] Euseius scutalis [Animals Biosecurity] Euseius stipulatus [Animals Biosecurity] Euseius tularensis [Animals Biosecurity] Iphiseius degenerans [Animals Biosecurity] predatory mite Typhlodromus athiasae [Animals Biosecurity] Stigmaeidae Agistemus africanus [Animals Biosecurity] Agistemus tranatalensis [Animals Biosecurity] Eryngiopus siculus [Animals Biosecurity] Tarsonemidae Tarsonemus cryptocephalus [Animals Biosecurity] Tenuipalpidae Brevipalpus chilensis false spider mite Brevipalpus lewisi bunch mite Brevipalpus obovatus privet mite Tenuipalpus emeticae [Animals Biosecurity] Tuckerella ornata Ultratenuipalpus gonianaensis tenuipalpid mite Tetranychidae Calacarus citrifolii clover mite Eotetranychus kankitus tetranychid mite Eotetranychus lewisi big beaked plum mite Eotetranychus yumensis Yumi spider mite Eutetranychus africanus tetranychid mite Eutetranychus banksi Texus citrus mite Eutetranychus orientalis pear leaf blister mite Oligonychus mangiferus mango spider mite Tetranvchus kanzawai kanzawa mite Tuckerellidae hawthorn spider mite Tuckerella knorri 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	snall
UTUCYCIUS HAVESCETIS Hrocyclus kirkii	-
Fundus	
Ascomycota	
Diaporthales	
Valsaceae	
Diaporthe rudis (anamorph Phomopsis rudis)	phomopsis canker
Dothideales	
Elsinoaceae	
Elsinoe australis	sweet orange scab
Capnodiaceae	
Capnodium citri	sooty mould
Didymosphaeriaceae	
Didymosphaeria sp.	
Mycosphaerellaceae	
<i>Guignardia citricarpa</i> (anamorph <i>Phyllosticta citricarpa</i>) [black	citrus black spot
spot strain]	
Mycosphaerella citri (anamorph Stenella citri-grisea)	rind blotch
Mycosphaerella horii	greasy spot
Patellariages	
Patellarlaceae	
Rinylianystelon	
Saccharomycetaes	
Deharverwees hancenii	
Debai yoniyees nansenni Calactomycos citri aurantii (anamornh Cootrichum citri	- sour rot
odiacioni y ces cui r-aurantii (anamorph Geounchum cui-	Souriol
Basidiomycota: Basidiomycetes	
Boletales	
Conjonhoraceae	
Conionhora eremonhila	brown wood rot
Basidiomycota: Teliomycetes	
Septobasidiales	
Septobasidiaceae	
Septobasidium pseudopedicellatum	felt fungus
Mitosporic Fungi	0
Unknown Mitosporic Fungi	
Unknown Mitosporic Fungi	
Sphaceloma fawcettii var. scabiosa	-
Mitosporic Fungi (Coelomycetes)	
Sphaeropsidales	
Sphaerioidaceae	
Macrophoma mantegazziana	-
Phoma errauca var. Mikan	
Phoma Irachelphila Dhamanaisan	mai secco
Priviriupsis sp.	IUL
Stylulia Syp.	- ctom gall
Spinderupsis lumenaciens	stern gan
Unknown Coelomycetes	
Ascharsonia nlacenta [Animals Riosocurity]	
השטופושטוום גומנכוונם נאווווומוג מוטגבנעוונץן	

Gloeosporium foliicolum	fruit rot
Mitosporic Fungi (Hyphomycetes)	
Hyphomycetales	
Dematiaceae	
Alternaria limicola	-
Alternaria pellucida	
Cercospora microsora Deacoramularia angelensis	- corcospora spot
Pildeulalliulalla aliyulelisis Stomphylium rosarium	cercospora spor
Lllocladium obovoideum	 ulocladium rot
Linknown Hynhomycetes	ulociaulum fot
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	
Giomus etunicatum (Animais Biosecurity)	
Mucui ales Synconhalastracoao	
Syncephalastrum racemosum	
Syncephalasirum racemosum	
Bacterium	
Bacterium family unknown	
Liberobacter africanum	citrus areenina bac
Liberobacter asiaticum	citrus greening bac
Liberobacter sp.	citrus greening bac
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 spo
Xylella fastidiosa	Pierce's disease
Xylella lasildiosa pv. cliri	variegated chlorosi
Virus	
VII US	
citrus cachevia 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	-
uwariing lactor viroid	-
navel orange inlectious mottling VIrus	-
salsuma uwan nepuviius	-

cterium cterium cterium

ot sis of citrus

satsuma dwarf nepovirus [Natsudaidai dwarf strain] xyloporosis viroid yellow vein clearing of lemon	- -
Phytoplasma	
<i>Candidatus</i> Phytoplasma aurantifolia rubbery wood	witches' broom phytoplasma -
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	-

NON-REGULATED PESTS (non-actionable)

Insect	
Coleoptera	
Anthribidae	
Araecerus fasciculatus	coffee bean weevil
Cerambycidae	
Oemona hirta	lemon tree borer
Coccinellidae	
Cryntolaemus montrouzieri	mealvhug destrove
Rodolia cardinalis [Animals Riosecurity]	-
Curculionidae	
	Fuller's rose weevil
Listradaras ahliauus	vegetable weevil
Malautornas snininas	dicky rice weevil
Dhlyctinus callosus	bandod fruit woovil
Scarabaoidao	
Costolutra zoalandica	arass arub
Dintora	grass grub
Cryptochaotidao	
Cruntachatum icorua [Animals Diosocurity]	
Cryptochetum iceryae [Ammais Biosecunity]	-
	vine ger fly
Diosophila melanoyaster	vinegarity
Remipiera Dentetemidee	
	aroon voastable bu
Nezara Viridula	green vegetable bu
Homopiera	
Aleyrodidae	Australian atrus wh
	Australian citrus wh
Aphididae	
Aphis craccivora	cowpea aphid
Aphis gossypii	cotton aphid
Aphis nerii	oleander aphid
Aphis spiraecola	spirea aphid
Macrosiphum euphorbiae	potato aphid
Myzus cerasi	black cherry aphid
Myzus persicae	green peach aphid
Toxoptera aurantii	black citrus aphid
Toxoptera citricida	brown citrus aphid
Coccidae	
Ceroplastes ceriferus	Indian white wax so
Ceroplastes destructor	white wax scale
Ceroplastes sinensis	Chinese wax scale
Coccus hesperidum	brown soft scale
Coccus longulus	long brown scale
Saissetia coffeae	hemispherical scale
Saissetia oleae	black scale
Diaspididae	
Aonidiella aurantii	California red scale
Aspidiotus hederae	oleander scale
Aspidiotus nerii	oleander scale
Diaspis santali	scale
Lindingaspis rossi	Ross' black scale
Lopholeucaspis japonica	pear white scale
Parlatoria pergandii	chaff scale
Pinnaspis aspidistrae	fern scale
Quadraspidiotus perniciosus	San Jose scale
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Flatidae Siphanta acuta Margarodidae Icerya purchasi Pseudococcidae Planococcus citri Planococcus mali Pseudococcus calceolariae Pseudococcus longispinus Pseudococcus viburni Ricaniidae Scolypopa australis Hymenoptera Aphelinidae Aphytis chrysomphali [Animals Biosecurity] Encarsia citrina [Animals Biosecurity] Encarsia perniciosi [Animals Biosecurity] Encyrtidae Coccidoctonus dubius [Animals Biosecurity] Formicidae Linepithema humile [Animals Biosecurity] Pheidole megacephala [Animals Biosecurity] Lepidoptera Geometridae Pseudocoremia dejectaria Pseudocoremia suavis Hepialidae Aenetus virescens Noctuidae Helicoverpa armigera Spodoptera litura Oecophoridae Stathmopoda phlyegyra [Animals Biosecurity] Tortricidae Cnephasia jactatana Ctenopseustis obliguana Epalxiphora axenana Epiphyas postvittana Planotortrix excessana Orthoptera Tettigoniidae Caedicia simplex Thysanoptera Phlaeothripidae Nesothrips propinguus breviceps Thripidae Frankliniella occidentalis Heliothrips haemorrhoidalis Pezothrips kellyanus Thrips hawaiiensis Thrips obscuratus Thrips tabaci

green planthopper cottony cushion scale citrus mealybug citrophilus mealybug longtailed mealybug obscure mealybug passionvine hopper Argentine ant big-headed ant pine looper puriri moth tomato fruitworm cluster caterpillar black lyre leafroller brownheaded leafroller light brown apple moth greenheaded leafroller katydid western flower thrips greenhouse thrips Kelly's citrus thrips Hawaiian flower thrips

New Zealand flower thrips

onion thrips

Mite Arachnida

Acarina	
Eriophyidae	
Aceria sheldoni	citrus bud mite
Phyllocoptruta oleivora	citrus rust mite
Phytoseiidae	
Phytoseiulus persimilis [Animals Biosecurity]	predatory mite
Stigmaeidae	
<i>Eryngiopus bitidus</i> (Animais Biosecurity)	-
Delunhagetersenemus letus	broad mita
Tonuinalnidao	DI Udu IIIIte
Brevinalnus californicus	hunch mite
Brevipalpus californicus Brevipalpus nhoenicis	nassionvine mite
Tetranychidae	
Fotetranychus sexmaculatus	sixspotted mite
Panonvchus citri	citrus red mite
Tetranychus cinnabarinus	carmine spider mite
Tetranychus urticae	twospotted spider mite
,	
Mollusc	
Gastropoda	
Stylommatophora	
Helicidae	
Helix aspersa	common garden snail
Limacidae	0
Deroceras reticulatum	grey garden slug
Fungus	
Ascomycota	
Diaporthales	
Valsaceae	
<i>Diaporthe citri</i> (anamorph <i>Phomopsis citri</i>)	melanose
Diatrypales	
Diatrypaceae	
Eutypa lata	eutypa dieback
Dotnideales	
Botryosphaeriaceae	aankar
Boli yosphaeria dolnidea (anamorph Fusicoccum aescuii)	Cariker
Cannadiacaaa	gummosis
Cannodium salicinum	sooty mould
Flsingaceae	Sooty mould
Elsinoe fawcettii (anamorph Sphaceloma fawcetti)	verrucosis
Mycosphaerellaceae	Venucosis
Guignardia citricarpa (anamorph Phyllosticta citricarpa) [non-	latent skin infection
pathogenic strain]	
Mycosphaerella pinodes (anamorph Ascochyta pinodes)	mycosphaerella blight
Mycosphaerella tassiana (anamorph Cladosporium herbarum)	black leaf spot
Pleosporaceae	
Pleospora herbarum (anamorph Stemphylium herbarum)	black mould rot
Hypocreales	
Hypocreaceae	
Gibberella baccata (anamorph Fusarium lateritium)	tusarium rot
Gibbereila tujikuroi (anamorph Fusarium tujikuroi)	Tusarium rot
GIDDereila Intricans (anamorph Fusarium equiseti)	root and stem dry rot
ivectria naematococca (anamorph Fusarium solani)	iusarium iruit rot
Leulidies Scieratiniaceae	
Rotryotinia fuckeliana (anamornh Rotrytis cinoroa)	arev mould
Scleratinia sclerationum	cottony rot

Phyllachorales	
Phyllachoraceae	
Glomerella cingulata (anamorph Colletotrichum	anthracnose
gloeosporioides)	
Saccharomycetales	
Dipodascaceae	
Dipodascus geotrichum (anamorph Geotrichum candidum)	sour rot
Endomycetaceae	
Endomyces geotrichum	endomyces
Xylariales	
Xylariaceae	
Ustulina deusta	coal fungus
Basidiomycota: Basidiomycetes	
Stereales	
Hyphodermataceae	
Erythricium salmonicolor (anamorph Necator decretus)	pink disease
Mitosporic Fungi (Coelomycetes)	
Sphaeropsidales	
Leptostromataceae	
Gloeodes pomigena	sooty blotch
Sphaerioidaceae	-
Ascochyta corticola	ascochyta rot
Lasiodiplodia theobromae	fruit and stem-end rot
Septoria citri	septoria spot
Mitosporic Fungi (Hyphomycetes)	
Hyphomycetales	
Dematiaceae	
Alternaria alternata	black stalk rot
Alternaria citri	alternaria rot
Alternaria hesperidearum	
Moniliaceae	
Aspergillus flavus	aspergillus storage rot
Aspergillus flavus Aspergillus niger	aspergillus storage rot aspergillus rot
Aspergillus flavus Aspergillus niger Penicillium digitatum	aspergillus storage rot aspergillus rot green mould
Aspergillus flavus Aspergillus niger Penicillium digitatum Penicillium italicum	aspergillus storage rot aspergillus rot green mould blue mould
Aspergillus flavus Aspergillus niger Penicillium digitatum Penicillium italicum Penicillium ulaiense	aspergillus storage rot aspergillus rot green mould blue mould penicillium mould
Aspergillus flavus Aspergillus niger Penicillium digitatum Penicillium italicum Penicillium ulaiense Verticillium lecanii [Animals Biosecurity]	aspergillus storage rot aspergillus rot green mould blue mould penicillium mould
Aspergillus flavus Aspergillus niger Penicillium digitatum Penicillium italicum Penicillium ulaiense Verticillium lecanii [Animals Biosecurity] Tuberculariales	aspergillus storage rot aspergillus rot green mould blue mould penicillium mould
Aspergillus flavus Aspergillus niger Penicillium digitatum Penicillium italicum Penicillium ulaiense Verticillium lecanii [Animals Biosecurity] Tuberculariales Tuberculariaceae	aspergillus storage rot aspergillus rot green mould blue mould penicillium mould
Aspergillus flavus Aspergillus niger Penicillium digitatum Penicillium italicum Penicillium ulaiense Verticillium lecanii [Animals Biosecurity] Tuberculariales Tuberculariaceae Fusarium culmorum	aspergillus storage rot aspergillus rot green mould blue mould penicillium mould dry rot
Aspergillus flavus Aspergillus niger Penicillium digitatum Penicillium italicum Penicillium ulaiense Verticillium lecanii [Animals Biosecurity] Tuberculariales Tuberculariaceae <i>Fusarium culmorum</i> <i>Fusarium oxysporum</i>	aspergillus storage rot aspergillus rot green mould blue mould penicillium mould dry rot leaf spot
Aspergillus flavus Aspergillus niger Penicillium digitatum Penicillium italicum Penicillium ulaiense Verticillium lecanii [Animals Biosecurity] Tuberculariales Tuberculariaceae Fusarium culmorum Fusarium oxysporum Unknown Hyphomycetes	aspergillus storage rot aspergillus rot green mould blue mould penicillium mould dry rot leaf spot
Aspergillus flavus Aspergillus niger Penicillium digitatum Penicillium italicum Penicillium ulaiense Verticillium lecanii [Animals Biosecurity] Tuberculariales Tuberculariaceae Fusarium culmorum Fusarium oxysporum Unknown Hyphomycetes Unknown Hyphomycetes	aspergillus storage rot aspergillus rot green mould blue mould penicillium mould dry rot leaf spot
Aspergillus flavus Aspergillus niger Penicillium digitatum Penicillium italicum Penicillium ulaiense Verticillium lecanii [Animals Biosecurity] Tuberculariales Tuberculariaceae Fusarium culmorum Fusarium oxysporum Unknown Hyphomycetes Unknown Hyphomycetes Trichothecium roseum	aspergillus storage rot aspergillus rot green mould blue mould penicillium mould dry rot leaf spot
Aspergillus flavus Aspergillus niger Penicillium digitatum Penicillium italicum Penicillium ulaiense Verticillium lecanii [Animals Biosecurity] Tuberculariales Tuberculariales Tuberculariaceae Fusarium culmorum Fusarium oxysporum Unknown Hyphomycetes Unknown Hyphomycetes Trichothecium roseum Oomycota	aspergillus storage rot aspergillus rot green mould blue mould penicillium mould dry rot leaf spot pink rot
Aspergillus flavus Aspergillus niger Penicillium digitatum Penicillium italicum Penicillium ulaiense Verticillium lecanii [Animals Biosecurity] Tuberculariales Tuberculariaceae Fusarium culmorum Fusarium oxysporum Unknown Hyphomycetes Unknown Hyphomycetes Trichothecium roseum Oomycota Pythiales	aspergillus storage rot aspergillus rot green mould blue mould penicillium mould dry rot leaf spot pink rot
Aspergillus flavus Aspergillus niger Penicillium digitatum Penicillium italicum Penicillium ulaiense Verticillium lecanii [Animals Biosecurity] Tuberculariales Tuberculariales Tuberculariaceae Fusarium culmorum Fusarium oxysporum Unknown Hyphomycetes Unknown Hyphomycetes Trichothecium roseum Oomycota Pythiales Pythiaceae	aspergillus storage rot aspergillus rot green mould blue mould penicillium mould dry rot leaf spot pink rot
Aspergillus flavus Aspergillus niger Penicillium digitatum Penicillium italicum Penicillium ulaiense Verticillium lecanii [Animals Biosecurity] Tuberculariales Tuberculariales Tuberculariaceae Fusarium culmorum Fusarium oxysporum Unknown Hyphomycetes Unknown Hyphomycetes Trichothecium roseum Oomycota Pythiales Pythiaceae Phytophthora citricola	aspergillus storage rot aspergillus rot green mould blue mould penicillium mould dry rot leaf spot pink rot brown rot of fruit
Aspergillus flavus Aspergillus niger Penicillium digitatum Penicillium italicum Penicillium ulaiense Verticillium lecanii [Animals Biosecurity] Tuberculariales Tuberculariaceae Fusarium culmorum Fusarium oxysporum Unknown Hyphomycetes Unknown Hyphomycetes Trichothecium roseum Oomycota Pythiales Pythiaceae Phytophthora citricola Phytophthora citricola Phytophthora citricola	aspergillus storage rot aspergillus rot green mould blue mould penicillium mould dry rot leaf spot pink rot brown rot of fruit citrus brown rot
Aspergillus flavus Aspergillus niger Penicillium digitatum Penicillium italicum Penicillium ulaiense Verticillium lecanii [Animals Biosecurity] Tuberculariales Tuberculariaceae Fusarium culmorum Fusarium oxysporum Unknown Hyphomycetes Unknown Hyphomycetes Trichothecium roseum Oomycota Pythiales Pythiaceae Phytophthora citricola Phytophthora citricola Phytophthora citrophthora Phytophthora hibernalis	aspergillus storage rot aspergillus rot green mould blue mould penicillium mould dry rot leaf spot pink rot brown rot of fruit citrus brown rot citrus brown rot
Aspergillus flavus Aspergillus niger Penicillium digitatum Penicillium italicum Penicillium ulaiense Verticillium lecanii [Animals Biosecurity] Tuberculariales Tuberculariaceae Fusarium culmorum Fusarium oxysporum Unknown Hyphomycetes Unknown Hyphomycetes Trichothecium roseum Oomycota Pythiales Pythiales Pythiales Phytophthora citricola Phytophthora citricola Phytophthora hibernalis Phytophthora nicotianae var. parasitica	aspergillus storage rot aspergillus rot green mould blue mould penicillium mould dry rot leaf spot pink rot brown rot of fruit citrus brown rot citrus brown rot collar and root rot
Aspergillus flavus Aspergillus niger Penicillium digitatum Penicillium italicum Penicillium ulaiense Verticillium lecanii [Animals Biosecurity] Tuberculariales Tuberculariaceae Fusarium culmorum Fusarium oxysporum Unknown Hyphomycetes Unknown Hyphomycetes Unknown Hyphomycetes Trichothecium roseum Oomycota Pythiales Pythiales Pythiales Phytophthora citricola Phytophthora citricola Phytophthora nicotianae var. parasitica Zygomycota: Zygomycetes	aspergillus storage rot aspergillus rot green mould blue mould penicillium mould dry rot leaf spot pink rot brown rot of fruit citrus brown rot citrus brown rot collar and root rot
Aspergillus flavus Aspergillus niger Penicillium digitatum Penicillium italicum Penicillium ulaiense Verticillium lecanii [Animals Biosecurity] Tuberculariales Tuberculariaceae Fusarium culmorum Fusarium oxysporum Unknown Hyphomycetes Unknown Hyphomycetes Trichothecium roseum Oomycota Pythiales Pythiales Pythiaceae Phytophthora citricola Phytophthora citricola Phytophthora nicotianae var. parasitica Zygomycota: Zygomycetes Mucorales	aspergillus storage rot aspergillus rot green mould blue mould penicillium mould dry rot leaf spot pink rot brown rot of fruit citrus brown rot citrus brown rot collar and root rot
Aspergillus flavus Aspergillus niger Penicillium digitatum Penicillium italicum Penicillium ulaiense Verticillium lecanii [Animals Biosecurity] Tuberculariales Tuberculariaceae Fusarium culmorum Fusarium oxysporum Unknown Hyphomycetes Unknown Hyphomycetes Trichothecium roseum Oomycota Pythiales Pythiales Pythiales Pythiaceae Phytophthora citricola Phytophthora nicotianae var. parasitica Zygomycota: Zygomycetes Mucorales Mucoraceae	aspergillus storage rot aspergillus rot green mould blue mould penicillium mould dry rot leaf spot pink rot brown rot of fruit citrus brown rot citrus brown rot collar and root rot
Aspergillus flavus Aspergillus niger Penicillium digitatum Penicillium italicum Penicillium ulaiense Verticillium lecanii [Animals Biosecurity] Tuberculariales Tuberculariaceae Fusarium culmorum Fusarium oxysporum Unknown Hyphomycetes Unknown Hyphomycetes Trichothecium roseum Oomycota Pythiales Pythiales Pythiaceae Phytophthora citricola Phytophthora citricola Phytophthora nicotianae var. parasitica Zygomycota: Zygomycetes Mucoraceae Rhizopus stolonifer	aspergillus storage rot aspergillus rot green mould blue mould penicillium mould dry rot leaf spot pink rot brown rot of fruit citrus brown rot citrus brown rot collar and root rot
Aspergillus flavus Aspergillus niger Penicillium digitatum Penicillium italicum Penicillium ulaiense Verticillium lecanii [Animals Biosecurity] Tuberculariales Tuberculariaceae <i>Fusarium culmorum</i> <i>Fusarium oxysporum</i> Unknown Hyphomycetes Unknown Hyphomycetes <i>Trichothecium roseum</i> Oomycota Pythiales Pythiales Pythiaceae <i>Phytophthora citricola</i> <i>Phytophthora citricola</i> <i>Phytophthora nicotianae</i> var. <i>parasitica</i> Zygomycota: Zygomycetes Mucoraceae <i>Rhizopus stolonifer</i>	aspergillus storage rot aspergillus rot green mould blue mould penicillium mould dry rot leaf spot pink rot brown rot of fruit citrus brown rot citrus brown rot citrus brown rot collar and root rot
Aspergillus flavus Aspergillus niger Penicillium digitatum Penicillium italicum Penicillium ulaiense Verticillium lecanii [Animals Biosecurity] Tuberculariales Tuberculariaceae <i>Fusarium culmorum</i> <i>Fusarium oxysporum</i> Unknown Hyphomycetes Unknown Hyphomycetes Unknown Hyphomycetes <i>Trichothecium roseum</i> Oomycota Pythiales Pythiales Pythiaceae <i>Phytophthora citricola</i> <i>Phytophthora citricola</i> <i>Phytophthora citricola</i> <i>Phytophthora nicotianae</i> var. <i>parasitica</i> Zygomycota: Zygomycetes Mucoraceae <i>Rhizopus stolonifer</i> Bacterium	aspergillus storage rot aspergillus rot green mould blue mould penicillium mould dry rot leaf spot pink rot brown rot of fruit citrus brown rot citrus brown rot citrus brown rot collar and root rot
Aspergillus flavus Aspergillus niger Penicillium digitatum Penicillium italicum Penicillium ulaiense Verticillium lecanii [Animals Biosecurity] Tuberculariales Tuberculariaceae <i>Fusarium culmorum</i> <i>Fusarium oxysporum</i> Unknown Hyphomycetes Unknown Hyphomycetes Unknown Hyphomycetes <i>Trichothecium roseum</i> Oomycota Pythiales Pythiales Pythiaceae <i>Phytophthora citricola</i> <i>Phytophthora citricola</i> <i>Phytophthora citrophthora</i> <i>Phytophthora nicotianae</i> var. <i>parasitica</i> Zygomycota: Zygomycetes Mucorales Mucoraceae <i>Rhizopus stolonifer</i> Bacterium Pseudomonadaceae	aspergillus storage rot aspergillus rot green mould blue mould penicillium mould dry rot leaf spot pink rot brown rot of fruit citrus brown rot citrus brown rot collar and root rot
Aspergillus flavus Aspergillus niger Penicillium digitatum Penicillium italicum Penicillium ulaiense Verticillium lecanii [Animals Biosecurity] Tuberculariales Tuberculariaceae Fusarium culmorum Fusarium oxysporum Unknown Hyphomycetes Unknown Hyphomycetes Trichothecium roseum Oomycota Pythiales Pythiales Pythiaceae Phytophthora citricola Phytophthora citricola Phytophthora nicotianae var. parasitica Zygomycota: Zygomycetes Mucorales Mucoraceae Rhizopus stolonifer Bacterium Pseudomonadaceae Pseudomonadaceae Pseudomonadaceae	aspergillus storage rot aspergillus rot green mould blue mould penicillium mould dry rot leaf spot pink rot brown rot of fruit citrus brown rot citrus brown rot collar and root rot rhizopus soft rot tomato pith necrosis
Aspergillus flavus Aspergillus niger Penicillium digitatum Penicillium italicum Penicillium ulaiense Verticillium lecanii [Animals Biosecurity] Tuberculariales Tuberculariaceae Fusarium culmorum Fusarium oxysporum Unknown Hyphomycetes Unknown Hyphomycetes Trichothecium roseum Oomycota Pythiales Pythiaceae Phytophthora citricola Phytophthora citricola Phytophthora nicotianae var. parasitica Zygomycota: Zygomycetes Mucorales Mucoraceae Rhizopus stolonifer Bacterium Pseudomonadaceae Pseudomonadaceae Pseudomonas corrugata Pseudomonas fluorescens	aspergillus storage rot aspergillus rot green mould blue mould penicillium mould dry rot leaf spot pink rot brown rot of fruit citrus brown rot citrus brown rot citrus brown rot collar and root rot rhizopus soft rot tomato pith necrosis pink eve

