IMPORT HEALTH STANDARD:
155.02.05 IMPORTATION OF SEED FOR SOWING

This import health standard for seed for sowing has been issued pursuant to section 22 of the Biosecurity Act (1993).

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

Date: DD Month YYYY

If this standard needs to be amended or revoked urgently, or the Director-General considers that an amendment is minor, the amendment or revocation may be carried out without prior consultation.

An amendment record for this import health standard, is prescribed in the Amendment Record.

Guidance information for importers has been developed by the Ministry of Primary Industries (MPI) and accompanies this import health standard. Details on how the requirements included in this import health standard can be met are included in the guidance information: http://www.biosecurity.govt.nz/regs/imports/plants/seeds

For a list of definitions in this standard, please refer to Seed for Sowing Definitions.

SCOPE

This import health standard specifies the phytosanitary requirements that must be met for compliant seed for sowing to be given biosecurity clearance to enter New Zealand.

OUTCOMES

All seed for sowing imports must be subject to risk management measures for specified risk organisms associated with the commodity, appropriate to the status of the risk organism, their likelihood of entry and/or establishment in New Zealand and consequent impacts.
PART A: REQUIREMENTS FOR SEED FOR SOWING

1. ENTRY CONDITIONS

The following entry conditions apply to seed imported for sowing:

- Only species listed in the Plants Biosecurity Index with a valid seed for sowing import specification can be imported. Where directed by the Plants Biosecurity Index, species must also meet the requirements outlined in the Schedule of Special Conditions (Part B).
- Each type of seed in a consignment must be clearly identified with its scientific name (genus and species).
- Seed for sowing may be imported from any country, unless otherwise specified in the Schedule of Special Conditions (Part B).
- A permit to import is not required, unless otherwise specified in the relevant Schedule of Special Conditions (Part B).
- Packaging associated with seed must be clean, free from soil and other contaminants.
- Any seed from fleshy fruits shall have all traces of flesh removed, except for Orchidaceae seed (which may be imported in dry/green pods) and any other seed specified in the relevant Schedule of Special Conditions (Part B).

2. PHYTOSANITARY CERTIFICATE

a) For Seed listed in the Plants Biosecurity Index as "Basic"

The Importer may elect one of the following two options:

Option 1: Seed with a phytosanitary certificate
Each lot or consignment is to be accompanied by a phytosanitary certificate issued by the national plant protection organisation (NPPO) in the country of origin, certifying that seed for sowing has been inspected in accordance with appropriate official procedures and found to be free of any visually detectable regulated pests, and conforms to New Zealand’s current import requirements.

Option 2: Seed without a phytosanitary certificate
On arrival in New Zealand the consignment or samples, drawn in accordance with approved sampling rules, are to be inspected by a inspector at the importer's expense.

b) For Seed listed in the Plants Biosecurity Index as "see 155.02.05 under......."

The seed for sowing is to be accompanied by a phytosanitary certificate issued by the national plant protection organisation (NPPO) in the country of origin, certifying that the seed has been inspected in accordance with appropriate official procedures and found to be free of any visually detectable regulated pests, and conforms to New Zealand’s current import requirements. The certificate must include any additional declaration(s) listed in the Schedule of Special Conditions (Part B). The phytosanitary certificate shall contain all information as detailed in International Standard for Phytosanitary Measures, Publication No. 12 (May 2001) – Guidelines for Phytosanitary Certificates.

If visually detectable pests are found which are not listed in the import health standard, the certifying NPPO must establish their regulatory status prior to issuing the certificate. This information is available in MPI’s Biosecurity Organisms Register for Imported Commodities (BORIC). If a visually detectable pest is not listed in this register, the certifying NPPO must contact MPI to establish the regulatory status of the pest.
3. SEED ANALYSIS CERTIFICATE

The Importer may elect one of the following two options:

Option 1: Seed accompanied by a Seed Analysis Certificate

The seed is to be accompanied by a Seed Analysis Certificate, documenting the status of the seed with respect to quarantine impurities, which shall:

i. be issued by a MPI approved, or ISTA or AOSA accredited Seed Testing Station.
ii. show the actual weight of the sample examined.
iii. be endorsed that the sample has been officially drawn from an identified seed lot.
iv. be endorsed that the minimum size of the sample examined was as prescribed for the determination of other species by number in the International Rules for Seed Testing (as published in Seed Science and Technology 24, 1996).
v. state the botanical name of each identified species of seed or nematode gall found in the sample (any unidentified genera or species are to be recorded as such).
vi. give the percentage of soil particles present in the sample.
vii. certify that none of the quarantine weed seeds listed in the Schedule of Regulated (Quarantine) Weed Seeds were present in the sample.