Pseudomonas syringae Pseudomonas syringae pv. syringae	bacterial blast bacterial soft rot
Virus	
citrus enation - woody gall luteovirus	-
citrus exocortis viroid	-
citrus psorosis A	-
citrus psorosis B	-
citrus tristeza closterovirus [seedling yellows, decline, and	-
stem pitting strains (except Hassuku dwarf, Capao Bonito, and	
Queensland and South African orange stem pitting strains)]	
hop stunt viroid	-

Inspection, Testing and Treatment Requirements for *Poncirus**

ORGANISM TYPES	MAF 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
E	conditions).
Fungus Restarium	Country freedom OR growing season inspection for symptom expression.
Burkholdaria canacia	Growing season inspection for symptom expression
Liberobacter africanum	Country freedom OB graft in couleted quart granges, grange nineernle, 18 to 2500
Liberobacter asiaticum	Country freedom OR graft-inoculated sweet oranges, orange pineappie, 18 to 25°C.
Spiroplasma citri	Country freedom OK graft-inoculated sweet oranges, orange pineappie, 18 to 25°C.
Spiropiasma curi	Country freedom/shoot tip grafting. Graft inoculated sweet orange, 27 to 32°C. Bioassay =
	culture petiole new flush tissue. Collect tissue after several days at hot temperature (> 30°C) and
	incubate cultures at 32°C.
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	Country freedom/shoot tip grafting bioassay/detached leaf bioassay/ PCR OR suitable citrus
pv. citrumelo	indicator.
Xylella fastidiosa	Country freedom/shoot tip grafting bioassay/ PCR/ELISA OR suitable citrus indicator.
Xylella fastidiosa pv. citri	Country freedom/shoot tip grafting bioassay PCR/ELISA OR suitable citrus indicator.
Virus	Country freedom OB graft inequilated rough lamon at appl temperatures temperatures 18 to
citrus chiorotic dwarf	25°C.
citrus infectious variegation	Country freedom OR graft inoculated citron, sour orange, lemon, cidro etrog. Grow indicators at
ilarvirus	cool temperatures 18 to 25°C.
citrus infectious variegation	Country freedom OR graft inoculated citron, sour orange, lemon, cidro etrog. Grow indicators at
ilarvirus [crinkly leaf strain]	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
citrus ringspot virus	25°C. Country freedom OR graft inoculated dweet tangor, sweet orange, mandarin (Parson's Special)
citius migspot virus	Grow indicators at cool temperatures 18 to 250C
citrus tatter leaf capillovirus	Country freedom OR graft inoculated Rusk citrange, rough lemon, <i>Citrus arcelsa</i> , citrange
entus tatter lear capillovirus	(Trover) Grow indicators at cool temperatures 18 to 250C
citrus tristeza closterovirus	Country freedom OR FLISA graft inoculated Mexican lime sour orange and <i>Citrus excelsa</i>
[strains not in New Zealand]	Grow indicators at cool temporatures 18 to 250C
citrus vellow mosaic	Country freedom OR graft inoculated sweet orange sour orange and citron
badnavirus	Country needoni OK grant moculated sweet orange, sour orange and enroll.
citrus yellow mottle virus	Country freedom OR other suitable test.
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 temperatures 18 to
mottling virus	25°C.
satsuma dwarf nepovirus	Country freedom OR graft inoculated satsums. Grow indicators at cool temperatures 18 to
	25°C.

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

* Country freedom is accepted as equivalence to a treatment.

Notes:

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

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

GENERAL CONDITIONS:

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

Quarantine Pests: Marssonina spp.; Uredinales; Xylella fastidiosa; virus diseases

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

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

B. For Tissue Cultures:

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

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

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

Cuttings (dormant); Plants in tissue culture

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

2. Pests of Prunus

Refer to the pest list.

3. Entry conditions for:

3.1 *Prunus* cuttings and tissue culture from offshore MAF-accredited facilities in any country

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

(i) *Documentation*

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

(ii) *Phytosanitary requirements*

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

The Prunus cuttings / plants in tissue culture [choose ONE option] have been:

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

AND

- treated for regulated insects and mites as described in section 2.2.1.6 of the basic conditions within 7 days prior to shipment [cuttings only].

AND

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

AND

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

(iii) Additional declarations to the phytosanitary certificate

If satisfied that the pre-shipment activities have been undertaken, the exporting country NPPO must confirm this by recording the treatments applied in the "Disinfestation and/or Disinfection Treatment" section [cuttings only] and by providing the following additional declarations to the phytosanitary certificate:

"The Prunus cuttings have been:

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

AND

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

(iv) Post-entry quarantine

PEQ: All *Prunus* nursery stock must be imported under permit into post-entry quarantine in a level 2 quarantine facility accredited to MAF standard PBC-NZ-TRA-PQCON *Specification for the registration of a plant quarantine or containment facility, and operator.*

Quarantine Period and Inspection, Testing and Treatment Requirements: Upon arrival cuttings will be dipped in 1% sodium hypochlorite for 2 minutes [cuttings only]. The nursery stock will be grown for a minimum period of 9 months in post-entry quarantine and will be inspected, treated and/or audit-tested for regulated pests, at the expense of the importer. Nine months is an indicative minimum quarantine period and this period may be extended if material is slow growing, pests are detected, or treatments/testing are required.

3.2 Prunus cuttings and tissue culture from from non-accredited facilities in any country

(i) *Documentation*

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

(ii) *Phytosanitary requirements*

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

The *Prunus* cuttings / plants in tissue culture [choose ONE option] have been:

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

AND

- treated for regulated insects and mites as described in section 2.2.1.6 of the basic conditions within 7 days prior to shipment [cuttings only].

AND

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

(iii) Additional declarations to the phytosanitary certificate

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

(iv) *Post-entry quarantine*

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

Quarantine Period and Inspection, Testing and Treatment Requirements: Upon arrival cuttings will be dipped in 1% sodium hypochlorite for 2 minutes [cuttings only]. The nursery stock will be grown for a minimum period of 24 months in post-entry quarantine and will be inspected, treated and/or tested for regulated pests as specified in the "Inspection, Testing and Treatment Requirements for *Prunus*", at the expense of the importer. Twenty four months is an indicative minimum quarantine period and this period may be extended if material is slow growing, pests are detected, or treatments/testing are required.

Pest List for Prunus

REGULATED PESTS (actionable)

Insect Insecta Coleoptera Bostrichidae Apate monachus **Buprestidae** Chrysobothris mali Sphenoptera dadkhani Sphenoptera lafertei Cerambycidae Aeolesthes holosericea Aeolesthes sarta Chrysomelidae Chaetocnema confinis Diabrotica speciosa Monolepta australis Prasoidea sericea Curculionidae Eremnus atratus Eremnus cerealis Eremnus setulosus Naupactus xanthographus Orthorhinus cylindrirostris Otiorhynchus armadillo Scolytidae 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 Oxycarenus arctatus Oxycarenus exitiotus

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 coon bug fruit tree stinkbug

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 Icerya seychellarum Membracidae Ceresa alta Ceresa bubalus Stictocephala inermis Pseudococcidae Maconellicoccus hirsutus Pseudococcus maritimus

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 buffalo tree hopper

pink hibiscus mealybug grape mealybug
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 Xestia c-nigrum Notodontidae Datana ministra Oecophoridae Cryptophasa melanostigma Maroga melanostigma Papilionidae Papilio rutulus Pyralidae

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 spotted cutworm yellow-necked caterpillar fruit tree borer fruit tree borer

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 Thrips angusticeps Thrips flavus Mite

Arachnida Acarina Acaridae Caloglyphus haripuriensis Eriophyidae Acalitus phloecoptes Aceria chinensis Aculus fockeui [vector]

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 cabbage thrips flower thrips

acarid mite plum bud gall mite eriophyid mite

Cenopalpus lanceolatisetae Cenopalpus pulcher flat scarlet mite 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 Calosphaeriales Calosphaeriaceae Calosphaeria pulchella Diaporthales Valsaceae Apiognomonia erythrostoma Diaporthe decorticans Diaporthe pennsylvanica Diaporthe pruni Leucostoma cincta (anamorph Cytospora cincta) **Dothideales** Botryosphaeriaceae Auerswaldiella puccinioides

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 yellow 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 canker

leaf spot

Biosecurity New Zealand Standard 155.02.06: Importation of Nursery Stock

Mycosphaerella cerasella (anamorph Cercospora

Mycosphaerellaceae

circumscissa)	
Mycosphaerella nigerristigma	-
<i>Mycosphaerella pruni-persicae</i> (anamorph <i>Miuraea persica</i>)	frosty mildew
Schizothyriaceae	
Schizothyrium pomi (anamorph Zygophiala jamaicensis)	fly speck
Zopfiaceae	
Caryospora putaminum	
unknown Dothideales	
Apiosporina morbosa	black knot
Erysiphales	
Érysiphaceae	
Sphaerotheca armeniaca	
Leotiales	
Dermateaceae	
Blumeriella iaapii (anamorph Phloeosporella padi)	shot-hole
Dermea cerasi (anamorph Foveostroma drupacearum)	
Sclerotiniaceae	
Grovesinia pyramidalis (anamorph Cristulariella moricola)	target spot
l ambertella iasmini	rot
Lambertella pruni	fruit rot
Monilinia fructigena (anamornh Monilia fructigena)	Furopean brown rot
Monilinia kusanoi	leaf hlight
Monilinia kusanoi Monilinia seaveri	twia hlight
Dhullachorales	
Dhyllachoracoao	
Polystiama ruhrum	
Polystigma ussurionsis	
Tanhrinalos	
Taphrinacts	
Taphrina armoniacao	witchos' broom
Taphrina annoniacae Taphrina communic	bladdor fruit
Taphrina confusa	DIAUUEI ITUIL
Taphrina Connusa Taphrina floatana	
Taphina neuri aubaardataa	-
Taphinina pruni-subcorualae Vularialaa	
Xyldrides	
Xylaria langiona	
Xylaria ionylana Vylaria moli	 black root rot
Xylalla Illall	DIACK TOOL TOL
Unknown Ascomycola	
	naaab bliatar aankar
Physaiospora perseae	peach blister canker
Agaricalos	
Aydillates	
Strophanaceae	wood doooy
Phonola squarosa	wood decay
Armiliaria bulbosa	armiliaria root rot
	-
Armiliaria iuteobubaina	armiliaria root rot
Armiliaria meilea (anamorpn <i>Rnizomorpna subcorticalis</i>)	armiliaria root rot
Armillaria ostoyae	armillaria root rot
Armiliaria tabescens	armiliaria root rot
Ganodermatales	
Ganodermataceae	
Ganoderma brownii	wood decay
Ganoderma lobatum	white soft decay
Ganoderma lucidum (anamorph Polyporus lucidus)	wood rot
Ganoderma zonatum	butt and stem rot
Hericiales	
Gloeocystidiellaceae	

Gloeocystidiellum porosum	
Laxitextum bicolor	white rot
Hymenochaetales	
Hymenochaetaceae	
Phellinus igniarius	-
Phellinus pomaceus	white heart rot
Phellinus prunicola	-
Poriales	
Coriolaceae	
Coriolonsis gallica	white rot
Fomes fomentarius	wood decay
Fomitansis caiandari	wood decay
Fomitopsis cajanuch Fomitopsis molico	wood docay
Formitopsis menae	woou uecay
Fornitopsis princola	brown poolest rot
Formopsis rosea	brown pocket rot
Fomitopsis spraguei	butt rot
Gloeophyllum sepiarium	brown rot
Gloeophyllum trabeum	brown rot
Heterobasidion annosum (anamorph Spiniger meineckellum)	wood rot
Laetiporus sulphureus (anamorph Sporotrichum versisporum)	brown cubical rot
Oxyporus latemarginatus	wood rot
Trametes velutina	dieback
Trichaptum biforme	white rot
Tvromvces chioneus	white rot
Tyromyces tephroleucus	-
Polyporaceae	
Polynorus sauamosus	wood rot
Storoalos	woou for
Corticiacoao	
Dhanorochaoto arizonica	white ret
Phanerochasta crossa	white rot
Phanerochaete crassa	white rot
Cypnellaceae	
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	weh hlight
Basidiomycota: Teliomycetes	web blight
Urodinalos	
Uronyvidaceae	
Tranzocholia prupi cninecco	loof ruct
ITATIZSCITETIA PLUTIT-SPITIOSAE	learrust
	Lessere Le Pours au de Processere L
Leucotelium pruni-persicae	leucotelium white rust
Zygomycota: Zygomycetes	
Mucorales	
Gilbertellaceae	
Gilbertella persicaria	fruit rot
Mucoraceae	
Rhizopus circinans	
mitosporic fungi	
unknown mitosporic funai	
unknown mitosporic funai	
Catenophora pruni	

Fumago vagans mitosporic fungi (Coelomycetes) **Sphaeropsidales** Sphaerioidaceae Coniothyrium amygdali Coniothyrium prunicolum Cytospora persicae Diplodia pruni ---Diplodia vulgaris ---Diplodina persicae Nattrassia mangiferae Phoma persicae Phomopsis cinerascens Phomopsis perseae Phyllosticta congesta Phyllosticta laurocerasi Phyllosticta persicae Phyllosticta serotina Phyllosticta virginiana ---Septoria pruni - unknown Coelomycetes unknown Coelomycetes Asteromella mali Cylindrosporium nuttallii Gloeosporium laeticolor Melanconium cerasinum Pestalotia laurocerasi Rhodosticta quercina mitosporic fungi (Hyphomycetes) Hyphomycetales Dematiaceae Alternaria mali Cercospora effusa Cercospora rubrotincta Clasterosporium degenerans Mycocentrospora cladosporioides Phialophora parasitica Moniliaceae Monilia angustior rot Monilia implicata rot unknown Hyphomycetes unknown Hyphomycetes Aureobasidium prunicola Candida inconspicua unknown fungi unknown fungi unknown fungi Morrisographium persicae --Bacterium Bacillaceae Bacillus mesentericus vulgatus Pseudomonadaceae Pseudomonas amygdali Pseudomonas syringae pv. cerasicola Pseudomonas syringae pv. morsprunorum Spiroplasmataceae Spiroplasma citri Xanthomonadaceae Xylella fastidiosa

coniothyrium disease stem-end rot leaf spot fig canker fruit rot phyllosticta rot leaf spot target leaf spot anthracnose leaf spot peach canker alternaria blotch leaf spot fruit spot stem dieback fruit rot sour pit bacterial gall bacterial canker citrus stubborn

Virus

American plum line pattern virus Apple stem grooving virus [Prunus-infecting strain] Apricot deformation mosaic virus Apricot latent virus Carnation Italian ringspot virus Cherry Hungarian rasp leaf virus *Cherry leaf roll virus* [strains not in New Zealand] Cherry line pattern and leaf curl virus Liittle cherry virus 1 Liittle cherry virus 2 Liittle cherry virus 3 Cherry mottle leaf virus Cherry rasp leaf virus [strains not in New Zealand] Cherry rosette disease associated virus Cherry rough fruit virus Cherry rusty mottle virus Cherry twisted leaf virus Cherry virus A Epirus cherry virus Myrobalan latent ringspot virus Peach enation virus Peach mosaic virus Peach rosette mosaic virus Peach violet mosaic virus Peach yellow leaf virus Petunia asteroid mosaic virus Plum bark necrosis stem pitting-associated virus Plum pox virus Prunus virus S Raspberry ringspot virus Sowbane mosaic virus Stocky prune virus Tomato black ring virus Tomato bushy stunt virus Tomato ringspot virus [strains not in New Zealand] Viroid Hop stunt viroid Peach latent mosaic viroid

Phytoplasma

Apricot chlorotic leafroll phytoplasma Apricot decline phytoplasma Apricot witches broom phytoplasma Cherry albino phytoplasma Cherry blossom anomaly Cherry lethal yellows Cherry Moliere disease phytoplasma Cherry western X anomaly European stone fruit yellows phytoplasma Peach decline phytoplasma Peach red suture phytoplasma Peach rosette phytoplasma Peach vein clearing phytoplasma Peach X-disease phytoplasma Peach yellow leafroll phytoplasma Peach yellows phytoplasma

Plum chlorotic leaf roll phytoplasma

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Disease of unknown aetiology

Amasya cherry disease agent Apricot fruit blotch Apricot necrotic leaf roll Apricot pucker leaf agent Apricot vein necrosis agent Apricot vellow 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

NON-REGULATED PESTS (non-actionable)

Insect Insecta Coleoptera Cerambycidae Oemona hirta Chrysomelidae Eucolaspis brunnea Curculionidae Asynonychus cervinus Irenimus parilis Phlyctinus callosus Nitidulidae Carpophilus davidsoni Carpophilus hemipterus Carpophilus mutilatus Scarabaeidae Costelytra zealandica Dermaptera Forficulidae Forficula auricularia Hemiptera Pentatomidae Nezara viridula Homoptera Aphididae Aphis gossypii Aphis pomi Aphis spiraecola Brachycaudus helichrysi Brachycaudus persicae Eriosoma lanigerum Macrosiphum euphorbiae Myzus cerasi Myzus persicae Rhopalosiphum nymphaeae Rhopalosiphum padi Cercopidae Philaenus spumarius Coccidae Ceroplastes destructor Coccus hesperidum Parthenolecanium corni Saissetia coffeae Saissetia oleae Diaspididae Aonidiella aurantii Aspidiotus nerii Diaspidiotus perniciosus Lepidosaphes novozealandica Lepidosaphes ulmi Lindingaspis rossi Lopholeucaspis japonica Parlatoria pergandii Eriococcidae Eriococcus coriaceus Margarodidae

lemon tree borer

bronze beetle

Fuller's rose weevil weevil banded fruit weevil

dried fruit beetle dried fruit beetle dried fruit beetle

grass grub

European earwig

green vegetable bug

cotton aphid apple aphid spirea aphid leafcurl plum aphid black peach aphid woolly apple aphid potato aphid black cherry aphid green peach aphid waterlily aphid bird cherry-oat aphid

meadow spittlebug

white wax scale brown soft scale European fruit scale hemispherical scale black scale

California red scale oleander scale San Jose scale scale oystershell scale Ross' black scale pear white scale chaff scale

gum tree scale

Icerya purchasi Pseudococcidae Pseudococcus calceolariae Pseudococcus longispinus Pseudococcus viburni Ricaniidae Scolypopa australis Hymenoptera Tenthredinidae Caliroa cerasi Lepidoptera Gracillariidae Phyllonorycter messaniella Hepialidae Aenetus virescens Noctuidae Agrotis ipsilon Helicoverpa armigera Helicoverpa armigera conferta Saturniidae Antheraea eucalypti Tortricidae Ctenopseustis obliquana Cydia molesta Cydia pomonella Epiphyas postvittana Harmologa oblongana Planotortrix excessana Tortrix flavescens Orthoptera Tettigoniidae Caedicia simplex Thysanoptera Thripidae Frankliniella intonsa Frankliniella occidentalis Heliothrips haemorrhoidalis Thrips obscuratus Mite Arachnida Acarina Acaridae Tyrophagus putrescentiae Diptilomiopidae Diptacus gigantorhynchus Eriophyidae Aculus cornutus Aculus fockeui Eriophyes pyri Phyllocoptes abaenus Tarsonemidae Tarsonemus waitei Tenuipalpidae Brevipalpus californicus Brevipalpus obovatus Brevipalpus phoenicis Tetranychidae Bryobia rubrioculus Bryobia rubrioculus redikorzevi cottony cushion scale citrophilus mealybug longtailed mealybug obscure mealybug passionvine hopper pear sawfly leafminer puriri moth greasy cutworm tomato fruitworm tomato fruitworm gum emperor moth brownheaded leafroller oriental fruit moth codling moth light brown apple moth leafroller greenheaded leafroller katydid eastern flower thrips western flower thrips areenhouse thrips New Zealand flower thrips mould mite big-beaked plum mite peach bud mite bunch mite bryobia mite

peach silver mite eriophyid mite pear leaf blister mite apricot-russeting mite

privet mite passionvine mite

brown fruit mite

Eotetranychus sexmaculatus Panonychus citri Panonychus ulmi Tetranychus cinnabarinus Tetranychus lambi Tetranychus turkestani Tetranychus urticae	sixspotted mite citrus red mite European red mite carmine spider mite strawberry spider mite strawberry spider mite twospotted spider mite
Nematode	
Adenophorea	
Dorylaimida	
Irichodoridae	
Paralrichodorus porosus	-
Tylonchida	
Pratylenchidae	
Pratylenchus penetrans	root lesion nematode
Fungus	
Ascomycota	
Diaporthales	
Valsaceae	
Diaporthe eres (anamorph Phomopsis oblonga)	canker
Diaporthe perniciosa (anamorph Phomopsis mali)	canker
Leucostoma persoonii (anamorph Cytospora leucostoma)	valsa dieback
Valsa ambiens (anamorph Cytospora leucosperma)	twig dieback
Valsa ceratopnora (anamorph Cytospora sacculus)	valsa canker
Diatrypacoao	
Diatryne stiama	leaf snot
Eutvna lata	eutypa dieback
Dothideales	cutypa alobacit
Botryosphaeriaceae	
Botryosphaeria dothidea (anamorph Fusicoccum aesculi)	canker
Botryosphaeria obtusa (anamorph Sphaeropsis malorum)	blight
Botryosphaeria rhodina (anamorph Lasiodiplodia theobromae)	gummosis
Botryosphaeria stevensii (anamorph Diplodia mutila)	botryosphaeria canker
Leptosphaeriaceae	
Leptosphaeria coniothyrium (anamorph Coniothyrium fuckelii)	common canker
Mycosphaerellaceae	black loaf coat
	DIACK IEAI SPUL
Venturia carpophila (anamorph Cladosporium carpophilum)	scab
Venturia cerasi	scab
Ervsiphales	
Erysiphaceae	
Phyllactinia guttata	powdery mildew
Podosphaera clandestina	powdery mildew
Podosphaera leucotricha	powdery mildew
Podosphaera tridactyla (anamorph Oidium passerinii)	powdery mildew
Sphaerotheca pannosa (anamorph Oidium leucoconium)	powdery mildew
Hypocreales	
Riopoctria ochrolouca (anamorph Cliocladium rosoum)	fusarium rot
Calonectria kyotensis (anamornh Cylindrocladium sconarium)	root and stem rot
Gibberella avenacea (anamorph Eusarium avenaceum)	fusarium stem canker
Gibberella baccata (anamorph Fusarium lateritium)	fusarium rot
Gibberella pulicaris (anamorph Fusarium samhucinum)	Fusarium rot
Gibberella zeae (anamorph Fusarium araminearum)	headblight of maize
Hypocrea ceramica (anamorph Trichoderma koningii)	trichoderma rot

Nectria cinnabarina (anamorph Tubercularia vulgaris) Nectria galligena (anamorph Cylindrocarpon mali) Nectria haematococca (anamorph Fusarium solani) Nectria radicicola (anamorph Cylindrocarpon destructans)	coral spot European canker fusarium fruit rot rot
Leotiales	101
Dermateaceae	
Diplocarpon mespili (anamorph Entomosporium mespili)	black spot
Botryotina fuckeliana (anamorph Botrytis cinerea)	grey mould
<i>Monilinia fructicola Monilinia laxa</i> (anamorph <i>Monilia laxa</i>)	American brown rot European brown rot
Sclerotinia sclerotiorum	cottony rot
Microascales	
unknown Microascales	
Ceratocystis fimbriata	canker
Phyllachorales	
Phyllachoraceae	
Giomerella cingulata (anamorph Colletotrichum	anthrachose
gloeosporioldes)	
Dipodascacoao	
Dipodascus geotrichum (anamorph Geotrichum candidum)	sour rot
Tanhrinales	3001101
Taphrinaceae	
Taphrina deformans	leaf curl
Taphrina mume	
Taphrina pruni	leaf blister
Taphrina wiesneri	leaf blister
Xylariales	
Xylariaceae	
Rosellinia necatrix (anamorph Dematophora necatrix)	white root rot
Basidiomycota: Basidiomycetes	
Agaricales	
Agaricaceae	
Collybia druceae	mushroom rot
Aphyliophorales	
Unknown Aphyliophorales	
Byssonnerunus conum Cantharollalos	
Hydnaceae	
Steccherinum ochraceum	sapwood rot
Ceratobasidiales	suprised for
Ceratobasidiaceae	
Thanatephorus cucumeris (anamorph Rhizoctonia solani)	rhizoctonia rot
Ganodermatales	
Ganodermataceae	
Ganoderma applanatum	white rot
Ganoderma australe	white heart rot
Hymenochaetales	
Hymenochaetaceae	
Phellinus gilvus	wood rot
Phellinus robustus	black measles
Poriales	
	and t
Antrodia albida	wood decay
Pycnoporus coccineus	branch canker
i rametes nirsuta	wood decay
I rametes versicolor Schizophyllolog	white rot
Schizophyllacese	
Johnzophynaceae	

Schizophyllum commune	agaric stem rot
Stereales	agano eternitet
Atheliaceae	
Athelia rolfsii (anamorph Sclerotium rolfsii)	Rolf's disease
Corticiaceae	
	root rot
Meruliaceae	1001101
Chondrostereum nurnureum	silver leaf
Storoacoao	
Amulastoroum sacratum	sirov fungus
Annyiosici cum sacialum Storoum hircutum	black mosslos
Desidiomycoto, Toliomycotoc	DIACK ITTEASTES
Lizadinalaa	
Urennwideesee	
	rust
ITANZSCHEIIA DISCOIOF	rusi
Basidiomycota: Ustomycetes	
Platygloeales	
Platygloeaceae	
Helicobasidium purpureum (anamorph Rhizoctonia crocorum)	violet root rot
Oomycota	
Pythiales	
Pythiaceae	
Phytophthora cactorum	phytophthora crown and root rot
Phytophthora cambivora	-
Phytophthora cinnamomi	phytophthora crown and root rot
Phytophthora citricola	brown rot of fruit
Phytophthora citrophthora	citrus brown rot
Phytophthora cryptogea	pink rot
Phytophthora drechsleri	-
Phytophthora megasperma	pink rot
Phytophthora nicotianae	buckeve rot
Phytophthora svringao	navel end brown rot
Dythium irrogularo	nythium root and stom rot
r yuuuu utimum	
Pylillulli ululliulli Zugomuseta: Zugomusetas	IEak
Zyguinycula. Zyguinyceles Muorraloo	
Mucorales	
Mucoraceae	and the second
Mucor piritormis	mucor fruit rot
Rhizopus oryzae	wet rot
Rhizopus stoloniter	rhizopus soft rot
mitosporic fungi (Coelomycetes)	
Sphaeropsidales	
Leptostromataceae	
Gloeodes pomigena	sooty blotch
Sphaerioidaceae	
Botryosphaeria ribis (anamorph Dothiorella ribis)	canker
Fusicoccum amygdali	constriction canker
Macrophomina phaseolina	ashy stem blight
Phoma fimeti	
Phoma nomorum	phoma fruit and leaf spot
Phyllosticta circumscissa	leaf snot
unknown Coelomycetes	
unknown Coelomycetes	
Colletotrichum acutatum	anthracnose
Dostalotionsis adusta	loaf spot
r təsalətlərə auusla Doctolotionesic vərsicələr	nostalationsis ret
rtsidiuliupsis vtisiluliui mitosporio funci (Ilunhomusstos)	heวเขากากควาว เกา
Initospone rungi (nyphomycetes)	
Alternaria alternata	diack stalk rot

Alternaria citri alternaria rot Alternaria panax Alternaria tenuissima alternaria mould Cladosporium cladosporioides cladosporium leaf spot Moniliaceae Aspergillus flavus aspergillus storage rot Aspergillus niger aspergillus rot Penicillium expansum Penicillium funiculosum Penicillium italicum Verticillium albo-atrum Verticillium dahliae Verticillium nigrescens **Tuberculariales** Tuberculariaceae Fusarium oxysporum leaf spot unknown Hyphomycetes unknown Hyphomycetes Stigmina carpophila Trichothecium roseum pink rot Bacterium Enterobacteriaceae Erwinia amylovora Erwinia carotovora subsp. carotovora Pseudomonadaceae Pseudomonas cichorii Pseudomonas fluorescens pink eve Pseudomonas marginalis pv. marginalis Pseudomonas syringae pv. persicae Pseudomonas syringae pv. syringae Pseudomonas viridiflava Xanthomonas arboricola pv. pruni Xanthomonas campestris pv. pruni Rhizobiaceae Rhizobium radiobacter Virus Apple chlorotic leaf spot virus Apple mosaic virus Cherry (sour) green ring mottle virus Cherry leaf roll virus [red raspberry strain] Cherry necrotic rusty mottle virus Cherry rasp leaf virus [American strain] Cucumber mosaic virus Prune dwarf virus Prunus necrotic ringspot virus Strawberry latent ringspot virus Tobacco mosaic virus Tobacco necrosis virus Tobacco ringspot virus Tomato ringspot virus [Grape yellow vein strain] Disease of unknown aetiology Apricot chlorotic leaf mottle agent Apricot moorpark mottle agent Apricot stone pitting agent Cherry rusty spot agent Peach calico agent Peach chlorotic spot agent

blue mould rot fruitlet core rot blue mould verticillium wilt verticillium wilt verticillium wilt shot-hole fire-blight bacterial soft rot bacterial leaf spot leaf spot bacterial canker bacterial soft rot leaf blight bacterial spot crown gall

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Peach seedling chlorosis agent Peach yellow mottle agent Plum fruit crinkle agent Plum mosaic Plum mottle leaf agent

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Inspection, Testing and Treatment Requirements for Prunus

ORGANISM TYPES	MAF-ACCEPTED METHODS (See notes below)
Insects	Visual inspection AND <u>one</u> of the approved insecticide treatments
	(Refer to "Approved Treatments for <i>Prunus</i> ")
Mite	Visual inspection AND <u>one</u> of the approved miticide treatments
	(Refer to "Approved Treatments for Prunus")
Fungi	Growing season inspection in PEQ for disease symptom expression
	AND plating on potato dextrose agar.
Bacterium	
Bacillus mesentericus vulgatus	Growing season inspection in PEQ for disease symptom expression.
Pseudomonas amygdali	Growing season inspection in PEQ for disease symptom expression.
Pseudomonas syringae	Growing season inspection in PEQ for disease symptom expression
pv. cerasicola	AND plating on King's B medium.
Pseudomonas syringae	Growing season inspection in PEQ for disease symptom expression
pv. morsprunorum	AND plating on King's B medium.
Spiroplasma citri	Growing season inspection in PEQ for disease symptom expression.
Xylella fastidiosa	Growing season inspection in PEQ for disease symptom expression
	AND PCR (Minsavage et al., 1994).
Virus	
American plum line pattern	ELISA or PCR AND herbaceous indicators <i>Chenopodium quinoa</i> ,
virus	Cucumis sativus and Nicotiana occidentalis AND TEM.
Apple stem grooving virus	ELISA or PCR AND herbaceous indicator <i>Chenopodium quinoa</i>
[<i>Prunus</i> -infecting strain]	AND TEM.
Apricot deformation mosaic	Woody indicators AND TEM.
virus	
Apricot latent virus	TEM.
Carnation Italian ringspot virus	TEM.
Cherry Hungarian rasp leaf	TEM.
virus	We de indicater AND ELICA en DCD AND herberers indicater
Cherry leaf roll virus [strains	Woody indicators AND ELISA or PCR AND nerbaceous indicators
not in New Zealand	Chenopoaium quinoa, Cucumis sativus and Nicotiana benthamiana
Charmy line pattern and loaf our	AND TEM. Woody indicators AND TEM
virus	woody indicators AND TEW.
Cherry mottle leaf virus	Woody indicators AND FLISA or PCR AND herbaceous indicator
enerry monte reag virus	Chenopodium auinoa AND TEM
Cherry rasp leaf virus [strains	Woody indicators AND herbaceous indicators <i>Chenopodium</i>
not in New Zealand]	auinoa. Cucumis sativus and Nicotiana benthamiana AND TEM.
Cherry rosette disease	Woody indicators AND TEM.
associated virus	
Cherry rough fruit virus	TEM.
Cherry rusty mottle virus	Woody indicators AND TEM.
Cherry twisted leaf virus	Woody indicators AND herbaceous indicator Nicotiana occidentalis
	AND TEM.
Cherry virus A	TEM.
Epirus cherry virus	Woody indicators AND herbaceous indicators Chenopodium

	quinoa, Cucumis sativus and Nicotiana benthamiana AND TEM.
Little cherry virus 1	Woody indicators AND TEM.
Little cherry virus 2	Woody indicators AND TEM.
Little cherry virus 3	Woody indicators AND TEM.
Myrobalan latent ringspot virus	Woody indicators AND herbaceous indicators Chenopodium
	quinoa, Cucumis sativus and Nicotiana benthamiana AND TEM.
Peach enation virus	Woody indicators AND herbaceous indicator <i>Chenopodium quinoa</i> AND TEM.
Peach mosaic virus	Woody indicators AND herbaceous indicator <i>Chenopodium quinoa</i> AND TEM.
Peach rosette mosaic virus	Woody indicators AND ELISA or PCR AND herbaceous indicators <i>Chenopodium quinoa</i> , <i>Cucumis sativus</i> and <i>Nicotiana benthamiana</i> AND TEM.
Peach violet mosaic virus	TEM.
Peach yellow leaf virus	TEM.
Petunia asteroid mosaic virus	Woody indicators AND TEM.
Plum bark necrosis stem pitting-	Woody indicators AND TEM.
associated virus	
Plum pox virus	Woody indicators AND ELISA or PCR (two sets) AND herbaceous indicator <i>Nicotiana benthamiana</i> AND TEM.
Prunus virus S	TEM.
Raspberry ringspot virus	Woody indicators AND herbaceous indicators <i>Chenopodium</i> <i>auinoa</i> , <i>Cucumis sativus</i> and <i>Nicotiana benthamiana</i> AND TEM.
Sowbane mosaic virus	Herbaceous indicator <i>Chenopodium auinoa</i> AND TEM.
Stocky prune virus	TEM.
Tomato black ring virus	ELISA or PCR AND herbaceous indicators <i>Chenopodium quinoa</i> and <i>Cucumis sativus</i> AND TEM
Tomato bushy stunt virus	ELISA or PCR AND herbaceous indicators <i>Chenopodium quinoa</i> , <i>Cucumis sativus</i> and <i>Nicotiana benthamiana</i> AND TEM.
<i>Tomato ringspot virus</i> [strains not in New Zealand]	Woody indicators AND ELISA or PCR AND herbaceous indicators <i>Chenopodium quinoa</i> , <i>Cucumis sativus</i> and <i>Nicotiana benthamiana</i> AND TEM.
Viroid	
Hop stunt viroid	Hybridization or PAGE or PCR.
Peach latent mosaic viroid	Woody indicators AND Hybridization or PAGE or PCR.
Phytoplasmas	Nested PCR using the universal phytoplasma fU5/rU3 (Lorenz <i>et al.</i> 1995) and R16F2n/R16R2 primers (Gundersen <i>et al.</i> 1996).
Diseases of unknown aetiology	Woody indicators AND growing season inspection in PEQ for disease symptom expression.

Notes:

- 1. The unit for testing is an individual plantlet or cutting. Each single plantlet and cutting must be labelled individually and tested separately.
- 2. Transmission electron microscopy (TEM); in the spring, leaves from grafted cuttings must be observed under the electron microscope for virus particles.
- 3. Herbaceous indexing: At least two plants of each herbaceous indicator species must be used in each test. Tests are to be carried out using the new season's growth from grafted cuttings in the spring. Plants shall be sampled from at least two positions on every plant

including a young, fully expanded leaf at the top of each plant and an older leaf from a midway position. Herbaceous indicator plants must be grown under appropriate temperatures and must be shaded for 24 hrs prior to inoculation. Maintain post-inoculated indicator species under appropriate glasshouse conditions for at least 4 weeks. Inspect inoculated indicator plants at least twice per week for symptoms of virus infection.

4. Woody indexing:

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. Moorpark	x3				
<i>Prunus armeniaca</i> cv. Tilton	x3				x3
<i>Prunus avium</i> cv. Bing		x3			
<i>Prunus avium</i> cv. Sam		x3			x3
<i>Prunus domestica</i> cv. Shiroplum		x3	x3		x3
<i>Prunus persica</i> cv. Elberta or GF305	x4	x4	x4	x4	x4
Total indicators	10	13	7	4	13

At least three plants (four plants for *Prunus persica* cv. Elberta or GF305) of each woody indicator must be used in each test. All woody indicators are to be inoculated by double budding. Inoculations are to be carried out using the dormant, imported cuttings during winter. The inoculated woody indicator plants must be inspected for symptoms of pathogen infection for at least 9 months.

- 5. Molecular tests for viroids. Tests are to be carried out on dormant, grafted cuttings during the winter after importation.
- 6. Polymerase chain reaction (PCR) tests for phytoplasmas. Tests are to be carried out on two occasions, firstly using the imported dormant cuttings during winter and secondly using the new season's growth from grafted cuttings during the following summer.
- 7. Enzyme linked immunosorbent assay (ELISA) and PCR tests for viruses. Tests are to be carried out using the new season's growth from grafted cuttings in the spring. Plants shall be sampled from at least two positions on every plant including a young, fully expanded leaflet at the top of each stem and an older leaflet from a midway position.
- 8. All PCR, ELISA and hybridization tests must be validated using positive controls prior to use in quarantine testing. Positive and negative controls (including a blank water control for PCR) must be used in all tests. Ideally positive internal controls and a negative plant control should also be used in PCR tests.
- 9. Inspect *Prunus* plants for signs of pest and disease at least twice per week during periods of active growth and once per week during dormancy.
- 10. With prior notification, MAF will accept other internationally recognised testing methods.

References

- Gundersen, D.E., Lee, I.M. 1996. Ultrasensitive detection of phytoplasmas by nested-PCR assays using two universal primer pairs. *Phytopathologia Mediterranea* 35: 144-151.
- Lorenz, K.H., Scheider, B., Ahrens, U., Seemuller, E. 1995. Detection of the Apple proliferation and Pear decline phytoplasmas by PCR Amplification of ribosomal and nonribosomal DNA. *Phytopathology* 85: 771-776.
- Minsavage G.V., Thompson C.M., Hopkins D.L., Leite R.M.V.B.C., Stall R.E., 1994. Development of a PCR protocol for detection of *Xylella fastidiosa* in plant tissue. *Phytopathology* 84: 456-461.

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

GENERAL CONDITIONS:

Countries: All

Quarantine Pests: Bursaphelenchus spp.; Lophodermium spp.; Uredinales; Xylella fastidiosa

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

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

B. For Tissue Cultures:

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

Pyrus

Scientific name	Commodity Sub-class	Date Issued
Pyrus communis	Cuttings (dormant)	12 June 1998

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

GENERAL CONDITIONS:

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

Quarantine Pests: *Ceratocystis fagacearum*; *Cryphonectria parasitica*; *Cronatium quercuum*; *Phytophthora ramorum*; *Xylella fastidiosa*

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

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

B. For Tissue Cultures:

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

Note: The entry conditions in this schedule only apply to species in the Plants Biosecurity Index listed under Import Specifications for Nursery Stock as "see 155.02.06 under *Ranunculus*", and are additional to those specified in sections 1, 2 and 3 of the import health standard. These conditions do not apply to *Ranunculus arvensis*, *Ranunculus repens* and *Ranunculus sardous*, for which there is currently no import health standard.

GENERAL CONDITIONS:

Countries: All

Quarantine Pests: *Phymatotrichopsis omnivora*; Virus diseases

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

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

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

OPTION 1:

No import permit is required.

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 the USA:

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

PEQ: None or Level 2 (see below)

Additional Declaration(s):

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

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

Phymatotrichopsis omnivora".

OR

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

AND

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

AND

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

D. For Dormant Bulbs from Countries <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."

Rhododendron

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

GENERAL CONDITIONS:

Countries: All

Quarantine Pests: *Microsphaera* spp.; *Ovulinia azaleae*; *Phytophthora ramorum*; Uredinales

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

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

PEQ: Level 2

Minimum Period: 3 months

Additional Declaration:

"The plants have been sourced from a "Pest free area", free from *Phytophthora ramorum*".
 "*Microsphaera* spp., and the following rust diseases are not known to occur on

Rhododendron spp. in _____ (the country or state where the plants were grown) _____"

Aecidium rhododendri; Aecidium sinorhododendri; Chrysomyxa ledi; Chrysomyxa ledicola; Chrysomyxa dieteli; Chrysomyxa expansa; Chrysomyxa himalensis; Chrysomyxa komarovii; Chrysomyxa piperiana; Chrysomyxa roanensis; Chrysomyxa succinea; Chrysomyxa taghishae

Puccinia rhododendri; Pucciniastrum vaccinii

OR

a) All visible flower buds are to be removed prior to export; and

b) On arrival in New Zealand the plant material is to be treated, under the supervision of an Inspector, at a MAF-registered transitional facility by dipping in Benomyl, Carbendazim or Thiophanate methyl [choose one] at a rate of 250mg a.i. per litre.

B. For Tissue Cultures:

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

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

Ribes

Note: The entry conditions in this schedule only apply to species in the Plants Biosecurity Index listed under Import Specifications for Nursery Stock as "see 155.02.06 under *Rosa*", and are additional to those specified in sections 1, 2 and 3 of the import health standard. These conditions do not apply to *Rosa gymnocarpa*, for which there is currently no import health standard.

GENERAL CONDITIONS:

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

Quarantine Pests: Uredinales; Xylella fastidiosa

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

A. For Whole Plants:
PEQ: Level 2
Minimum Period: 6 months
Additional Declaration(s):
1. "The plants have been dipped in propiconazole at the rate of 5g a.i. per 10 litres of water".
2. "The plants have been sourced from a "Pest free area", free from *Xylella fastidiosa*".