Option 2: Seed not accompanied by a Seed Analysis Certificate

On arrival in New Zealand, samples of the seed will be inspected by MPI Inspectors or, where appropriate, sent to a MPI approved seed testing laboratory for analysis for weed seeds and other contaminants at the importer's expense.

4. INSPECTION ON ARRIVAL

On arrival in New Zealand, each line of seed will undergo inspection to verify that the seed and associated documentation is compliant with the requirements of this import health standard. A 5 kilogram sample will be inspected from each line (or the whole line if less than 5kg), except for hermetically sealed and pelleted seed.

The Maximum Pest Limit (MPL) for visually detectable regulated organisms on seed for sowing is, at a 95% confidence level, not more than 0.5% of the units in the consignment are infested. This equates to an acceptance level of zero units infested by regulated organisms in a sample size of a minimum of 5kg.

Quarantine weed seed contamination shall not exceed the Maximum Pest Limit (MPL) of 0.01%. To achieve 95% confidence that the MPL (of 0.01% probability) will not be exceeded, no quarantine weed seeds are permitted (i.e. acceptance No. = 0) in a sample(s) drawn and analysed by a MPI approved method [e.g. International Seed Testing Association (ISTA) sampling methods (ISTA International Rules for Seed Testing, Seed Science and Technology 24, 1999) are approved by MPI].

No line of seed will be given biosecurity clearance if it contains:

- unidentified seed
- regulated organisms
- greater than 0.1% by weight of soil particles
- seed of any species listed in the Schedule of Regulated (Quarantine) Weed Seeds

5. POST ENTRY QUARANTINE (PEQ)

The Schedule of Special Conditions specifies where seed must be imported into a post entry
quarantine facility for a period of active growth. The seed shall be actively growing during the quarantine period, and will be tested, treated or inspected for regulated pests at the importer’s expense. The post entry quarantine facility shall be approved to the MPI operational standard PBC-NZ-TRA-PQCON. Testing for regulated organisms shall occur on actively growing plants in the greenhouse, at a diagnostic laboratory approved to the MPI diagnostic standard 155.04.03.

6. SEED FOR SOWING OF NEW ZEALAND ORIGIN

Seed for sowing exported from New Zealand, given clearance into the importing country or rejected prior to clearance, may be returned to New Zealand under the following circumstances:

Seed for sowing “unopened” offshore
Product in its original packaging is permitted entry into New Zealand with a re-export phytosanitary certificate issued by the NPPO of the overseas country.

Seed for sowing “opened” offshore
Seed for sowing inspected offshore, and rejected for any reason, is permitted entry into New Zealand. If seed is grown in New Zealand, sent to another country, packaged in that same country and returned to New Zealand, the importer must provide the following:

- A New Zealand issued phytosanitary certificate, and
- An export bill of lading, and
- A declaration by the overseas packing company manager stating that the returning seed is the same seed received in the consignment covered by the attached phytosanitary certificate and bill of lading, and the quality system used by the company ensures that the seed is not contaminated by any other seed lots, residues from grading or packaging machines, or storage pests.

Inspection is required by a MPI inspector to confirm the packaging and labelling is consistent with the documentation provided.

7. IMPORTATION OF SEED PRODUCTS

Imports of seed products (e.g. growing kits, paper with embedded seeds) for propagation must meet the individual import requirements for each type of seed as specified within this Import Health Standard. For seed products that also contain organic growing media (e.g. coir fibre/coco peat, processed plant products), these must also meet the requirements specified in the relevant Import Health Standard. To search for the relevant standard, please refer to the following page on the MPI website: http://www.biosecurity.govt.nz/ihs/search

8. EQUIVALENCE

Seed for sowing that is not compliant with the import health standard, but is, in the opinion of the Director-General, considered to be equivalent to the measures taken for managing the risks associated with the importation of those goods, may be allowed entry into New Zealand. All applications for equivalence should be applied for prior to import. If an equivalence measure(s) is approved MPI will issue a permit to import under Section 22 of the Act.

9. BIOSECURITY CLEARANCE

A biosecurity clearance, under section 26 of the Act, will be issued when seed for sowing meets the requirements of this standard.
PART B: SCHEDULE OF SPECIAL CONDITIONS

The following schedules detail the specific phytosanitary measures that must be met for species that have requirements, as determined by the Plants Biosecurity Index, in addition to the general requirements (Part A).