B. For Cuttings (dormant):
PEQ: Level 1
Minimum Period: 6 months
Additional Declaration(s):
"The plants have been sourced from a "Pest free area", free from *Xylella fastidiosa*".

C. For Tissue Cultures:

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

Rubus

Scientific name	Commodity Sub-class	Date Issued
Rubus x loganobaccus	Rooted Cuttings /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 *Salix*", and are additional to those specified in sections 1, 2 and 3 of the import health standard.

GENERAL CONDITIONS:

Countries: All

Quarantine Pests: Erwinia salicis, Melampsora spp., Phytophthora ramorum; Xylella fastidiosa

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

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

B. For Tissue Cultures:

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

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

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

Dormant bulbs Plants in tissue culture

2. Pests of Sandersonia

Refer to the pest list.

3. Entry conditions for:

3.1 Sandersonia dormant bulbs from any country

(i) *Documentation*

Phytosanitary certificate: a completed phytosanitary certificate, issued by the national plant protection organisation (NPPO) of the exporting country, is required. **Import permit:** no import permit is required.

(ii) *Phytosanitary requirements*

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

The Sandersonia dormant bulbs have been:

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

AND

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

(iii) Additional declarations to the phytosanitary certificate

No additional declarations are required.

3.2 Sandersonia plants in tissue culture from any country

(i) *Documentation*

Phytosanitary certificate: a completed phytosanitary certificate, issued by the national plant protection organisation (NPPO) of the exporting country, is required. **Import permit:** no import permit is required.

(ii) <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 of Agriculture and Forestry (MAF) have been undertaken.

The Sandersonia plants in tissue culture have been:

- inspected in accordance with appropriate official procedures and found to be free of any visually detectable regulated pests.
- (iv) <u>Additional declarations to the phytosanitary certificate</u> No additional declarations are required.

Pest List for Sandersonia

REGULATED PESTS (actionable)

There are no regulated pests known to be associated with the commodity

NON-REGULATED PESTS(non-actionable)

Mite Arachnida Acarina Histiomidae Histiostoma feroniarum damp mite Fungus Ascomycota Hypocreales Hypocreaceae Gibberella acuminata (anamorph Fusarium acuminatum) fusarium storage rot Gibberella avenacea (anamorph Fusarium avenaceum) fusarium stem canker Gibberella zeae (anamorph Fusarium graminearum) headblight of maize Nectria haematococca (anamorph Fusarium solani) fusarium fruit rot Nectria radicicola (anamorph Cylindrocarpon destructans) rot Leotiales Sclerotiniaceae Botryotinia fuckeliana (anamorph Botrytis cinerea) grey mould Saccharomycetales Dipodascaceae Dipodascus geotrichum (anamorph Geotrichum candidum) sour rot Basidiomycota: Basidiomycetes Ceratobasidiales Ceratobasidiaceae Thanatephorus cucumeris (anamorph Rhizoctonia solani) rhizoctonia rot **Stereales** Atheliaceae Athelia rolfsii (anamorph Sclerotium rolfsii) Rolf's disease mitosporic fungi (Coelomycetes) Sphaeropsidales Sphaerioidaceae Phoma exigua phoma rot Pyrenochaeta terrestris pink root rot mitosporic fungi (Hyphomycetes) Tuberculariales Tuberculariaceae Fusarium culmorum dry rot Fusarium oxysporum leaf spot decline Fusarium sacchari **Bacterium** Enterobacteriaceae Pectobacterium carotovorum bacterial soft rot Virus

Cucumber mosaic virus

Solanum tuberosum

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

1. Type of *Solanum tuberosum* nursery stock approved for entry into New Zealand Plants in tissue culture

Solanum tuberosum can be imported into New Zealand as plants in tissue culture from any country.

2. Pests of Solanum tuberosum

Refer to the pest list.

3. Entry conditions for:

3.1 Solanum tuberosum plants in tissue culture from any country

(i) *Documentation*

Import permit is required

Declaration for genetically modified organisms is required: Refer to section 5 for details. **Phytosanitary certificate:** a completed phytosanitary certificate issued by the exporting country national plant protection organisation (NPPO) must accompany all *Solanum tuberosum* plants in tissue culture exported to New Zealand.

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

The tissue culture media must not contain charcoal.

(iii) *Phytosanitary requirements*

The exporting country NPPO must be satisfied that the requirements of the model phytosanitary certificate have been met before the phytosanitary certificate is issued.

(iv) Additional declarations to the phytosanitary certificate

There are no additional declarations to the phytosanitary certificate.

(v) Inspection, testing and treatments of the consignment

Upon arrival, the inspection, treatment and testing requirements for specified pests must be undertaken at a New Zealand Level 3 MAF-accredited facility. Refer to *Solanum tuberosum* Inspection and Testing Requirements following the *Solanum tuberosum* pest list.

(vi) *Post-entry quarantine*

PEQ: Level 3

Quarantine Period: This is the time required to complete inspections and/or indexing to detect regulated pests. 6 months is an indicative minimum quarantine period. The quarantine period may be extended if material is slow growing, pests are detected or additional treatments/testing are required.

4. Validation of test results and audit of treatments at MAF-accredited laboratories or facilities

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

5. Declaration for genetically modified organisms

All import permit applications must include a signed declaration that the *Solanum tuberosum* plants in tissue culture are not genetically modified organisms, as defined by the New Zealand Hazardous Substances and New Organisms Act 1996 (HSNO Act, 1996). For a copy of the declaration form refer to the end of this schedule.

Pest List for Solanum tuberosum

REGULATED PESTS (actionable)

Mite	
Arachnida	
Acarina	
Tetranychidae	
Tetranychus evansi	tetranychid mite
Franci -	
Fungi	
Chytridiomycota	
Chytridiales	
Synchytriaceae	
Synchytrium endobioticum [omicial control]	potato wart
Mitosporic Fungi (Coelomycetes)	
Sphaeropsidales	
Spnaerioidaceae	
Phoma andigena var. andina	pnoma leal spot
Mitosporic Fungi	
Unknown Mitosporic Fungi	
Unknown Mitosporic Fungi	
Aecidium cantensis	deforming rust
Uomycota	
Pythiaes	
Pythiaceae	
Phytophthora infestans [A2 matting strain]	late blight
Bacteria	
Corynebacteriaceae	
Clavibacter michiganensis subsp. sepedonicus	potato ring rot
Enterobacteriaceae	
Erwinia carotovora subsp. betavasculorum	bacterial sudden yellows death
Erwinia chrysanthemi pv. chrysanthemi	bacterial soft rot
Erwinia chrysanthemi pv. paradisiaca	-
Erwinia chrysanthemi pv. parthenii	-
Viroids	
Columnoa latont viroid*	
Potato spindle tuber viroid [transient]	
Tomato chlorotic dwarf viroid (transient)	_
Tomato chilofolic uwan virold Tomato planta macho virold*	-
	-
Viruses	
Abutilon mosaic begomovirus*	-
Arracacha A nepovirus*	-
Arracacha B nepovirus	-
Asparagus 3 potexvirus*	-
Beet curly top curtovirus	-
Cassava green mottle nepovirus*	-
Cassia mild mosaic carlavirus*	-
Eggplant mosaic tymovirus*	-
Eggplant mottled dwarf nucleorhabdovirus	-
Henbane mosaic potyvirus*	-
Melilotus mosaic potyvirus*	-
Pelargonium line pattern carmovirus*	-
Pepino mosaic potexvirus*	-
Pepper veinal mottle potyvirus*	-
Potato 14R tobamovirus Potato Andean latent tymovirus Potato Andean mottle comovirus Potato black ringspot nepovirus Potato deforming mosaic begomovirus Potato latent carlavirus Potato mop-top furovirus Potato P carlavirus Potato rough dwarf carlavirus Potato T trichovirus Potato U nepovirus Potato V potyvirus Potato 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 yellows 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 black ring nepovirus 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 Eggplant little leaf phytoplasma Peanut witches' broom* Potato marginal flavescence Potato phyllody phytoplasma Potato purple-top roll phytoplasma Potato purple-top wilt 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).

NON-REGULATED PESTS (non-actionable)

Fungi	
Ascomycota	
Erysiphales	
Erysiphaceae	
Erysiphe cichoracearum (anamorph Oidium asteris-punicei)	powdery mildew
Ascomycota	
Hypocreales	
Hypocreaceae	
Gibberella avenacea (anamorph Fusarium avenaceum)	Fusarium stem canker
Basidiomycota: Basidiomycetes	
Stereales	
Atheliaceae	
Athelia rolfsii (anamorph Sclerotium rolfsii)	Rolf's disease
Mitosporic Fungi (Coelomycetes)	
Sphaeropsidales	
Sphaerioidaceae	
Phoma destructiva	bulb rot
Phoma exigua var. exigua	gangrene
Phoma foveata	gangrene
Sentoria loconersici	leaf spot
Linknown Coelomycetes	loui spor
Unknown Coelomycetes	
Colletotrichum coccodes	Anthracnose
Mitosporic Fungi (Hyphomycetes)	/ manadhose
Hyphomycetales	
Dematiaceae	
Alternaria alternata	black stalk rot
Alternaria solani	leaf snot
l llocladium atrum	foliage spot
Moniliaceae	lollage spor
Vorticillium albo atrum	verticillium wilt
Verticillium dabliae	vorticillium wilt
Verticillium nigroscons	vorticillium wilt
Verticillium trigerous	vorticillium wilt
Tuborcularialos	
Tuborculariacoao	
	loaf chot
Fusarium colonif, cp. cumartii	ieai sput
rusallulli solalili. sp. eulilalili Domucota	-
Duthialac	
Pythiacoao	
Phytophthora infactors [A1 mating strain]	lata blight
	Idle blight
Pactoria	
Dauleila	
	hasterial contrar
<i>Clavibacier michiganensis</i> subsp. <i>michiganensis</i>	bacterial canker
Enteropacteriaceae	heaterial asft ast
<i>Erwinia carolovora</i> subsp. <i>alroseplica</i>	bacterial soit rot
<i>Erwinia carolovora</i> subsp. <i>carolovora</i>	Dacterial Soft fot
Erwinia cnrysantnemi pv. diettenbachii	-
Pseudomonadaceae	hastadal - 0 - 1
Pseudomonas syringae pv. syringae	pacterial soft rot
Raistonia solanacearum (Race 1)	pacterial wilt
Raistonia solanacearum (Race 3)	bacterial wilt
Xanthomonas vesicatoria	bacterial spot
Rhizodiaceae	

Agrobacterium rhizogenes	hairy root
Agrobacterium tumefaciens	crown gall

Viruses

Alfalfa mosaic alfamovirus	-
Cucumber mosaic cucumovirus	-
Potato A potyvirus	-
Potato M carlavirus	-
Potato S carlavirus	-
Potato X potexvirus	-
Potato Y potyvirus [C, N and O strains]	-
Potato aucuba mosaic potexvirus	-
Potato leafroll luteovirus	-
Tobacco mosaic tobamovirus	-
Tobacco necrosis necrovirus [A strain]	-
Tobacco rattle tobravirus [Paeonia and Narcissus infecting	-
strains]	
Tobacco ringspot nepovirus	-
Tobacco streak ilarvirus [Black raspberry latent strain]	-
Tomato mosaic tobamovirus	-
Tomato spotted wilt tospovirus	-

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

ORGANISM TYPES	ACCEPTABLE METHODS	Comments
	(See Note 6 at the end of this table).	
Mites	Binocular microscope inspection.	
Fungi		
Aecidium cantensis	Growing season inspection in PEQ for symptom expression.	
Phoma andigena var. andina	Growing season inspection in PEQ for symptom expression.	
<i>Phytophthora infestans</i> (A2 mating strain)	Growing season inspection in PEQ for symptom expression.	
<i>Synchytrium endobioticum</i> [official control]	Growing season inspection in PEQ for symptom expression.	<i>S. endobioticum</i> cannot be cultured. It is identified by microscopic examination of affected plants. This organism belongs to the Myxomycetes in the Kingdom Protozoa.
Bacteria		
Clavibacter michiganensis subsp. sepedonicus	Growing season inspection in PEQ for symptom expression AND Immunofluorescence (monoclonal antibody, clone 9A1, Agdia) OR ELISA AND grow plantlets on Murashige and Skoog medium (see note 18) OR PCR (Pastrik 2000) AND grow plantlets on Murashige and Skoog medium (see note 18).	
Erwinia carotovora subsp. betavasculorum	Growing season inspection in PEQ for symptom expression AND plating on selective pectate media e.g. crystal violet pectate medium.	Possible synonym <i>Pectobacterium</i> <i>betavasculorum</i> (Gardan <i>et al.</i> , 2003). The taxonomy is in dispute. These testing methods will only detect to the species level. Further identification required for subspecies.
Erwinia chrysanthemi pv. chrysanthemi	Growing season inspection in PEQ for symptom expression AND plating on selective pectate media.	These testing methods will only detect to the species level. Further identificationrequired for subspecies.
Erwinia chrysanthemi pv. paradisiaca	Growing season inspection in PEQ for symptom expression AND plating on selective pectate media.	These testing methods will only detect to the species level. Further identification required for subspecies.
Erwinia chrysanthemi pv. parthenii	Growing season inspection in PEQ for symptom expression AND plating on selective pectate media.	These testing methods will only detect to the species level. Further identification required for subspecies.

Viroid		
Potato spindle tuber viroid [transient]	PCR using two sets of primers (e.g. Shamloul <i>et al.</i> 1997 and Nakahara <i>et al.</i> 1999) OR Return PAGE (with silver staining) OR Hybridisation (P32 or digoxigenin labelled RNA probes).	
Viruses		
Arracacha B nepovirus	ELISA AND herbaceous indicators Ca (4 plants) AND TEM.	Sap transmitted with difficulty. ELISA must detect the oca strain
Beet curly top curtovirus	PCR using primers of Rojas <i>et al.</i> 1993 AND TEM.	Cannot be transmitted by sap inoculation
Eggplant mottled dwarf nucleorhabdovirus	Herbaceous indicators Nb, Nc, Nd AND TEM.	
Potato 14R tobamovirus	Growing season inspection in PEQ for symptom expression.	Not fully characterised.
Potato Andean latent tymovirus	ELISA AND herbaceous indicators Nb, No AND TEM.	
Potato Andean mottle comovirus	ELISA AND herbaceous indicators Nc, Nd AND TEM.	
Potato black ringspot nepovirus	ELISA AND herbaceous indicators Cq, No AND TEM.	
Potato deforming mosaic begomovirus	PCR using universal primers of Rojas <i>et al.</i> (1993) or Wyatt and Brown (1996) OR the universal ELISA for begomoviruses (Agdia) AND TEM.	Virus not transmitted by sap inoculation.
Potato latent carlavirus	PCR using universal primers for carlavirus (Badge <i>et al.</i> 1996) AND TEM.	The use of indicator plants is unreliable.
Potato mop-top furovirus	ELISA AND herbaceous indicators Ca, Cq, Nd AND TEM.	ELISA can be used to detect the virus in indicator plants but may not be reliable for potato in which virus is usually in low concentration or erratically distributed.
Potato P carlavirus	PCR using universal primers for carlavirus (Badge <i>et al.</i> 1996) AND TEM.	Infected indicator plants do not produce symptoms.
Potato rough dwarf carlavirus	PCR using universal primers for carlavirus (Badge <i>et al.</i> 1996) AND TEM.	Sap inoculation of indicator plants is unreliable.
Potato T trichovirus	Herbaceous indicators Ca, Cq AND ELISA AND TEM.	
Potato U nepovirus	Herbaceous indicators Ca, Cq AND TEM.	Transmitted by sap with difficulty.
Potato V potyvirus	General potyvirus ELISA or PCR using universal potyvirus primers (Langeveld <i>et al.</i> 1991 or Pappu <i>et al.</i> 1993 or Gibbs & Mackenzie 1997) AND TEM.	

Potato Y potyvirus [strains not in NZ]	General potyvirus ELISA or PCR using	
	universal potyvirus primers (Langeveld	
	et al 1991 or Pappu et al 1993 or	
	Cibbs & Mackanzia 1007) AND	
	harbagenes indicators Nh. No. AND	
	TEM	
Potato yellow dwarf nucleorhabdovirus	Herbaceous indicators Nc (4 plants)	
	AND TEM.	
Potato yellow mosaic begomovirus	Herbaceous indicators Nb, Nt AND	
	TEM.	
Potato yellow vein crinivirus	PCR or hybridisation according to	Crinivirus cannot be transmitted by sap
	Salazar et al. 2000 AND TEM.	inoculation.
Potato yellowing alfamovirus	ELISA AND TEM.	Transmission may be unreliable by sap
		inoculation.
Solanum apical leaf curling	Growing season inspection in PEO for	Cannot be transmitted by sap
begomovirus	symptom expression	inoculation Tentative species in
begomovirus	symptom expression.	hogomovirus gonus
	Cremine access in martine in DEO for	begomovitus genus
Solanum yellows luteovirus	Growing season inspection in PEQ for	
	symptom expression.	
Southern potato latent ?carlavirus	Growing season inspection in PEQ for	Tentative member of carlavirus family.
	symptom expression.	
Sowbane mosaic sobemovirus	Herbaceous indicators Cq, Ca AND	
	TEM.	
Tobacco necrosis necrovirus [strains	Herbaceous indicators Ca, Cq, Nc AND	Tobacco necrosis virus A Tobacco
not in New Zealand]	TEM.	necrosis virus B
Tobacco rattle tobravirus [strains not in	PCR AND herbaceous indicators Ca	Serological detection is unreliable
New Zealand	N _c AND TFM	because of diversity in the particle
		proteins of different isolates
Tabaaaa streets ileminus [streins not in	Harbanana indiantara Nt (4 mlanta)	Poteto strain SP10 infacto notato
New Zeelend	AND TEM	rotato strain SB10 infects potato
New Zealand	AND IEM.	
Tomato black ring nepovirus	ELISA AND herbaceous indicators Ca,	Considerable antigenic variation
	Cq, NC AND TEM.	therefore use mixture of antibodies to
		the two main serotypes – potato
		bouquet and pseudo aucuba strains and
		the beet ringspot strain.
Tomato infectious chlorosis crinivirus	PCR using method of Li et al. (1998)	Cannot be transmitted by sap
	AND TEM.	inoculation.
Tomato leaf curl begomovirus –New	Herbaceous indicators Nb (4 plants)	Potato leaf curl is a new disease in
Delhi	AND TEM.	northern India caused by a strain of
		Tomato leaf curl new Delhi virus
		Tomato lear curriew Denni virus.
		A rare example of a cap transmissiple
		heremoving
I omato yellow leaf curl begomovirus	PCR using universal primers of Rojas <i>et</i>	I ransmitted poorly by sap inoculation.
	<i>al.</i> (1993) or Wyatt and Brown (1996)	
	OR the universal ELISA for	
	begomoviruses (Agdia) AND TEM.	
Tomato yellow mosaic begomovirus	PCR using universal primers of Rojas et	
	al. (1993) or Wyatt and Brown (1996)	
	OR the universal ELISA for	
	begomoviruses (Agdia) AND	
	herbaceous indicators Nh Nt AND	
	TEM	
Wild potato mosaic potywirus	Herbaceous indicators No. No. AND	
, na potato mosare poryvirus	TEM	
1	11/141.	

Phytoplasmas		
Eggplant little leaf phytoplasma	PCR using the universal phytoplasma primers fU5/rU3 (Lorenz <i>et al.</i> 1995) AND R16F2n/R16R2 (Gundersen <i>et al.</i> 1996).	
Potato marginal flavescence	PCR using the universal phytoplasma primers fU5/rU3 (Lorenz <i>et al.</i> 1995) AND R16F2n/R16R2 (Gundersen <i>et al.</i> 1996).	
Potato phyllody phytoplasma	PCR using the universal phytoplasma primers fU5/rU3 (Lorenz <i>et al.</i> 1995) AND R16F2n/R16R2 (Gundersen <i>et al.</i> 1996).	
Potato purple-top roll phytoplasma	PCR using the universal phytoplasma primers fU5/rU3 (Lorenz <i>et al.</i> 1995) AND R16F2n/R16R2 (Gundersen <i>et al.</i> 1996).	
Potato purple-top wilt phytoplasma	PCR using the universal phytoplasma primers fU5/rU3 (Lorenz <i>et al.</i> 1995) AND R16F2n/R16R2 (Gundersen <i>et al.</i> 1996).	
Potato round leaf phytoplasma	PCR using the universal phytoplasma primers fU5/rU3 (Lorenz <i>et al.</i> 1995) AND R16F2n/R16R2 (Gundersen <i>et al.</i> 1996).	
Potato stolbur phytoplasma	PCR using the universal phytoplasma primers fU5/rU3 (Lorenz <i>et al.</i> 1995) AND R16F2n/R16R2 (Gundersen <i>et al.</i> 1996).	
Potato witches' broom phytoplasma	PCR using the universal phytoplasma primers fU5/rU3 (Lorenz <i>et al.</i> 1995) AND R16F2n/R16R2 (Gundersen <i>et al.</i> 1996).	
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.

Columnea latent viroid*	No evidence that this viroid infects	
	potato naturally.	
Tomato chlorotic dwarf viroid*	Tests that would detect this viroid are	
	already being conducted elsewhere in	
	this schedule e.g. the herbaceous	
	indicator Nd.	
Tomato planta macho viroid*	No evidence that this viroid infects	
	potato naturally (Galindo et al. 1982).	

Abutilon mosaic begomovirus*	Tests that would detect this virus are	
C C	already being conducted elsewhere in	
	this schedule e α the universal PCR or	
	ELISA tests for begomoviruses	
A	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	
I Contraction	already being conducted elsewhere in	
	this schedule e.g. the indicator Ca and	
	No	
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, a g, the universal DCD for	
	uns schedule, e.g. the universal FCK for	
	carlaviruses.	
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	
Trenoune mosure pory mus	already being conducted elsewhere in	
	this schedule, a g, the general not wire	
	this schedule, e.g. the general polyvirus	
	ELISA or PCR using universal	
	potyvirus primers (Langeveld <i>et al</i> .	
	1991 or Pappu <i>et al.</i> 1993 or Gibbs &	
	Mackenzie 1997).	
Melilotus mosaic potyvirus*	Tests that would detect this virus are	
1 5	already being conducted elsewhere in	
	this schedule e.g. the indicator Ca	
Delergonium line pettern cormovirus*	Tests that would detect this virus are	
relargomum me pattern carmovirus	almodel hairs and detect this virus are	
	already being conducted elsewhere in	
	this schedule, e.g. the indicators Cq and	
	Ca.	
Pepino mosaic potexvirus*	Tests that would detect this virus are	
· ·	already being conducted elsewhere in	
	this schedule e.g. the indicator Nc	
Penner voinal mottle potyvirus*	Tosts that would datact this virus are	
repper ventar mottle potyvirus	almodel hairs and 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	
1 7	already being conducted elsewhere in	
	this schedule e.g. the indicators Ca and	
	Co	
Tabaaaa waanatia dhuuuf lutaanimaa*	Ca.	
Tobacco necrotic dwarf futeovirus*	No appropriate test available.	
Tobacco stunt varicosavirus*	Tests that would detect this virus are	
	already being conducted elsewhere in	
	this schedule, e.g. the indicator Ca.	
Tomato bushy stunt tombusvirus*	Tests that would detect this virus are	
	already being conducted elsewhere in	
	this schedule e.g. the indicators Ca and	
	No	
	INC.	

Tomato leaf curl begomovirus -	Tests that would detect this virus are	
Australia*	already being conducted elsewhere in	
	this schedule e.g. the universal PCR or	
	ELISA for begomovirus.	
Tomato top necrosis nepovirus*	Tests that would detect this virus are	
	already being conducted elsewhere in	
	this schedule, e.g. the indicator Cq.	
Tomato yellow vein streak	Tests that would detect this virus are	
begomovirus*	already being conducted elsewhere in	
	this schedule, e.g. the universal PCR or	
	ELISA for begomovirus.	
Peanut witches' broom*	Tests that would detect this	
	phytoplasma are already being	
	conducted elsewhere in this schedule,	
	e.g. the universal PCR for	
	phytoplasma.	

Notes:

- 1. Transmission electron microscopy (TEM) each plant must be observed under the TEM for virus particles.
- 2. Indicator hosts: *Chenopodium amaranticolour* (Ca), *C. quinoa* (Cq), *Nicotiana benthamiana* (Nb), *N. clevelandii* (Nc), *N. debneyii* (Nd), *N. occidentalis* P1 (No) and *N. tabacum* (cv White Burley) (Nt).
- 3. Enzyme linked immunosorbent assay (ELISA).
- 4. Polymerase chain reaction (PCR).
- 5. Polyacrylamide gel electrophoresis (PAGE).
- 6. With prior notification, MAF will accept other internationally recognised testing methods.
- 7. For bioassay and <u>ELISA</u>, plants must be sampled from at least two positions on every stem including a young, fully expanded leaflet at the top of each stem and an older leaflet from a midway position (Jeffries, 1998).
- 8. For the PSTVd PCR young actively growing leaf tissue must be used.
- 9. Indicator plants must be grown at an appropriate temperature prior to inoculation.
- 10. Indicator plants must be shaded for 12-24 hrs prior to inoculation.
- 11. Maintain post-inoculated indicator species under appropriate glasshouse conditions for at least 4 weeks.
- 12. Inspect potato plants at least once per week for signs of pest and disease.
- 13. Inspect inoculated herbaceous indicator plants at least twice per week for symptoms of virus infection.
- 14. The unit for testing is an individual plantlet. Each single plantlet must be labelled individually and tested separately. Progeny derived from these units after arrival can be treated as equivalent.
- 15. PCR, hybridisation tests and ELISA need to be validated using positive controls/reference material prior to use in quarantine testing.
- 16. At least two plants of each indicator species stated must be used in mechanical inoculation tests, unless otherwise stated.
- 17. Plantlets in growth media must be de-flasked and grown in quarantine for virus disease testing.
- 18. *Clavibacter michiganensis* subsp. *sepedonicus* grows well in microplants on Murashige and Skoog media. However there are usually no symptoms in this phase even though there could be high populations of bacteria, after potting up symptoms develop quickly (Dr D. Stead, Central Science Laboratory (York, UK), pers. comm. 2002).
- 19. After plantlets are deflasked they must be grown in sterile potting mix.
- 20. Testing must be carried out on plants while they are still in active growth and before tubers form.
- 21. For the general potyvirus ELISA, it is important to check that the potyvirus to be tested for is detected by the antisera being used. Agdia state that their general potyvirus ELISA will detect all aphid- transmitted potyviruses.
- 22. Erwinia carotovora ssp. carotovora, E. carotovora ssp. atroseptica and E. chrysanthemi have recently been classified in the genus *Pectobacterium* as *P*. ssp. carotovorum, *P*. carotovorum ssp. atrosepticum and *P*. chrysanthemi (Hauben et al., 1998; cited in Perombelon 2002).
- 23. Only plants grown in tissue culture will be released from quarantine.
- 24. Positive and negative controls must be used in ELISA.

25. Positive and negative controls (including a blank water control) must be used in PCR. Ideally internal positive controls and a negative plant control must also be used.

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Appendix 1. Quarantine Tests for Potato Viruses and Viroid

(\star = accepted test, sp = specific ELISA, u = universal primers or ELISA) Grey background = not easily mechanically transmissible.

Virus	PCR	ELISA	TEM	Ca	Cq	Nb	Nc	Nd	No	Nt
Arracacha B nepovirus		★ sp	☆	★ 4 plants						
Beet curly top curtovirus	★u		*							
Eggplant mottled dwarf			*			*	☆	☆		
nucleorhabdovirus										
Potato Andean latent tymovirus		★ sp	*			*			☆	
Potato Andean mottle comovirus		★ sp	*				☆	*		
Potato black ringspot nepovirus		★ sp	*		*				☆	
Potato deforming mosaic	★ u	★u	*							
begomovirus										
Potato latent carlavirus	★u	*								
Potato mop top furovirus		★ sp	*	☆	*			*		
Potato P carlavirus	★u		*							
Potato rough dwarf carlavirus	★u		*							
Potato spindle tuber viroid	\star sp or PAGE									
[transient]	or hybridisation									
Potato T trichovirus		★ sp	*	☆	*					
Potato U nepovirus			*	☆	☆					
Potato V potyvirus	★u	★u	☆							
Potato Y potyvirus [strains not in New Zealand]	★u	★ u	☆			*			☆	
Potato yellow dwarf			*				★4			
nucleorhabdovirus							plants			
Potato yellow mosaic begomovirus			*			*				★
Potato yellow vein crinivirus	★ sp or hybridisation		*							
Potato yellowing alfamovirus		★ sp	*							
Sowbane mosaic sobemovirus			☆	*	*					
Tobacco necrosis necrovirus [strains			☆	*	*		*			
not in New Zealand]										
Tobacco rattle tobravirus [strains not in New Zealand]	★ sp		☆	☆			*			
Tobacco streak ilarvirus [strains not			☆							★4
in New Zealand]										plants
Tomato black ring nepovirus		★ sp	☆	☆	*		☆			
Tomato infectious chlorosis	★ sp		*							
crinivirus										
Tomato leaf curl begomovirus -New			*			★4				
Delhi						plants				
Tomato yellow leaf curl	★u	★u	☆							
begomovirus										
Tomato yellow mosaic begomovirus	★u	★u	☆			☆				*
Wild potato mosaic potyvirus			*				☆		★	



Ministry of Agriculture and Forestry Te Manatu Ahuwhenua, Ngaherehere

DECLARATION FOR GENETICALLY MODIFIED ORGANISMS

I..... declare, pursuant to Section 123 of the New Zealand Hazardous Substances and New Organisms Act 1996, that the *Solanum tuberosum* plants in tissue culture being imported are not genetically modified organisms.

genetically modified organism means, unless expressly provided otherwise by regulations, any organism in which any of the genes or any other genetic material have been modified by in vitro techniques or are inherited or otherwise derived, through any number of replications, from any genes or other genetic material which has been modified by in vitro techniques (as defined by the New Zealand HSNO Act 1996).

Signed by (print name):

Company Name and Details (if appropriate):

Signature:

Date:

Warning: Any person knowingly importing a genetically modified organism without proper authorisation may, on conviction, be sentenced to a term of imprisonment and/or a fine not exceeding \$500,000.00. The making of this declaration does not provide an exemption from any provisions of the Hazardous Substances and New Organisms Act 1996.

Biosecurity New Zealand Standard 155.02.06: Importation of Nursery Stock

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

GENERAL CONDITIONS:

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

Quarantine Pests: Aster yellows phytoplasma, Uredinales; Xylella fastidiosa

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

A. For Whole Plants: PEQ: Level 2 Minimum Period: 3 months Additional Declarations:

1. "Aster yellows phytoplasma is not known to occur in _____ (the country or state where the plants were grown) ____".

2. "The plants have been sourced from a "Pest free area", free from Xylella fastidiosa".

B. For Tissue Cultures:

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

Additional Declaration:

"The cultures have been derived from parent stock tested or inspected and found free of Aster yellows phytoplasma".

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

GENERAL CONDITIONS:

Countries: All

Quarantine Pests: Virus & virus-like diseases

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

A. For Whole Plants:

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

Additional Declaration:

"The plants were inspected during the growing season and no symptoms of viruses or virus-like diseases were detected".

B. For Tissue Cultures:

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

PLUS

Additional Declaration:

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

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

GENERAL CONDITIONS:

Countries: All

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

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

B. For Plants in Tissue Culture:

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

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

GENERAL CONDITIONS:

Countries: All

Quarantine Pests: Tetranychus kanzawai

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

A. For Whole Plants: PEQ: Level 2

Minimum Period: 3 months

Additional Declaration:

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

B. For Tissue Cultures:

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

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

GENERAL CONDITIONS:

Countries: All

Quarantine Pests: Puccinia gladioli

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

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

Additional Declarations:

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

"The plants were inspected during the growing season and *Puccinia gladioli* was not detected".

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

OPTION 1:

No import permit is required. PEQ: None Cleanliness: Bulbs (corms) must be free of leafy coverings. Additional Declaration(s):

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

OPTION 2:

PEQ: Level 1 **Minimum Period:** 3 months **Cleanliness:** Bulbs (corms) must be free of leafy coverings. C. For Dormant Bulbs from Countries <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 of Agriculture and Forestry (MAF) have been undertaken.

The *Tulipa* dormant bulbs have been:

- inspected in accordance with appropriate official procedures and found to be free of any visually detectable regulated pests including *Fusarium oxysporum* f. sp. *tulipae* OR treated for regulated fungi as described in section 2.2.1.7 of the basic conditions within 7 days prior to freezing, cold-storage or shipment.

AND

sourced from a "Pest free area", "Pest free place of production" or "Pest free production site", free from regulated nematodes and fungi (except *Fusarium oxysporum* f. sp. *tulipae*) OR treated for regulated nematodes and fungi as described in section 2.2.1.7 of the basic conditions within 7 days prior to freezing, cold-storage or shipment.

AND

- sourced from a "Pest free area", "Pest free place of production" or "Pest free production site", free from regulated bacteria and viruses.

AND

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

AND

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

(iii) Additional declarations to the phytosanitary certificate

If satisfied that the pre-shipment activities have been undertaken, the exporting country NPPO must confirm this by recording the treatments applied in the "Disinfestation and/or

Disinfection Treatment" section, and by providing the following additional declaration to the phytosanitary certificate:

"The *Tulipa* dormant bulbs in this consignment have been:

- inspected in accordance with appropriate official procedures and found to be free of any visually detectable regulated pests including *Fusarium oxysporum* f. sp. *tulipae*.

AND

- sourced from a "Pest free area", "Pest free place of production" or "Pest free production site", free from regulated nematodes and fungi [if applicable].

AND

- sourced from a "Pest free area", "Pest free place of production" or "Pest free production site", free from regulated bacteria and viruses."

(iv) *Post-entry quarantine*

PEQ: Level 1

Quarantine Period: This is the time required to complete inspections and/or testing to detect regulated pests. Three months is an indicative minimum quarantine period. The quarantine period may be extended if material is slow growing, pests are detected, or treatments/testing are required. Cut flowers may receive biosecurity clearance while the imported plants remain in post-entry quarantine following inspection of the parent plants and with prior approval from a MAF Inspector.

3.2 Tulipa dormant bulbs from the Netherlands

(i) *Documentation*

Phytosanitary certificate: a completed phytosanitary certificate, issued by the national plant protection organisation (NPPO) of the exporting country, is required. **Import permit:** no import permit is required.

(ii) <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 (MAF) have been undertaken.

The *Tulipa* dormant bulbs have been:

produced in accordance with the requirements of the Bloembollenkeuringsdienst (BKD) Class 1 bulb certification scheme.

AND

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

AND

sourced from a "Pest free area", "Pest free place of production" or "Pest free production site", free from regulated nematodes and fungi OR treated for regulated nematodes and fungi as described in section 2.2.1.7 of the basic conditions within 7 days prior to freezing, cold-storage or shipment.

AND

- sourced from a "Pest free area", "Pest free place of production" or "Pest free production site", free from regulated bacteria and viruses.

AND

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

AND

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

(iii) Additional declarations to the phytosanitary certificate

If satisfied that the pre-shipment activities have been undertaken, the exporting country NPPO must confirm this by recording the treatments applied in the "Disinfestation and/or Disinfection Treatment" section, and by providing the following additional declaration to the phytosanitary certificate:

"The *Tulipa* dormant bulbs in this consignment have been:

- produced in accordance with the requirements of the BKD Class 1 bulb certification scheme.

AND

- sourced from a "Pest free area", "Pest free place of production" or "Pest free production site", free from regulated nematodes and fungi [if applicable].

AND

- sourced from a "Pest free area", "Pest free place of production" or "Pest free production site", free from regulated bacteria and viruses."

(iv) *Post-entry quarantine*

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

3.3 Tulipa plants in tissue culture from any country

(i) *Documentation*

Phytosanitary certificate: a completed phytosanitary certificate, issued by the national plant protection organisation (NPPO) of the exporting country, is required. **Import permit:** no import permit is required.

(ii) <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 of Agriculture and Forestry (MAF) have been undertaken.

The *Tulipa* plants in tissue culture have been:

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

AND

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

AND

- derived from parent stock tested using molecular/ serological methods [choose ONE option] and found free of *Tobacco rattle virus*, *Tomato black ring virus* and *Tomato bushy stunt virus*.

(iv) Additional declarations to the phytosanitary certificate

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

"The *Tulipa* plants in tissue culture have been derived from parent stock:

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

AND

tested using molecular/ serological methods [choose ONE option] and found free of *Tobacco rattle virus*, *Tomato black ring virus* and *Tomato bushy stunt virus*."

(iv) Post-entry quarantine

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

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

Import permit: an import permit is required.

PEQ: Level 3

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

Pest List for Tulipa

REGULATED PESTS (actionable)

Insect	
Insecta	
Diptera	
Anthomyiidae	
Delia antiqua	onion maggot
Homoptera	
Aphididae	
Rhopalosiphoninus staphyleae tulipaellus	tulip leaf aphid
Orthoptera	
Gryllotalpidae	
Gryllotalpa gryllotalpa	mole cricket
Inysanoptera	
I hripidae	
l aeniothrips eucharii	oriental thrips
Mite	
Arachnida	
Acarina	
Eriophyidae	
Aceria tulipae [vector]	wheat curl mite
Nematode	
Adenophorea	
Dorvlaimida	
Longidoridae	
Xiphimena coxi	dagger nematode
Trichodoridae	33
Paratrichodorus pachydermus [vector]	stubby root nematode
Paratrichodorus teres	stubby root nematode
Trichodorus similis	stubby root nematode
Secernentea	5
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

mitosporic fungi (Hyphomycetes) Tuberculariales Tuberculariaceae <i>Fusarium oxysporum</i> f. sp. <i>tulipae</i>	fusarium bulb rot
Bacterium Corynebacteriaceae Curtobacterium flaccumfaciens pv. oortii	yellow pock
Virus <i>Cymbidium ringspot virus</i> <i>Tobacco rattle virus</i> [strains not in New Zealand] <i>Tomato black ring virus</i> <i>Tomato bushy stunt virus</i> <i>Tomato ringspot virus</i> [strains not in New Zealand] <i>Tulip grey virus</i> (syn. <i>Tulip severe mosaic virus</i>) <i>Tulip halo necrosis virus</i> <i>Tulip mild mosaic virus</i> <i>Tulip mild mosaic virus</i> <i>Tulip virus</i> X <i>Wa tulip virus</i>	- - - - - - - - - - - - -

NON-REGULATED PESTS (non-actionable)

Insect Insecta Diptera Symbidae	
Merodon equestris	narcissus bulb fly
Aphididae	
Aulacorthum circumflexum	mottled arum aphid
Dysaphis tulipae	tulip bulb aphid
Rhopalosiphoninus latysiphon Rhopalosiphoninus staphyleae	hop aphid
Mite	
Arachida	
Acaridae	
Rhizoalvphus echinopus	bulb mite
Rhizoglyphus robini	bulb mite
Eriophyidae	
Aceria tulipae	wheat curl mite
Nematode	
Adenophorea	
Dorylaimida	
Longidoridae	noodlo nomatodo
Xinhinema americanum	American dagger nematode
Trichodoridae	American dagger hematode
Paratrichodorus pachydermus	stubby root nematode
Secementea	5
Tylenchida	
Aphelenchoididae	
Aphelencholdes subtenuis Deliebederidee	narcissus bulb and leaf nematode
Tylenchorhynchus duhius	
Tylenchidae	
Ditylenchus destructor	potato rot nematode
Ditylenchus dipsaci	stem and bulb nematode
Fungus	
Ascomycota	
Hypocreales	
Hypocreaceae Cibboralla avanacoa (anomorph Eucarium avanacoum)	fusarium stam cankar
l entiales	
Sclerotiniaceae	
Botryotinia fuckeliana (anamorph Botrytis cinerea)	grey mould
Sclerotinia gladioli	dry rot
Sclerotinia minor	sclerotinia rot
Sclerotinia sclerotiorum	cottony rot
Phyllachoraceae	
Clomerella cinquilata (anamornh Collototrichum	anthracnosa
aloeosporioides)	

Basidiomycota: Basidiomycetes Ceratobasidiales	
Cel al Obdesi ul due de Thanatanharus su sumaris (anomorph Dhizastania salan)	rhizactonia rat
Storoalos	
Atholiacoao	
Athalia ralfsii (anamornh Sclaratium ralfsii)	Polf's disease
Annelia reirsii (anamorphi sciereitani reirsii) Oomvoota	
Pythiales	
Pythiaceae	
Phytophthora cactorum	phytophthora crown and root rot
Phytophthora cryptogea	pink rot
Phytophthora erythroseptica	pink rot
Pythium ultimum	leak
mitosporic fungi (Hyphomycetes)	
Hyphomycetales	
Moniliaceae	
Botrytis tulipae	blast
Bacterium	
Enterobacteriaceae	
<i>Erwinia carotovora</i> subsp. <i>carotovora</i>	bacterial soft rot
Pseudomonadaceae	
Burkholderia andropogonis	leaf spot
Burkholderia gladioli pv. alliicola	bacterial soft rot
Virus	
Arahis mosaic virus	_
Rean vellow mosaic virus	-
Cucumber mosaic virus	-
Lilv symptomless virus	-
Strawberry latent ringspot virus	-
Tobacco mosaic virus	-
Tobacco necrosis virus	-
Tobacco rattle virus [Paeonia and Narcissus infecting strains]	-
Tobacco ringspot virus	-
Tomato ringspot virus [Grape yellow vein strain]	-
Tulip breaking virus (syn. Tulip mosaic virus)	-
Turnip mosaic virus	-

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

GENERAL CONDITIONS:

Countries: All

Quarantine Pests: Elm mosaic virus, Elm phloem necrosis; Xylella fastidiosa

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

For Whole Plants and Tissue Cultures:PEQ:Level 3Minimum Period:3 months

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

These conditions do not apply to Vaccinium macrocarpon.

1. Type of *Vaccinium* [excluding *Vaccinium macrocarpon*] nursery stock approved for entry into New Zealand

Cuttings (dormant); Plants in tissue culture

2. Pests of Vaccinium

Refer to the pest list.

3. Entry conditions for:

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

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

(i) *Documentation*

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

(ii) *Phytosanitary requirements*

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

The Vaccinium cuttings / plants in tissue culture [choose ONE option] have been:

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

AND

treated for regulated insects and mites as described in in section 2.2.1.6 of the basic conditions within 7 days prior to shipment [cuttings only].

AND

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

AND

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

(iii) Additional declarations to the phytosanitary certificate

If satisfied that the pre-shipment activities have been undertaken, the exporting country NPPO must confirm this by recording the treatments applied in the "Disinfestation and/or Disinfection Treatment" section and by providing the following additional declarations to the phytosanitary certificate:

"The *Vaccinium* cuttings / plants in tissue culture [choose ONE option] have been:

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

AND

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

(iv) Special tissue culture media requirements

The tissue culture media must not contain charcoal.

(v) *Post-entry quarantine*

PEQ: All *Vaccinium* nursery stock must be imported under permit into post-entry quarantine in a level 2 quarantine facility accredited to MAF standard PBC-NZ-TRA-PQCON *Specification for the registration of a plant quarantine or containment facility, and operator.* **Quarantine Period and Inspection, Testing and Treatment Requirements**: The nursery stock will be grown for a minimum period of 6 months in post-entry quarantine and will be inspected, treated and/or audit-tested for regulated pests, at the expense of the importer. Six months is an indicative minimum quarantine period and this period may be extended if material is slow growing, pests are detected, or treatments/testing are required.

3.2 Vaccinium cuttings and tissue culture from non-accredited facilities in any country

(i) *Documentation*

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

(ii) *Phytosanitary requirements*

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

The Vaccinium cuttings / plants in tissue culture [choose ONE option] have been:

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

AND

- treated for regulated insects and mites as described in in section 2.2.1.6 of the basic conditions within 7 days prior to shipment [cuttings only].

AND

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

(iii) Additional declarations to the phytosanitary certificate

If satisfied that the preshipment activities have been undertaken, the exporting country NPPO must confirm this by recording the treatments applied in the "Disinfestation and/or Disinfection Treatment" section. No additional declarations are required.

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

PEQ: All *Vaccinium* nursery stock must be imported under permit into post-entry quarantine in a level 3 quarantine facility accredited to MAF standard PBC-NZ-TRA-PQCON *Specification for the registration of a plant quarantine or containment facility, and operator.* **Quarantine Period and Inspection, Testing and Treatment Requirements**: The nursery stock will be grown for a minimum period of either 9 (tissue culture) or 16 months (cuttings) in post-entry quarantine. During this time it will be inspected, treated and/or tested for regulated pests as specified in the "Inspection, Testing and Treatment Requirements for *Vaccinium*", at the expense of the importer. These times are indicative minimum quarantine periods and may be extended if material is slow growing, pests are detected, or treatments/testing are required.

Pest List for Vaccinium

REGULATED PESTS (actionable)

Insect	
Insecta	
Coleoptera	
Cerambycidae	
Oberea myops	azalea stem borer
Chrysomelidae	
Altica sylvia	blueberry flea beetle
Rhabdopterus picipes	cranberry rootworm
Curculionidae	
Anthonomus musculus	cranberry weevil
Conotrachelus nenuphar	plum curculio
Pseudanthonomus validus	currant fruit weevil
Scarabaeidae	
Popillia japonica	Japanese beetle
Diptera	·
Cecidomyiidae	
Contarinia vaccinii	blueberry tip midge
Tephritidae	
Rhagoletis mendax	blueberry maggot
Hemiptera	5 00
Coreidae	
Veneza phyllopus	leaf-footed bug
Homoptera	0
Aphididae	
Illinoia azaleae	azalea aphid
Illinoia borealis	aphid
Illinoia pepperi	blueberry aphid
Cicadellidae	5 1
Euscelis striatulus	Blunt-nosed leafhopper
Scaphytopius magdalensis	sharpnosed leafhopper
Hymenoptera	
Tenthredinidae	
Caliroa annulipes	sawfly
Neopareophora litura	gooseberry sawfly
Pristiphora idiota	willow redgall sawfly
Pristiphora mollis	-
Lepidoptera	
Arctiidae	
Hyphantria cunea	fall webworm
Geometridae	
Itame ribearia	currant spanworm
Noctuidae	
Acronicta tritona	acronicta caterpillar
Actehia fennica	black army cutworm
Notodontidae	black army catworm
Datana maior	azalea caternillar
Pyralidae	
Acrohasis vaccinii	cranberry fruitworm
Sphingidae	eranberry fractionin
Paonias astylus	huckleberry sphinx
Tortricidae	ndekteben y sprink
Archins rosanus	rose leafroller
Aravrotaenia velutinana	red-banded leafroller
Arona trialhamaculella	
Cheimonhila salicella	Furnnean carnation tortriv
Choristoneura hehenstreitella	tortricid
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Choristoneura rosaceana Cydia packardi Dichomeris vacciniella Hendecaneura shawiana Spilopota ocellana	oblique-banded leafroller cherry fruitworm leaftier blueberry tip borer evespotted 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	-
l aeniothrips vaccinophilus	thrips
Mite	
Arachnida	
Acarina	
Eriophyidae	
Acalitus vaccinii	blueberry bud mite
Fundus	
Ascomycota	
Diaporthales	
Valsaceae	
Diaporthe vaccinii (anamorph Phomopsis vaccinii)	twig blight
Dothideales	0 0
Botryosphaeriaceae	
Botryosphaeria corticis	cane blight
Botryosphaeria vaccinii (anamorph Phyllosticta elongata)	
Polystomellaceae	
Dothidella vacciniicola	twig canker
Erysiphales	
Erysiphaceae Microsphaera popicillata	nowdony mildow
Microsphaera vaccinii	powdery mildow
Hypocreales	powdery mildew
Hypocreaceae	
Calonectria ilicicola (anamorph Cylindrocladium crotalariae)	root and stem rot
Leotiales	
Leotiaceae	
Godronia cassandrae (anamorph Fusicoccum putrefaciens)	foliage spot
Godronia cassandrae f. sp. vaccinii	cane canker
Sclerotiniaceae	
Monilinia baccarum	mummy berry
<i>Monilinia tructigena</i> (anamorph <i>Monilia tructigena</i>) Monilinia ladi	European brown rot
Monilinia magalospora	twig blight
Monilinia megalospora Monilinia ovycocci	-
Monilinia urgula	- brown rot
Monilinia uridia Monilinia vaccinii-corvmbosi	brown rot
Phyllachorales	
Phyllachoraceae	
Ophiodothella vaccinii	fly speck leaf spot
Meliolales	
Meliolaceae	
Asteridiella exilis	black mildew
Rhytismatales	
Knytismataceae	
Lophodermium mypophyllum	- loof coot
Lupriouermium maculare Rhytisma vaccinii	ical SPUL tar loaf spot
	tai ioai spot

Basidiomycota: Basidiomycetes Agaricales Tricholomataceae	
Armillaria mellea (anamorph Rhizomorpha subcorticalis)	armillaria root rot
Armillaria ostoyae Pacidiomycota: Toliomycotas	armillaria root rot
Uredinales	
Pucciniastraceae	
Pucciniastrum yoccinii Ducciniastrum yoccinii	rust
Pucciniasii uni vaccinii Nomventa	TUSI
Pythiales	
Pythiaceae	
Phytophthora ramorum	sudden oak death disease
mitosporic fungi (Coelomycetes)	
Sphaeropsidales	
Sphaerioidaceae	
Dothichiza caroliniana	double leaf spot
Coniothyrium vaccinicola	brand canker
Phoma vaccinii	stem blight
Piggotia vaccinii	leaf spot
Septoria albopunctata	septoria spot
Septoria vaccinii	septoria spot
unknown Coelomycetes	
Unknown Coelomycetes	loof anat and atom applyor
Giueuspurium conspicium	fly spock
mitosporis fungi (Huphomysotos)	ny speck
Hynhomycetales	
Dematiaceae	
	leaf mould
Moniliaceae	
Gloeocercospora inconspicua	leaf spot
Ramularia vaccinii	leaf spot
unknown Hyphomycetes	1
unknown Hyphomycetes	
Aureobasidium vaccinii	twig and leaf blight
Bacterium	
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	-
<i>I obacco streak virus</i> [strains not in New Zealand]	-
I omato ringspot virus [strains not in New Zealand]	-
Phytopiasma	
Blueberry stunt phytoplasma	-
Cranberry raise biossom phytoplasma	-
vaccinium witches' broom phytopiasma	-
Blueberry mosaic disease	-
NON-REGULATED PESTS (non-act	ionable)

Insect Insecta

Coleoptera	
Chrysomelidae	
Eucolaspis brunnea	bronze beetle
Curculionidae	
Asynonychus cervinus	Fuller's rose weevil
Irenimus compressus	compressed weevil
Listroderes difficilis	vegetable weevil
Otiorhynchus sulcatus	black vine weevil
Phlyctinus callosus	banded fruit weevil
Scarabaeldae	and a second
Costelytra zealandica	grass grub
Dintoro	scarad beelle
Anthomyiidaa	
Delia platura	seedcorn maggot
Homontera	secucini maggor
Aphididae	
Aulacorthum circumflexum	mottled arum aphid
Aulacorthum solani	foxglove aphid
Mvzus ornatus	ornate aphid
Cercopidae	
Philaenus spumarius	meadow spittlebug
Coccidae	1 0
Coccus hesperidum	brown soft scale
Coccus longulus	long brown scale
Diaspididae	
Aspidiotus nerii	oleander scale
Hemiberlesia rapax	greedy scale
Lepidoptera	
Geometridae	C
Declana floccosa	forest semilooper
Psychidae	h
Lioinula omnivora	bag moln
Ctenencoustic obliguana	brownbooded loofroller
Cienopseusiis obiiqualia Eninhvas nastvittana	light brown apple moth
Thysapontera	light brown apple moun
Thrinidae	
Frankliniella occidentalis	western flower thrips
	nooton nonor ampo
Mite	
Arachnida	
Acarina	
Eriophyidae	
Tarsonemus pallidus	banana mite
Fungus	
Ascomycota	
Dothideales	
Botryosphaeriaceae	
Botryosphaeria dotnidea (anamorph Fusicoccum aesculi)	Canker
Botryosphaeria obiusa (anamorph Sphaeropsis maiorum)	blight
Leptosphaeria caniathurium (anamorph, Caniathurium fuckali)	common conkor
Hypocreales	CUMINUM CALINEI
Нуростеасезе	
Calonectria kyotensis (anamorph Cylindrocladium scoparium)	root and stem rot
Leotiales	
Leotiaceae	
Discohainesia oenotherae (anamorph Hainesia lythri)	leaf spot
Sclerotiniaceae	
Botryotinia fuckeliana (anamorph Botrytis cinerea)	grey mould

Sclerotinia minor	sclerotinia rot
Sclerotinia sclerotiorum	cottony rot
Phyllachorales	j i
Phyllachoraceae	
Glomerella cingulata (anamorph Colletotrichum	anthracnose
aloeosporioides)	
Basidiomycota: Ustomycetes	
Exobasidiales	
Exobasidiaceae	
Exobasidium vaccinii	red leaf gall
Oomycota	3
Pythiales	
Pythiaceae	
Phytophthora cinnamomi	phytophthora crown and root rot
Pythium irregulare	pythium root and stem rot
Zygomycota: Zygomycetes	
Mucorales	
Mucoraceae	
Rhizopus stolonifer	rhizopus soft rot
mitosporic fungi (Coelomycetes)	·
Sphaeropsidales	
Sphaerioidaceae	
Phoma huancayensis	phoma rot
unknown Coelomycetes	·
unknown Coelomycetes	
Colletotrichum acutatum	anthracnose
Pestalotia vaccinii	leaf spot
Seimatosporium vaccinii	leaf spot
mitosporic fungi (Hyphomycetes)	
Hyphomycetales	
Dematiaceae	
Alternaria alternata	black stalk rot
Alternaria tenuissima	alternaria mould
Curvularia trifolii	leaf spot
Thielaviopsis basicola	black root rot
Bacterium	
Decidinaria	
Rurkholderia andronogonis	leaf snot
Pseudomonas viridiflava	leaf blight
Rhizohiaceae	
Agrobacterium tumefaciens	crown gall
Virue	
Tobacco TINUS POL VITUS	-
Tomata singanat virus [Black raspberry latent strain]	-
<i>i omato ringspot virus</i> [Grape yellow vein strain]	-
Inspection, Testing and Treatment Requirements for Vaccinium

ORGANISM TYPES	MAF-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.
Virus	
Blueberry leaf mottle virus	Herbaceous indicators Cq and Nc AND ELISA or PCR AND TEM.
Bluberry red ringspot virus (syn. Cranberry ringspot virus)	ELISA or PCR AND TEM.
Blueberry scorch virus	Herbaceous indicator Cq AND ELISA or PCR AND TEM.
Blueberry shock virus	Herbaceous indicators Nc and Nt AND ELISA or PCR AND TEM.
Blueberry shoestring virus	ELISA or PCR AND TEM.
Peach rosette mosaic virus	Herbaceous indicators Cq and Nt AND ELISA or PCR AND TEM.
<i>Tobacco streak virus</i> [strains not in New Zealand]	Herbaceous indicators Cq and Nt AND ELISA or PCR AND TEM.
<i>Tomato ringspot virus</i> [strains not in New Zealand]	Herbaceous indicators Cq and Nt AND ELISA or PCR AND TEM.
Phytoplasmas	
Blueberry stunt phytoplasma	PCR using the universal phytoplasma fU5/rU3 primers (Lorenz <i>et al.</i> 1995) AND R16F2n/R16R2 primers (Gundersen <i>et al.</i> 1996).
Cranberry false blossom	PCR using the universal phytoplasma fU5/rU3 primers (Lorenz et
phytoplasma	al. 1995) AND R16F2n/R16R2 primers (Gundersen et al. 1996).
Vaccinium witches' broom	PCR using the universal phytoplasma fU5/rU3 primers (Lorenz et
phytoplasma	al. 1995) AND R16F2n/R16R2 primers (Gundersen et al. 1996).
Disease of unknown aetiology	
Blueberry mosaic disease	Growing season inspection in PEQ for disease symptom expression.

Notes:

- 1. The unit for testing is an individual plantlet or cutting. Each single plantlet and cutting must be labelled individually and tested separately.
- 2. Transmission electron microscopy (TEM); in the spring, leaves from grafted cuttings or tissue culture must be observed under the electron microscope for virus particles.
- 3. Herbaceous indicator hosts: Chenopodium quinoa (Cq), Nicotiana clevelandii (Nc) and Nicotiana tabacum (Nt). At least two plants of each herbaceous indicator species must be used in each test. Tests are to be carried out using the new season's growth in the spring. Plants shall be sampled from at least two positions on every stem including a young, fully expanded leaf at the top of each stem and an older leaf from a midway position. Herbaceous indicator plants must be grown under appropriate temperatures and must be shaded for 24 hrs prior to inoculation. Maintain post-inoculated indicator species under appropriate glasshouse conditions for at least 4 weeks. Inspect inoculated indicator plants at least twice per week for symptoms of virus infection.
- 4. Enzyme linked immunosorbent assay (ELISA) and PCR tests for viruses. Tests are to be carried out using the new season's growth from grafted cuttings or tissue culture in the

spring. Plants shall be sampled from at least two positions including a young, fully expanded leaf at the top of the stem and an older leaf from a midway position.

- 5. All PCR and ELISA tests must be validated using positive controls prior to use in quarantine testing. Positive and negative controls (including a blank water control for PCR) must be used in all tests. Ideally positive internal controls and a negative plant control should also be used in PCR tests.
- 6. Inspect *Vaccinium* plants for signs of pest and disease at least twice per week during periods of active growth and once per week during dormancy.
- 7. With prior notification, MAF will accept other internationally recognised testing methods.

References

- Gundersen, D.E., Lee, I.M. 1996. Ultrasensitive detection of phytoplasmas by nested-PCR assays using two universal primer pairs. *Phytopathologia Mediterranea* 35: 144-151.
- Lorenz, K.H., Scheider, B., Ahrens, U., Seemuller, E. 1995. Detection of the Apple proliferation and Pear decline phytoplasmas by PCR Amplification of ribosomal and nonribosomal DNA. *Phytopathology* 85: 771-776.

Note: The entry conditions in 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 MAF-accredited facilities in any country

An offshore accredited facility is a facility that has been accredited to the MAF Standard PIT.OS.TRA.ACPQF to undertake phytosanitary activities. The operator of the accredited facility must also have an agreement with MAF on the phytosanitary measures to be undertaken for *Vaccinium macrocarpon*. Refer to the "*Vaccinium macrocarpon* Inspection, Testing and Treatment Requirements".

(i) *Documentation*

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

Import permit: an import permit is required.

(ii) *Phytosanitary requirements*

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

The *Vaccinium macrocarpon* cuttings / plants in tissue culture [choose ONE option] have been:

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

AND

- treated for regulated insects and mites as described in section 2.2.1.6 of the basic conditions within 7 days prior to shipment [cuttings only].

AND

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

AND

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

(iii) Additional declarations to the phytosanitary certificate

If satisfied that the pre-shipment activities have been undertaken, the exporting country NPPO must confirm this by recording the treatments applied in the "Disinfestation and/or Disinfection Treatment" section and by providing the following additional declarations to the phytosanitary certificate:

"The Vaccinium macrocarpon cuttings / plants in tissue culture [choose ONE option] have been

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

AND

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

(iv) Special tissue culture media requirements

The tissue culture media must not contain charcoal.

(v) *Post-entry quarantine*

PEQ: All *Vaccinium macrocarpon* nursery stock must be imported under permit into postentry quarantine in a level 2 quarantine facility accredited to MAF standard PBC-NZ-TRA-PQCON *Specification for the registration of a plant quarantine or containment facility, and operator.*

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

3.2 *Vaccinium macrocarpon* cuttings and tissue culture from non-accredited facilities in any country

(i) *Documentation*

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

Import permit: an import permit is required.

(ii) *Phytosanitary requirements*

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

The *Vaccinium macrocarpon* cuttings / plants in tissue culture [choose ONE option] have been:

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

AND

- treated for regulated insects and mites as described in section 2.2.1.6 of the basic conditions within 7 days prior to shipment [cuttings only].

AND

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

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 3 quarantine facility accredited to MAF standard PBC-NZ-TRA-PQCON *Specification for the registration of a plant quarantine or containment facility, and operator.*

Quarantine Period and Inspection, Testing and Treatment Requirements: The nursery stock will be grown for a minimum period of either 9 (tissue culture) or 16 months (cuttings) in post-entry quarantine. During this time it will be inspected, treated and/or tested for regulated pests as specified in the "Inspection, Testing and Treatment Requirements for *Vaccinium macrocarpon*", at the expense of the importer. These times are indicative minimum quarantine periods and may be extended if material is slow growing, pests are detected, or treatments/testing are required.

Pest List for Vaccinium macrocarpon

REGULATED PESTS (actionable)

Insect	
Insecta	
Coleoptera	
Chrysomelidae	
Řhabdopterus picipes	cranberry rootworm
Curculionidae	5
Anthonomus musculus	cranberry weevil
Pseudanthonomus validus	currant fruit weevil
Scarabaeidae	
Popillia iaponica	Japanese beetle
Diptera	
Tephritidae	
Rhagoletis pomonella	apple maggot fly
Homoptera	
Aphididae	
Aphis vaccinii	blueberry aphid
Illinoia azaleae	azalea aphid
Illinoia horealis	anhid
Cicadellidae	aprila
Fuscelis striatulus	Blunt-nosed leafhonner
Hymonontera	Bidin nosed learnopper
Tonthrodinidao	
Pristinhora idiota	willow redgall sawfly
Lonidontora	willow reugali sawity
Arctiidao	
Arctiluae Uvrhantria cunoa	fallwohworm
Competiidao	
	current spenworm
Nectuidee	currant spanworm
Nociuldae	opropieto esternillor
ACIEDIA IENNICA	black army culworm
Pyralidae	ana aka any shu itu sama
ACTODASIS VACCINII	cranberry iruitworm
Iortricidae	
Archips rosanus	rose leatroller
Argyrotaenia velutinana	red-banded leatroller
Aroga trialbamaculella	leaftier
Choristoneura hebenstreitella	tortricid
Choristoneura rosaceana	oblique-banded leafroller
Dichomeris vacciniella	leaftier
Thysanoptera	
Thripidae	
Frankliniella vaccinii	blueberry thrips
Mito	
Aroohnida	
Alaciniua	
Acarina	
Eriophyldae	h h a chairte a chairte a chairte
Acamus vaccinn	blueberry bud mile
Fungus	
Ascomycota	
Diaporthales	
Valsareae	
Dianorthe vaccinii (anamornh Phomonsis vaccini)	twia blight

Dothideales Botryosphaeriaceae	
Botryosphaenaeeae Botryosphaeria vaccinii (anamorph Phyllosticta elongata)	
Frysinhales	
Frysiphaceae	
Microsphaera penicillata	powdery mildew
Microsphaera vaccinii	powdery mildew
Leotiales	powdery milden
Godronia cassandrae (anamorph Eusicoccum nutrefaciens)	foliage spot
Godronia cassandraef sn. vaccinii	cane canker
Sclerotiniaceae	
Monilinia fructigena (anamornh Monilia fructigena)	European brown rot
Monilinia nucligena (anamorph monilia nucligena) Monilinia ovycocci	
Phytismatales	
Phytismataceae	
Lonbodermium hyponhyllum	_
Lophodormium macularo	- loaf spot
Lophodermium ovucessi	leal spot
Lupiloueiniiuni uxycocci Pasidiamusata: Pasidiamusatas	-
Dasiuluiiyuula. Dasiuluiiyuules	
Aydi i Cales	
Armillaria mallaa (anamarnh, Dhizamarnha subcartiaalia)	ormillaria root rot
Anninana menera (anamorphi Rhizomorphia subconicans)	
Basiulomycola: Tellomyceles	
Pucciniastrum goeppenianum	TUSL
Pucciniasirum vaccinii	rust
Cnytridiales	
Synchytriaceae	
Synchytrium vaccinii	red leaf gall
mitosporic fungi (Coelomycetes)	
Sphaeropsidales	
Sphaerioidaceae	
Coniothyrium vaccinicola	brand canker
Phoma vaccinii	stem blight
Septoria vaccinii	septoria spot
Strasseria oxycocci	fruit rot
unknown Coelomycetes	
unknown Coelomycetes	
Gloeosporium minus	leaf spot and stem canker
Leptothyrium conspicuum	fly speck
mitosporic fungi (Hyphomycetes)	
Hyphomycetales	
Dematiaceae	
Curvularia inaequalis	leaf mould
Destadum	
Bacterium	
Pseudomonadaceae	
Pseudomonas syringae pv. morsprunorum	bacterial canker
Rhizobiaceae	
Agrobacterium rubi	cane gall
Maria	
virus	
Blueberry scorch virus	
Bluberry red ringspot virus (syn. Cranberry ringspot virus)	-
I obacco streak virus [strains not in New Zealand]	-
Dhutanlaama	
Phytopiasma	
Cranberry false blossom phytoplasma	-

NON-REGULATED PESTS (non-actionable)

Insect	
Colooptora	
Chrysomolidao	
Fucolasnis brunnea	hronzo hootlo
Curculionidae	bronze beene
	Fuller's rose weevil
Irenimus compressus	compressed weevil
l istroderes difficilis	vegetable weevil
Otiorhynchus sulcatus	black vine weevil
Phlyctinus callosus	banded fruit weevil
Scarabaeidae	
Costelvtra zealandica	grass grub
Odontria xanthosticta	scarab beetle
Diptera	
Anthomyiidae	
Delia platura	seedcorn maggot
Homoptera	33
Aphididae	
Aulacorthum circumflexum	mottled arum aphid
Aulacorthum solani	foxglove aphid
Myzus ornatus	ornate aphid
Cercopidae	·
Philaenus spumarius	meadow spittlebug
Coccidae	
Coccus hesperidum	brown soft scale
Coccus longulus	long brown scale
Diaspididae	
Aspidiotus nerii	oleander scale
Hemiberlesia rapax	greedy scale
Lepidoptera	
Geometridae	
Declana floccosa	forest semilooper
Psychidae	
Liothula omnivora	bag moth
l'ortricidae	
Ctenopseustis opiiquana	brownneaded leatroller
Epipnyas posiviliana	light brown apple moth
Funduc	
Fullyus	
Ascomycola	
Dolnideales	
Dull yuspildelideed Potriocobaoria abtuca (anamorph, Sphaoropeic malorum)	blight
Lontosphaeriacoao	blight
Leptosphaenaceae	common canker
Leptosphaena comonynam (anamorph comonynam hacken)	common canker
Leonacea	
Discobainesia genotherae (anamorph Hainesia lythri)	leaf snot
Basidiomycota: Ustomycetes	
Exobasidiales	
Exobasidiaceae	
Exobasidium vaccinii	red leaf gall
Oomycota	5
Pythiales	
Pythiaceae	
Phytophthora cinnamomi	phytophthora crown and root rot
Zygomycota: Zygomycetes	

Mucorales	
Mucoraceae	
Rhizopus stolonifer	rhizopus soft rot
mitosporic fungi (Coelomycetes)	
unknown Coelomycetes	
unknown Coelomycetes	
Pestalotia vaccinii	leaf spot
mitosporic fungi (Hyphomycetes)	·
Hyphomycetales	
Dematiaceae	
Alternaria alternata	black stalk rot
Bacterium	
Pseudomonadaceae	
Pseudomonas syringae (pathovars in New Zealand)	bacterial blast
Pseudomonas viridiflava	leaf blight
Rhizobiaceae	5
Agrobacterium tumefaciens	crown gall
Virue	

-

Virus

Tobacco streak virus [Black raspberry latent strain]

Inspection, Testing and Treatment Requirements for Vaccinium macrocarpon

ORGANISM TYPES	MAF-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.
Pseudomonas syringae	Growing season inspection in PEQ for disease symptom expression
pv. morsprunorum	AND PCR (Bereswill et al., 1994).
Virus	
Blueberry scorch virus	Herbaceous indicator Cq AND ELISA or PCR AND TEM.
Blueberry red ringspot virus	ELISA or PCR AND TEM.
(syn. Cranberry ringspot virus)	
Tobacco streak virus	Herbaceous indicators Cq and Nt AND ELISA or PCR AND TEM.
[strains not in New Zealand]	
Phytoplasmas	
Cranberry false blossom	PCR using the universal phytoplasma fU5/rU3 primers (Lorenz et
phytoplasma	al. 1995) AND R16F2n/R16R2 primers (Gundersen et al. 1996).

Notes:

- 1. The unit for testing is an individual plantlet or cutting. Each single plantlet and cutting must be labelled individually and tested separately.
- 2. Transmission electron microscopy (TEM); in the spring, leaves from grafted cuttings or tissue culture must be observed under the electron microscope for virus particles.
- 3. Herbaceous indicator hosts: *Chenopodium quinoa* (Cq) and *Nicotiana tabacum* (Nt). At least two plants of each herbaceous indicator species must be used in each test. Tests are to be carried out using the new season's growth in the spring. Plants shall be sampled from at least two positions on every stem including a young, fully expanded leaf at the top of each stem and an older leaf from a midway position. Herbaceous indicator plants must be grown under appropriate temperatures and must be shaded for 24 hrs prior to inoculation. Maintain post-inoculated indicator species under appropriate glasshouse conditions for at least 4 weeks. Inspect inoculated indicator plants at least twice per week for symptoms of virus infection.
- 4. Enzyme linked immunosorbent assay (ELISA) and PCR tests for viruses. Tests are to be carried out using the new season's growth from grafted cuttings or tissue culture in the spring. Plants shall be sampled from at least two positions including a young, fully expanded leaf at the top of the stem and an older leaf from a midway position.
- 5. All PCR and ELISA tests must be validated using positive controls prior to use in quarantine testing. Positive and negative controls (including a blank water control for PCR) must be used in all tests. Ideally positive internal controls and a negative plant control should also be used in PCR tests.
- 6. Inspect *Vaccinium macrocarpon* plants for signs of pest and disease at least twice per week during periods of active growth and once per week during dormancy.
- 7. With prior notification, MAF will accept other internationally recognised testing methods.

References

- Bereswill S., Bugert P., Volksch B., Ullrich M., Bender C.L., Geider K. 1994. Identification and relatedness of coronatine-producing *Pseudomonas syringae* pathovars by PCR analysis and sequence determination of the amplification products. *Applied and Environmental Microbiology* 60: 2924-2930.
- Gundersen, D.E., Lee, I.M. 1996. Ultrasensitive detection of phytoplasmas by nested-PCR assays using two universal primer pairs. *Phytopathologia Mediterranea* 35: 144-151.
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Note: The entry conditions in this schedule only apply to species in the Plants Biosecurity Index listed under Import Specifications for Nursery Stock as "see 155.02.06 under *Verbena*", and are additional to those specified in sections 1, 2 and 3 of the import health standard.

GENERAL CONDITIONS:

Countries: All

Quarantine Pests: Tetranychus kanzawai, Uredinales

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

A. For Whole Plants PEQ: Level 2 Minimum Period: 3 months Additional Declarations:

1. "Rust diseases are not known to occur on _ (the imported genus) _ in _ (the country in which the plants were grown) _".

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

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

OPTION 1: No import permit is required. PEO: None

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

OPTION 2: PEQ: Level 1 Minimum Period: 3 months C. For Dormant Bulbs from Countries <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.

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

GENERAL CONDITIONS:

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

Quarantine Pests: *Phytophthora ramorum*; Uredinales

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

A. For Cuttings and Whole Plants from Australia and Canada (these commodities may not be imported from other countries):
PEQ: Level 2
Minimum Period: 3 months
Additional Declaration(s):
1. "Rust diseases of genus *Coleosporium* and *Cronatium* are not known to occur on _____(the host species being imported)_____ in ____(the country in which the plants were grown) _____".

2. "The plants have been sourced from a "Pest free area", free from Phytophthora ramorum".

B. For Plants in Tissue Culture:

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

Note: The entry conditions in 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 MAF-accredited facilities, or into Level 3 post entry quarantine from non-accredited facilities.

2. Pests of Vitis

Refer to the pest list.

3. Entry conditions for:

3.1 *Vitis* cuttings and tissue culture from offshore MAF-accredited facilities in any country

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

(i) *Documentation*

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

(ii) *Phytosanitary requirements*

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

The *Vitis* cuttings / plants in tissue culture [choose ONE option] have been:

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

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 MAF and the [name of the MAF-accredited facility].

AND

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

(iii) Additional declarations to the phytosanitary certificate

If satisfied that the pre-shipment activities have been undertaken, the exporting country NPPO must confirm this by recording the treatments applied in the "Disinfestation and/or Disinfection Treatment" section and by providing the following additional declarations to the phytosanitary certificate:

"The Vitis cuttings / plants in tissue culture [choose ONE option] have been:

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

AND

- sourced from mother plants that have been kept in insect-proof plant houses or sourced from open ground mother plants [cuttings only, choose ONE option].

AND

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

(iv) Post-entry quarantine

PEQ: All *Vitis* nursery stock must be imported under permit into post-entry quarantine in a level 2 quarantine facility accredited to MAF standard PBC-NZ-TRA-PQCON Specification for the registration of a plant quarantine or containment facility, and operator.

Quarantine Period and Inspection, Testing and Treatment Requirements: Upon arrival cuttings will be dipped in 1% sodium hypochlorite for 2 minutes [cuttings only]. The nursery stock will be grown for a minimum period of either 6 months (plants in tissue culture and cuttings sourced from mother plants that have been kept in insect-proof plant houses) or 16 months (cuttings sourced directly from open ground mother plants) in post-entry quarantine and will be inspected, treated and/or audit-tested for regulated pests, at the expense of the importer. These periods are indicative minimum quarantine periods and may be extended if material is slow growing, pests are detected, or treatments/testing are required.

3.2 Vitis cuttings and tissue culture from non-accredited facilities in any country

(i) *Documentation*

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

(ii) *Phytosanitary requirements*

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

The *Vitis* cuttings / plants in tissue culture [choose ONE option] have been:

- inspected in accordance with appropriate official procedures and found to be free of any visually detectable regulated pests.
- AND
- treated for regulated insects and mites as described in section 2.2.1.6 of the basic conditions within 7 days prior to shipment [cuttings only].

AND

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

(iii) Additional declarations to the phytosanitary certificate

If satisfied that the pre-shipment activities have been undertaken, the exporting country NPPO must confirm this by recording the treatments applied in the "Disinfestation and/or Disinfection Treatment" section. No additional declarations are required.

(iv) *Post-entry quarantine*

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

Quarantine Period and Inspection, Testing and Treatment Requirements: Upon arrival cuttings will be dipped in 1% sodium hypochlorite for 2 minutes [cuttings only]. The nursery stock will be grown for a minimum period of 16 months in post-entry quarantine and will be inspected, treated and/or audit-tested for regulated pests, at the expense of the importer. Sixteen months is an indicative minimum quarantine period and this period may be extended if material is slow growing, pests are detected, or treatments/testing are required.

Pest List for Vitis

REGULATED PESTS (actionable)

Insect Insecta Coleoptera **Bostrichidae** apple twig borer Amphicerus bicaudatus bostrichid beetle Amphicerus bimaculatus 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 lead cable borer Scobicia declivis Xvlopertha 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 Altica chalybaea grape flea beetle grapevine flea beetle Altica torquata Bromius obscurus western grape rootworm Fidia viticida grape root worm grape bud beetle Glyptoscelis squamulata Haltica spp. Monolepta australis red-shouldered leaf beetle Coccinellidae Coccinella transversoguttata [Animals Biosecurity] Midas pygmaeus [Animals Biosecurity] Nephus reunioni [Animals Biosecurity] Rhyzobius ruficollis [Animals Biosecurity] Stethorus spp. [Animals Biosecurity] Curculionidae Bustomus setulosus brown weevil Craponius inaequalis grape curculio Dischista cincna flower beetle Eremnus atratus black weevil western province grain worm Eremnus cerealis Eremnus setulosus grey weevil Naupactus xanthographus fruit tree weevil Orthorhinus cylindrirostris elephant weevil Orthorhinus klugi immigrant acacia weevil Otiorhynchus cribricollis cribrate weevil Perperus spp. apple root weevils Platyaspistes glaucus Platyaspistes venustus Rhigopsis effracta Tanyrhynchus carinatus bud nibbler

Elateridae	
Limonius canus	Pacific Coast wireworm
Meloidae	
Mylabris oculata	-
Scarabaeidae	
Athlia rustica	-
Colaipa ursina Lioplio collinuae	-
Hoplia Callipyge	-
Hupila publiculiis Macradaetulus subeninasus	- roso chafor
Naciouaciyus subspiriosus Dachnoda sinuata	scarah hootlo
Ponillia ianonica	Jananoso hootlo
Schizonycha sp	cockchafer
Scolvtidae	Cockendrer
Scolvtus iaponicus	Japanese bark beetle
Xyleborus dispar	ambrosia beetle
Xyleborus semiopacus	black twig borer
Staphylinidae	5
Oligota pygmaea [Animals Biosecurity]	-
Tenebrionidae	
<i>Blapstinus</i> 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	
Onus sp. [Animais Biosecunity]	-
Anthocoris sp	
Allillocolis sp. Mietis profana	- crusador bug
	crusauer buy
Nysius ranhanus	false chinch hun
Nysius vinitor	Rutheralen bug
Oxycarenus arctatus	coon hua
Miridae	ooon bug
Creontiades dilutus	areen mirid
Pentatomidae	9
Euschistus conspersus	stink bug
Oechalia schellenbergi [Animals Biosecurity]	Schellenberg's soldier bug
Pyrrhocoridae	5 5
Dindymus versicolor	harlequin bug
Homoptera	
Aleyrodidae	
Aleurocanthus woglumi	citrus blackfly
Tetraleurodes vittatus	-
Trialeurodes vittata	grape whitefly
Aphididae	
Aphis illinoisensis	grapevine aphid
Aphis medicaginis	-
Asterolecaniidae	
Asterolecanium pustulans	oleander pit scale
	nitopolo
ASIEROCOCCUS MUTATAR	pit scale
	laafhannar
AUIA IIII HAIIII UIIS Cornooconhala fulaida	red boaded characheeter
Carneocephala luigida	reu-neaueu snarpsnooler

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	-
<i>Goniozus platynota</i> [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 [Animais Biosecurity]	parasitic wasp
Metaphycus Havus [Animals Biosecurity]	-
Zerbonelus convinus [Animals Biosecurity]	-
Zamopaius corvinus (Animais Biosecunty)	-
Calpactypous florus [Animals Piosocurity]	
Colpocitypeus notus [Animais Diosecunty]	-
AnonIolenis staingroeveri [Animals Biosocurity]	hlack ant
Cromatogaster peringuevi[Animals Biosecurity]	cocktail ant
Formica cinerea [Animals Biosecurity]	ant
Pogonomyrmex californica [Animals Biosecurity]	California harvester ant
Solenonsis xyloni [Animals Biosecurity]	southern fire ant
Veromessor nergandei [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]	-
Isoptera	
Kalotermitidae	
Cryptotermes brevis	West Indian drywood termite
Kalotermes flavicollis	termite
Kalolermes minor	- tormito
Neolermes chilensis	termite
	Australian subterranean termite
Deticulitarmas hosporus	Australian subterrariean termite
Termonsidae	-
Porotermes quadricollis	
Lenidontera	
Anaristidae	
Agarista agricola	painted vine moth
Heraclia superba	grapevine zebra moth
Arctiidae	grupevine Zesia mour
Estigmene acrea	saltmarsh caterpillar
Hyphantria cunea	fall webworm
Laora variabilis	-
Spilosoma virginica	yellow woollybear
Turuptiana obligua	tiger moth
Cossidae	J

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 zygaenid butterfly Theresimima ampelophaga 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 Acheta fulvipennis cricket Microgryllus pallipes cricket Tettigoniidae Caedicia 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 Amblyseius victoriensis [Animals Biosecurity] Metaseiulus occidentalis [Animals Biosecurity] *Neoseiulus chilenensis* [Animals Biosecurity] predator mite Typhlodromus doreenae [Animals Biosecurity] Tenuipalpidae

Brevipalpus chilensis Brevipalpus lewisi Brevipalpus lilium	false spider mite bunch mite false spider mite
Brevipalpus obovatus Tenvipalpus granati	privet mite false spider mite
Tetranychidae	
Fototranychus carnini	totranychid mito
Lotetranychus carpini Lotetranychus prupi	hiekony soorah mita
	hickory scorch mile
Eotetranycnus smithi	tetranycnid 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
Oliaonychus vothersi	avocado red mite
Totranychus kanzawai	kanzawa mito
Totranychus medaniali	McDaniol spidor mito
Tetranychus nacificus	NicDaniel Spider mite
Teiranychus pacificus	Pacific spider mile
Mollusc	
Gastropoda	
Stylommatophora	
Helicidae	
Cernuella virgata	small banded snails
Cochlicella barbara	small pointed garden snail
Theba pisana	white Italian snail
Fungus Ascomycota Caliciales	
Doosloria nallida	grapo root rot
Diaporthalos	grape root rot
Valagenee	
Valsaceae	ubauauaia anglan
Diaportne rudis (anamorph Phomopsis rudis)	pnomopsis canker
Dothideales	
Mycosphaerellaceae	
Guignardia bidwellii (anamorph Phyllosticta ampelicida)	black rot
Guignardia bidwelliit. sp. euvitis	-
Guignardia bidwellii f. sp. muscadinii	-
Mycosphaerella angulata (anamorph Cercospora brachypus)	angular leaf spot
Schizothyriaceae	
<i>Schizothyrium pomi</i> (anamorph <i>Zygophiala jamaicensis</i>)	fly speck
Hypocreales	
Hypocreaceae	
Cylindrocarpon destructans var. crassum	root rot
Leotiales	
Dermateaceae	
Pseudonezicula tetraspora	angular leaf scorch
Pseudopezioula terraspera Pseudopezioula tracheinhila	rothrenner
Scierotiniaceae	
Crovecinia nuramidalis (anamornh Cristulariella moricela)	target spot
Divesinia pyraniualis (anamorph Chstulanella moncula) Divesinia pyraniualis (anamorph Chstulanella moncula)	larger spol
Rijusliddes	
RINIISMATACEAE	
Rnytisma vitis	tar spot
Saccharomycetales	
Saccharomycetaceae	
Pichia membranaefaciens	-

Unknown Ascomycota	
Hyponectriaceae	
Physalospora baccae	-
Xylariales	
Xylariaceae	
Anthostomella pullulans	Brulure
Basidiomycota: Basidiomycetes	
Agaricales	
Iricholomataceae	
Armillaria mellea (anamorph Rhizomorpha subcorticalis)	armillaria root rot
Arminaria sp.	armiliaria root rot
Armiliaria tabescens	armiliaria root rot
Ganodermatales	
Ganodermataceae	
Ganoderma lucidum (anamorph <i>Polyporus lucidus</i>)	wood rol
Ganoderma Isugae	-
Ponales	
Conolaceae Discloradore educto	white ret
Bjelkandera fumeee	WHILE FOL
Bjerkandera lumosa	
	wood doooy
Pieurolus Osirealus Storoalas	wood decay
Stereagen	
Stereumen	
Sieleumsp. Pasidiamusatas	-
Urodinalos	
Ulphpown Urodinalos	
Dhysonalla amnalansidis	arano rust
Mitosporic Fundi	grape rusi
Unknown Mitosporic Fungi	
Unknown Mitosporic Fungi	
Phacellium sn	_
Mitosporic Funai (Coelomycetes)	
Snhaeronsidales	
Sphaerioidaceae	
Ascochyta ampelina	leaf spot
Coniella dinlodiella	white rot
Coniella netrakii	white rot
Phomonsis Ionginaranhysata	phomonsis rot
Pyrenochaeta vitis	leaf spot
Septoria ampelina	septoria leaf spot
Unknown Coelomycetes	soptona loar spot
Unknown Coelomycetes	
Nattrassia toruloidea	leaf spot
Pestalotia menezesiana	fruit rot
Pestalotia pezizoides	fruit and leaf spot
Pestalotiopsis manuferae	grev leaf spot of mango
Pestalotiopsis uvicola	fruit rot
Mitosporic Funai (Hyphomycetes)	
Hyphomycetales	
Dematiaceae	
Alternaria vitis	leaf disease
Phaeoramularia dissiliens	cercospora leaf spot
Moniliaceae	
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	-
Paeciloniyces sμμ. Phaeoacremonium aleonhilum	-
Phaeoisarionsis sp	-
Stiamina vitis	leaf fall
5	
Bacterium	
Pseudomonadaceae	
Xanthomonas campestris pv. viticola	bacterial canker
Xylella fastidiosa	Pierce's disease
Xylophilus ampelinus	bacterial blight
Rnizoblaceae	capo gall
Agrobacterium rubi	cane gan
Virus	
Artichoke Italian latent virus	-
Broad bean wilt virus	-
Cherry leaf roll virus [strains not in New Zealand]	-
Grapevine Ajinashika disease virus	-
Grapevine Algerian latent virus	-
Grapevine angular mosaic virus	-
Grapevine asteroid mosaic-associated virus	-
Grapevine berry inner necrosis virus Crapovino Pulgarian latont virus	-
Grapevine bulgarian laterit vitus Grapevine chrome mosaic virus	-
Grapevine fanleaf virus [strains not in New Zealand]	-
Grapevine labile rod-shaped virus	-
Grapevine leafroll-associated virus [type 4]	-
Grapevine leafroll-associated virus [type 5]	-
Grapevine leafroll-associated virus [type 6]	-
Grapevine leafroll-associated virus [type 7]	-
Grapevine leafroll-associated virus [type 9]	-
Grapevine line pattern virus	-
Grapevine red giobe virus	-
Grapevine siurit virus Grapovino Tunisian ringspot virus	-
Grapevine runisian myspor virus	-
Grapevine virus C	-
Grapevine virus D	-
Peach rosette mosaic virus	-
Petunia asteroid mosaic virus	-
Raspberry ringspot virus	-
Sowbane mosaic virus	-
Strawberry latent ringspot virus [strains not in New Zealand]	-
Tomalo Diack ring virus	-
Viroid	
Australian grapevine viroid	-
Grapevine yellow speckle viroid 1	-
Grapevine vellow speckle viroid 2	-
Hop stunt viroid	-
Phytoplasma	
Australian grapevine yellows phytoplasma	-
Grapevine bois noir phytoplasma	-
Grapovino vollows	-
Palatine grapevine vellows	-
Tomato big bud phytoplasma	-

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Disease of unknown aetiology LN33 stem grooving

NON-REGULATED PESTS (non-actionable)

Insect	
Insecta	
Coleoptera	
Cerambycidae	
Oemona hirta	lemon tree borer
Chrysomelidae	
Eucolaspis brunnea	bronze beetle
Coccinellidae	
Cryptolaemus montrouzieri	mealybug destroyer
Curculionidae	, , , ,
Asynonychus cervinus	Fuller's rose weevil
Otiorhvnchus sulcatus	black vine weevil
Phlyctinus callosus	banded fruit weevil
Scarabaeidae	
Costelvtra zealandica	arass arub
Heteronychus arator	black beetle
Dermaptera	
Forficulidae	
Forficula auricularia	Furopean earwig
Diptera	Europouri ournig
Drosophilidae	
Drosonhila melanogaster	vinegar fly
Hemiptera	vinegar ny
Pentatomidae	
Nezara viridula	areen vegetable bug
Homontera	green vegetable bag
Anhididae	
Anhis anssynii	cotton anhid
Anhis sniraecola	snirea anhid
Muzus narsicaa	aroon noach anhid
Coccidae	green peden aprila
Coccus hesperidum	hrown soft scale
Coccus nersicae	aranevine scale
Locanium porsicao	grapevine scale
Darasaissotia niara	niara scalo
Faiasaisseua niyia Darthanalocanium corni	Furancan fruit scalo
Faillenuelanum cum	black scale
Diagnididaa	DIALK SLAIE
Aonidiolla aurantii	California rad scala
Autilutella autatilii Accidiatus parii	california reu scale
Aspiulolus Herli Llamiharlacia lataniaa	
Henilberlesia lalalilat	latal lla Scale
Hennibenesia Tapax	greeuy scale
Lepidosapries ultril	Oystersnell scale
Quadraspidiolus perniciosus	San Jose scale
Margarodidae	anthana an abian anala
ICEI YA PUICHASI Dhullovaridaa	collony cushion scale
	anana akullawana
	grape phylioxera
Pseudococcidae	- States and a state of the second
	citrus mealypug
Pseudococcus caiceolariae	citrophilus mealybug
Pseudococcus iongispinus	iongtalled mealybug
Pseudococcus viburni	obscure mealybug
Knizoecus faiciter	root mealybug
Ricaniidae	
Scolypopa australis	passionvine hopper

Hymenoptera Encyrtidae Tetracnemoidea brevicornis [Animals Biosecurity] Tetracnemoidea sydneyensis [Animals Biosecurity] Formicidae Linepithema humile [Animals Biosecurity] Vespidae Vespula germanica [Animals Biosecurity] Lepidoptera Agaristidae Phalaenoides glycinae Noctuidae Aarotis ipsilon Helicoverpa armigera Tortricidae Ctenopseustis obliquana Epiphyas postvittana Planotortrix excessana Neuroptera Chrysopidae Chrysoperla carnea [Animals Biosecurity] Thysanoptera Thripidae Frankliniella occidentalis Heliothrips haemorrhoidalis Limothrips cerealium Thrips imaginis Thrips obscuratus Thrips tabaci Mite Arachnida Acarina Eriophyidae Colomerus vitis [bud strain] Colomerus vitis [erineum strain] Phytoseiidae Phytoseiulus persimilis [Animals Biosecurity] Typhlodromus pyri [Animals Biosecurity] Tarsonemidae Polyphagotarsonemus latus Tenuipalpidae Brevipalpus californicus Brevipalpus phoenicis Tetranychidae Calepitrimerus vitis Eotetranychus sexmaculatus Panonychus citri Panonychus ulmi Tetranychus cinnabarinus Tetranychus urticae Fungus Ascomycota Diatrypales Diatrypaceae Eutypa armeniacae

Argentine ant German wasp grapevine moth greasy cutworm tomato fruitworm brownheaded leafroller light brown apple moth greenheaded leafroller western flower thrips greenhouse thrips grain thrips plague thrips New Zealand flower thrips onion thrips grape erineum mite grape erineum mite predatory mite predatory mite broad mite bunch mite passionvine mite grapeleaf rust mite sixspotted mite citrus red mite European red mite carmine spider mite twospotted spider mite

eutypa dieback eutypa dieback

Eutypa lata

Dothideales Botryosphaeriaceae	
Botryosphaeria dothidea (anamorph Fusicoccum aesculi) Botryosphaeria obtusa (anamorph Sphaeropsis malorum)	canker blight
Botryosphaeria stevensii (anamorph Diplodia mutila)	botryosphaeria canker
Elsinoaceae	
Elsinoe ampelina (anamorph Sphaceloma ampelinum)	anthracnose
Mycosphaerella personata (anamorph Pseudocercospora	isariopsis blight
<i>Mycosphaerella tassiana</i> (anamorph <i>Cladosporium herbarum</i>) Pleosporaceae	black leaf spot
Pleospora herbarum (anamorph Stemphylium herbarum)	black mould rot
Erysiphales	
El ysipnaceae Devilactinia guttata	nowdory mildow
Friyilactinila guttata Uncinula necator (anamornh Oidium tuckeri)	powdery mildew
Hypocreales	powdery mildew
Hypocreaceae	
Calonectria kyotensis (anamorph Cylindrocladium scoparium) Gibberella fujikuroi (anamorph Fusarium fujikuroi)	root and stem rot fusarium rot fusarium rot
Nectria radicicola (anamorph Cylindrocarnon destructans)	rot
Leotiales	101
Sclerotiniaceae	
Botryotinia fuckeliana (anamorph Botrytis cinerea)	grey mould
Monilinia fructicola	American brown rot
<i>Monilinia laxa</i> (anamorph <i>Monilia laxa</i>)	European brown rot
Sclerotinia sclerotiorum	cottony rot
Phyllachorales	
Phyllachoraceae	
Giomerella cingulata (anamorph Colletotrichum gloeosporioides)	anthracnose
Amphisphaeriaceae	
Discostroma corticola (anamorph Seimatosporium lichenicola)	stem spot
Xvlariaceae	Stem Spot
Rosellinia necatrix (anamorph Dematophora necatrix)	white root rot
Basidiomycota: Basidiomycetes	
Ceratobasidiales	
Ceratobasidiaceae	
<i>Thanatephorus cucumeris</i> (anamorph <i>Rhizoctonia solani</i>)	rhizoctonia rot
Hymenochaetales	
Hymenochaetaceae	h t
Phellinus punctatus	neart rot
Prieilinus Topusius Deriales	DIACK measies
Coriolaceae	
Trametes versicolor	white rot
Schizophyllales	White for
Schizophyllaceae	
Schizophyllum commune	agaric stem rot
Stereales	0
Atheliaceae	
Athelia rolfsii (anamorph Sclerotium rolfsii)	Rolf's disease
Stereaceae	
Stereum hirsutum	black measles
Willosporic Fungi Unknown Mitosporic Eurosi	
Unknown Mitosporic Fungi	
	_
Mitosporic Fungi (Agonomycetes)	

Agonomycetales Agonomycetaceae Beauveria bassiana [Animals Biosecurity] Mitosporic Fungi (Coelomycetes) **Sphaeropsidales** Sphaerioidaceae Fusicoccum luteum Lasiodiplodia theobromae Macrophomina phaseolina Phoma flaccida Phoma glomerata Phoma plurivora Phomopsis viticola **Unknown Coelomycetes** Unknown Coelomycetes Greeneria uvicola Mitosporic Fungi (Hyphomycetes) Hyphomycetales Dematiaceae Alternaria alternata Cladosporium cladosporioides Cladosporium oxysporum Mycosphaerella personate (syn Cladosporium viticola) Moniliaceae Aspergillus aculeatus Aspergillus alutaceus Aspergillus flavus Aspergillus niger Aspergillus wentii Cylindrocladiella parva Penicillium brevicompactum Penicillium canescens Penicillium digitatum Penicillium glabrum Verticillium dahliae **Tuberculariales** Tuberculariaceae Fusarium oxysporum **Unknown Hyphomycetes Unknown Hyphomycetes** Trichothecium roseum Oomycota Peronosporales Peronosporaceae Plasmopara viticola Pythiales Pythiaceae Phytophthora cactorum Phytophthora cinnamomi Phytophthora citricola Phytophthora cryptogea Phytophthora megasperma Phytophthora nicotianae Pythium ultimum Zygomycota: Zygomycetes Mucorales Mucoraceae Rhizopus arrhizus Rhizopus stolonifer

bunch rot fruit and stem-end rot ashy stem blight leaf spot phoma fruit and leaf spot bunch rot dead arm fungus bitter rot black stalk rot cladosporium leaf spot cladosporium leaf spot cladosporium leaf spot aspergillus rot aspergillus rot aspergillus storage rot aspergillus rot aspergillus rot root rot penicillium rot penicillium rot green mould verticillium wilt leaf spot pink rot downy mildew phytophthora crown and root rot phytophthora crown and root rot brown rot of fruit pink rot pink rot buckeye rot leak wet rot rhizopus soft rot

Bacterium

Pseudomonadaceae

Pseudomonas syringae Pseudomonas syringae pv. syringae Pseudomonas viridiflava Rhizobiaceae Agrobacterium vitis

bacterial blast bacterial soft rot leaf blight

crown gall

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Virus

Alfalfa mosaic virus
Arabis mosaic virus
Carnation mottle virus
Cherry leaf roll virus [red raspberry strain]
Cucumber mosaic virus
Grapevine rupestris stem pitting-associated virus
Grapevine fanleaf virus [strains in New Zealand]
Grapevine fleck virus
Grapevine leafroll-associated virus [type 1]
Grapevine leafroll-associated virus [type 2]
Grapevine leafroll-associated virus [type 3]
Grapevine virus A
Grapevine virus B [strains in New Zealand]
Potato virus X
Raspberry bushy dwarf virus
Strawberry latent ringspot virus [Prunus-infecting strain]
Tobacco mosaic virus
Tobacco necrosis virus
Tobacco ringspot virus
Tomato ringspot virus
Tomato spotted wilt virus

Viroid

Citrus exocortis viroid

Disease of unknown aetiology

Grapevine enation	
Grapevine vein mosaic	
Grapevine vein necrosis	

Inspection, Testing and Treatment Requirements for Vitis

ORGANISM TYPES	MAF-ACCEPTED METHODS (See notes below)
Insects	Visual inspection AND approved insecticide treatments (Refer to section
	2.2.1.5 of the basic conditions) [cuttings only].
Mites	Visual inspection AND approved miticide treatments (Refer to section
	2.2.1.5 of the basic conditions) [cuttings only] or binocular microscope
	inspection in PEQ [plants in tissue culture only].
Fungi	Growing season inspection in PEQ for disease symptom expression AND
	examination using a dissecting microscope or hand lens (longitudinal and
	transverse sections) AND plating on potato dextrose agar.
Bacterium	
Agrobacterium rubi,	Growing season inspection in PEQ for disease symptom expression AND
Xanthomonas campestris pv.	Hot water treatment (Refer to "Approved Treatments for Vitis").
viticola and Xilophilus	
ampelinus	
Xylella fastidiosa	Growing season inspection in PEQ for disease symptom expression AND
	PCR (Two tests; Minsavage et al., 1994) AND Hot water treatment
	(Refer to "Approved Treatments for Vitis").
Virus	
Artichoke Italian latent virus	Growing season inspection in PEQ for disease symptom expression.
Broad bean wilt virus	Growing season inspection in PEQ for disease symptom expression.
Cherry leaf roll virus [strains	ELISA or PCR AND herbaceous indicators (Chenopodium
not in New Zealand]	amaranticolor, Chenopodium quinoa, Cucumis sativus and Nicotiana
	tabacum).
Grapevine Ajinashika disease	Growing season inspection in PEQ for disease symptom expression.
virus	
Grapevine Algerian latent virus	Growing season inspection in PEQ for disease symptom expression.
Grapevine angular mosaic	Growing season inspection in PEQ for disease symptom expression.
	Consistence in a profession DEO for disconstructions and a single second
Grapevine asterola mosaic-	Growing season inspection in PEQ for disease symptom expression.
Cranovina harm inner neerosis	Growing sasson inspection in PEO for disease symptom expression
virus	Growing season inspection in FEQ for disease symptom expression.
Granevine Bulgarian latent	Herbaceous indicators (<i>Chenopodium amaranticolor</i> and <i>C auinoa</i>)
virus	Terbaccous indicators (enchopourum unarumicotor and e. quinou).
Grapevine chrome mosaic virus	PCR AND herbaceous indicators (<i>Chenopodium amaranticolor</i>
	Chenopodium auinoa, Cucumis sativus and Nicotiana tabacum).
Grapevine fanleaf virus [strains	ELISA or PCR AND woody indicators (Saint George) or herbaceous
not in New Zealand]	indicators (<i>Chenopodium amaranticolor</i> , <i>Chenopodium quinoa</i> and
	Cucumis sativus).
Grapevine labile rod-shaped	Growing season inspection in PEQ for disease symptom expression.
virus	
Grapevine leafroll-associated	ELISA or PCR AND woody indicators (Cabernet Franc, Merlot or Pinot
virus [type 4]	Noir).
Grapevine leafroll-associated	ELISA or PCR AND woody indicators (Cabernet Franc, Merlot or Pinot
virus [type 5]	Noir).
Grapevine leafroll-associated	Woody indicators (Cabernet Franc, Merlot or Pinot Noir).
virus [type 6]	

Grapevine leafroll-associated	PCR AND woody indicators (Cabernet Franc, Merlot or Pinot Noir).
Grapevine leafroll-associated virus [type 9]	Woody indicators (Cabernet Franc, Merlot or Pinot Noir).
Grapevine line pattern virus	Growing season inspection in PEQ for disease symptom expression.
Grapevine red globe virus	Growing season inspection in PEQ for disease symptom expression.
Grapevine stunt virus	Growing season inspection in PEQ for disease symptom expression.
Grapevine Tunisian ringspot virus	Growing season inspection in PEQ for disease symptom expression.
<i>Grapevine virus B</i> [strains not in New Zealand]	PCR and woody indicators (LN33).
Grapevine virus C	Growing season inspection in PEQ for disease symptom expression.
Grapevine virus D	PCR.
Peach rosette mosaic virus	ELISA or PCR AND herbaceous indicators (Chenopodium
	amaranticolor, Chenopodium quinoa, Cucumis sativus and Nicotiana
	tabacum).
Petunia asteroid mosaic virus	PCR or ELISA.
Raspberry ringspot virus	ELISA or PCR AND herbaceous indicators (Chenopodium
	amaranticolor, Chenopodium quinoa, Cucumis sativus and Nicotiana
	tabacum).
Sowbane mosaic virus	Herbaceous indicators (<i>Chenopodium amaranticolor</i> and <i>C. quinoa</i>).
Strawberry latent ringspot	Herbaceous indicators (Chenopodium amaranticolor, Chenopodium
<i>virus</i> [strains not in New	quinoa and Cucumis sativus).
Zealand	
Tomato black ring virus	ELISA or PCR AND herbaceous indicators (<i>Chenopodium</i>
	amaranticolor, Chenopodium quinoa, Cucumis sativus and Nicotiana
	tabacum).
Viroids	Growing season inspection in PEQ for disease symptom expression
Phytoplasmas	Nested PCR using the universal phytoplasma fU5/rU3 (Lorenz <i>et al.</i>
	1995) and R16F2n/R16R2 primers (Gundersen <i>et al.</i> 1996) and Hot water
	treatment (Refer to "Approved Treatments for Vitis") [cuttings only] OR
	nested PCR using the universal phytoplasma fU5/rU3 (Lorenz <i>et al.</i>
	[1995] and KTOF2I/KTOK2 primers (Gundersen <i>et al.</i> 1990) (two sets)
Disasso of unknown patialagy	
L N33 stem grooving	Woody indicator (IN33)
LINDD SICH GLOUVING	woody multator (LN33).

Notes:

- 1. The unit for testing is an individual plantlet or cutting. Each single plantlet and cutting must be labelled individually and tested separately.
- 2. Herbaceous indicator hosts: at least two plants of each herbaceous indicator species must be used in each test. Tests are to be carried out using the new season's growth in the spring. Plants shall be sampled from at least two positions on every stem including a young, fully expanded leaf at the top of each stem and an older leaf from a midway position. Herbaceous indicator plants must be grown under appropriate temperatures and must be shaded for 24 hrs prior to inoculation. Maintain post-inoculated indicator species under appropriate glasshouse conditions for at least 4 weeks. Inspect inoculated indicator plants at least twice per week for symptoms of virus infection.
- 3. Woody indicators: at least two plants of each woody indicator must be used in each test. All woody indicators are to be inoculated by double budding.

- 4. Enzyme linked immunosorbent assay (ELISA) and polymerase chain reaction (PCR) tests for viruses. Tests must be completed at the optimal time for detection. In general, plants shall be sampled from at least two positions including a young, fully expanded leaf at the top of the stem and an older leaf from a midway position.
- 5. All PCR and ELISA tests must be validated using positive controls prior to use in quarantine testing. Positive and negative controls (including a blank water control for PCR) must be used in all tests. Ideally positive internal controls and a negative plant control should also be used in PCR tests.
- 6. Inspect *Vitis* plants for signs of pest and disease at least twice per week during periods of active growth and once per week during dormancy.
- 7. With prior notification, MAF will accept other internationally recognised testing methods.

References

- Gundersen, D.E., Lee, I.M. 1996. Ultrasensitive detection of phytoplasmas by nested-PCR assays using two universal primer pairs. *Phytopathologia Mediterranea* 35: 144-151.
- Lorenz, K.H., Scheider, B., Ahrens, U., Seemuller, E. 1995. Detection of the Apple proliferation and Pear decline phytoplasmas by PCR Amplification of ribosomal and nonribosomal DNA. *Phytopathology* 85: 771-776.
- Minsavage G.V., Thompson C.M., Hopkins D.L., Leite R.M.V.B.C., Stall R.E., 1994. Development of a PCR protocol for detection of *Xylella fastidiosa* in plant tissue. *Phytopathology* 84: 456-461.

Approved Treatments for Vitis

Hot Water Treatment

The consignment must be treated using hot water treatment (dipping), for the eradication of phytoplasmas and fastidious vascular prokaryotic organisms, as follows:

- 1. Cuttings with good hydration and reserves are stored in a cool room (~ 4°C). Before treatment, the dormant material must be held at room temperature for one day (24 hours).
- 2. For the treatment, the dormant material must be dipped into the hot water at 50°C for 45 minutes or at 45°C for 3 hours (FAO/IBPGR Technical Guidelines for Safe Movement of Grapevine Germplasm, 1990, Martelli G.P and Walter B. Virus Certification of Grapevines. In Plant Virus Disease Control, edited by A. Hadidi, RK Khetarpal and H Koganezawa. APS Press 1998). The water bath must have a moving system to homogenize the temperature and a precise control system to monitor the temperature at an accuracy of 0.1°C.
- 3. After the treatment the cuttings must stay for one day (24 hours) at room temperature. After this period they are transferred to a cool room.

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

GENERAL CONDITIONS:

Countries: All

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

A. For Cuttings (dormant):

PEQ: Level 2 **Minimum Period:** 3 months **Inspection Requirements:** A minimum of 600 plants are to be inspected during each inspection in post-entry quarantine

B. For Plants in Tissue Culture:

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

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

Dormant bulbs Plants in tissue culture

2. Pests of Zantedeschia

Refer to the pest list.

3. Entry conditions for:

3.1 Zantedeschia dormant bulbs from any country

(i) *Documentation*

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

(ii) *Phytosanitary requirements*

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

The Zantedeschia dormant bulbs have been:

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

AND

sourced from a "Pest free area", "Pest free place of production" or "Pest free production site", free from regulated nematodes and fungi OR treated for regulated nematodes and fungi as described in section 2.2.1.7 of the basic conditions within 7 days prior to freezing, cold-storage or shipment.

AND

- sourced from a "Pest free area", "Pest free place of production" or "Pest free production site", free from regulated bacteria and viruses.

AND

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

(iii) Additional declarations to the phytosanitary certificate

If satisfied that the pre-shipment activities have been undertaken, the exporting country NPPO must confirm this by recording the treatments applied in the "Disinfestation and/or Disinfection Treatment" section [if applicable], and by providing the following additional declaration to the phytosanitary certificate:

"The Zantedeschia dormant bulbs in this consignment have been:

- sourced from a "Pest free area", "Pest free place of production" or "Pest free production site", free from regulated nematodes and fungi [if applicable].

AND

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

(iv) <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.

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) *Phytosanitary requirements*

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

The Zantedeschia plants in tissue culture have been:

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

AND

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

AND

- derived from parent stock tested using molecular/ serological methods [choose ONE option] and found free of *Impatiens necrotic spot virus*.

(iv) Additional declarations to the phytosanitary certificate

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

"The Zantedeschia plants in tissue culture have been derived from parent stock:

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

AND

- tested using molecular/ serological methods [choose ONE option] and found free of *Impatiens necrotic spot virus*."

(iv) *Post-entry quarantine*

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

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

Import permit: an import permit is required.

PEQ: Level 3

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

Pest List for Zantedeschia

REGULATED PESTS (actionable)

Nematode	
Secementea	
l ylenchida	
Meloidogyne arenaria	peanul rool knol nemalode
Fungus	
Basidiomycota: Basidiomycetes	
Agaricales	
Tricholomataceae	
Armillaria mellea (anamorph Rhizomorpha subcorticalis)	armillaria root rot
Oomycota	
Pythiales	
Pythiaceae	
Phytophthora richardiae	rhizome and root rot
Pythium aphanidermatum	cottony leak
Bacterium	
Xanthomonas campestris pv. zantedeschiae	-
Virus	
Impatiens necrotic spot virus	-
Zantedeschia mild mosaic virus	-
Zantedeschia mosaic virus (syn. Konjac mosaic virus)	-

NON-REGULATED PESTS (non-actionable)

110000

Insecta	
Coleoptera	
Curculionidae	
Asynonychus cervinus	Fuller's rose weevil
Hemiptera	
Coreidae	
Acantholybas brunneus	-
Homoptera	
Aphididae	
Acyrthosiphon kondoi	bluegreen lucerne aphid
Aulacorthum circumflexum	mottled arum aphid
Coccidae	
Coccus hesperidum	brown soft scale
Pseudococcidae	
Pseudococcus calceolariae	citrophilus mealybug
Pseudococcus viburni	obscure mealybug
Lepidoptera	
Tineidae	
Opogona omoscopa	detritus moth
Thysanoptera	
Thripidae	
Hercinothrips femoralis	banded greenhouse thrips
Thrips obscuratus	New Zealand flower thrips
Thrips simplex	gladiolus thrips
Thrips tabaci	onion thrips
•	

Mite	
Arachnida	
Acarina	
Acaridae	
Rhizoglyphus echinopus	bulb mite
letranychidae	
Tetranychus cinnabarinus	carmine spider mite
Tetranychus urticae	twospotted spider mite
Nematode	
Secernentea	
Tylenchida	
Meloidogynidae	
Meloidogyne incognita	southern root knot nematode
Meloidogyne javanica	Javanese root knot nematode
_	
Fungus	
Ascomycota	
Dothideales	
Mycosphaerellaceae	
Mycosphaerella tassiana (anamorph Cladosporium herbarum)	black leaf spot
Erysiphales	
Erysiphaceae	
<i>Leveillula taurica</i> (anamorph <i>Oidiopsis sicula</i>)	powdery mildew
Hypocreales	
Hypocreaceae	
Bionectria ochroleuca (anamorph Gliocladium roseum)	fusarium rot
Calonectria kyotensis (anamorph Cylindrocladium scoparium)	root and stem rot
<i>Gibberella zeae</i> (anamorph <i>Fusarium graminearum</i>)	headblight of maize
<i>Nectria haematococca</i> (anamorph <i>Fusarium solani</i>)	fusarium fruit rot
Nectria inventa (anamorph Verticillium tenerum)	verticillium rot
Nectria radicicola (anamorph Cylindrocarpon destructans)	rot
Leotiales	
Sclerotiniaceae	
<i>Botryotinia fuckeliana</i> (anamorph <i>Botrytis cinerea</i>)	grey mould
Saccharomycetales	
Dipodascaceae	
Dipodascus geotrichum (anamorph Geotrichum candidum)	sour rot
Xylariales	
Xylariaceae	
Rosellinia necatrix (anamorph Dematophora necatrix)	white root rot
Ceratobasidiales	
Ceratobasidiaceae	
<i>Thanatephorus cucumeris</i> (anamorph <i>Rhizoctonia solani</i>)	rhizoctonia rot
Stereales	
Atheliaceae	
<i>Athelia rolfsii</i> (anamorph <i>Sclerotium rolfsii</i>)	Rolf's disease
Oomycota	
Pythiales	
Pythiaceae	
Phytophthora erythroseptica	pink rot
Pythium coloratum	pythium root rot
Phytophthora meadii	phytophthora rot
Pythium myriotylum	rhizome and root rot
Zygomycota: Zygomycetes	
Mucorales	
Mucoraceae	
Rhizopus stolonifer	rhizopus soft rot
mitosporic fungi (Coelomycetes)	
Sphaeropsidales	
Sphaerioidaceae	

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Phoma exigua Pyrenochaeta terrestris mitosporic fungi (Hyphomycetes)	phoma rot pink root rot
Hyphomycetales	
Dematiaceae	
Alternaria alternata	black stalk rot
Drechslera dematioidea	
Thielaviopsis basicola	black root rot
Moniliaceae	
Verticillium tricorpus	verticillium wilt
Tuberculariales	
Tuberculariaceae	
Fusarium crookwellense	seed potato rot
Fusarium oxysporum	leaf spot
Bacterium	
Erwinia carotovora subsp. carotovora	bacterial soft rot
Pseudomonadaceae	
Pseudomonas fluorescens	pink eve
Pseudomonas svringae pv. svringae	bacterial soft rot
Virus	
Alfalfa mosaic virus	-
Arabis mosaic virus	-
Carnation mottle virus	-
Cucumber mosaic virus	-
Dasheen mosaic virus	-
Potato virus X	-
Tomato spotted wilt virus	-
Turnip mosaic virus	-

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

GENERAL CONDITIONS:

Countries: All

Quarantine Pests: Helicobasidium mompa; Virus diseases

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

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

B. For Dormant Bulbs: PEQ: Level 1 **Minimum Period:** 3 months

Additional Declaration(s):

"The dormant bulbs in this consignment have been:

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

AND

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

AND

sourced from a "Pest free area" or "Pest free place of production", free from *Helicobasidium mompa* OR treated for regulated nematodes and fungi as described in section 2.2.1.7 of the basic conditions within 7 days prior to freezing, cold-storage or shipment."

C. For Tissue Cultures:

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

Additional Declaration:

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