Abies
Acer
Acrocomia
Actinidia
Agropyron
Agrostis
Arabidopsis thaliana
Avena
Beta
Brassica napus
Camellia sinensis
Camissionia
Cannabis sativa
Carpinus
Carthusius tinctorius
Carva
Castanea
Cicer
Citrus
Cocos
Coffea
Coriandrum
Corylus
Corypha
Cucurbita pepo
Cuminum
Desmodium
Echinochloa
Elaeis
Eriobotrya
Fagus
Fragaria
Glycine
Gossypium
Helianthus
Hordeum
Humulus
Juglans
Lablab
Lavandula
Lens
Linum usitatissimum
Lithocarpus densiflorus
Livistona

Lophophora williamsi
Lotus
Macadamia
Malus
Mangifera
Medicago
Nicotiana tabacum
Oxyria
Panicum
Papaver somniferum
Persea
Phaseolus
Phoenix
Pinus
Pisum
Populus
Prunus
Pseudotsuga menziesii
Psophocarpus
Pyrus
Quercus
Ribes
Rubus idaeus
Sesamum
Solanum tuberosum
Sorghum
Stenotaphrum
Trigonella foenum-graecum
Triticum
Ulmus
Vaccinium
Vicia
Vigna
Zea
Abies

The following entry conditions only apply to species in the Plants Biosecurity Index listed under Import Specifications for Seed as “see 155.02.05 under Abies”:

**Countries:** All

**Quarantine Pests:** *Verticillium albo-atrum* [strain]

**Permit to import:** Not required

**Phytosanitary Certificate Additional Declaration:**

"The seed has been treated with _____ (insert one of the options below) _____ at 2g a.i. per kg seed."

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

captan
thiram
The following entry conditions only apply to species in the Plants Biosecurity Index listed under Import Specifications for Seed as “see 155.02.05 under Acer”:

**Countries:** All

**Quarantine Pests:** None

**Permit to import:** Required

**Phytosanitary Certificate Additional Declaration:**
"The seed has been treated with _____ (insert one of the options below) _____ at 2g a.i. per kg seed."

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

- captan
- thiram
Acrocomia

The following entry conditions only apply to species in the Plants Biosecurity Index listed under Import Specifications for Seed as “see 155.02.05 under Acrocomia”:

Countries: All countries except Guam, the Philippines and the Solomon Islands.

Quarantine Pests: *Coconut cadang-cadang viroid*

Permit to import: Not required

**Phytosanitary Certificate Additional Declaration:**
"The *Acrocomia* seeds for sowing in this consignment have been produced in an approved country and have not been produced in Guam, the Philippines or the Solomon Islands."

Note: Seed covered in a fleshy pericarp will not be permitted entry into New Zealand.
Actinidia

The following entry conditions only apply to species in the Plants Biosecurity Index listed under Import Specifications for Seed as “see 155.02.05 under Actinidia”:

Countries: All

Quarantine Pests: Refer to “Pest List for Actinidia”

Permit to import: Required

PEQ: Level 3
Minimum Period: 6 months

Testing Requirements:

<table>
<thead>
<tr>
<th>ORGANISM TYPES</th>
<th>NZ MPI ACCEPTABLE METHODS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Virus</td>
<td>(See notes below)</td>
</tr>
<tr>
<td>Apple stem grooving virus [Actinidia infecting strain]</td>
<td>ELISA (Bioreba or Loewe) or PCR (Clover et al., 2003), AND herbaceous indicators Cq, Nb, Ng, No and Pv.</td>
</tr>
</tbody>
</table>

Notes:
1. 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.
2. Indicator plants must be grown under appropriate temperatures and must be shaded for 12-24 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. Enzyme linked immunosorbent assay (ELISA); Polymerase chain reaction (PCR).
4. 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 on every stem including a young, fully expanded leaflet at the top of the stem and an older leaflet from a midway position.
5. PCR and ELISA need to be validated using positive controls/reference material prior to use in quarantine testing.
6. Positive and negative controls must be used in ELISA tests.
7. 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.
8. 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.
9. With prior notification, MPI will accept other internationally recognised testing methods.
Agropyron

The following entry conditions only apply to species in the Plants Biosecurity Index listed under Import Specifications for Seed as “see 155.02.05 under Agropyron”.

Countries: All

Quarantine Pests: Tilletia controversa; other Ustilaginales; Trogoderma spp.

Permit to import: Not required

Phytosanitary Requirements:

Before a phytosanitary certificate is issued, the NPPO of the exporting country must be satisfied that the Agropyron seeds for sowing have been:

- sourced from a “Pest free area” or “Pest free place of production”, free from Tilletia controversa

OR

- a representative sample of 600 seeds, drawn from this consignment according to the International Seed Testing Association’s methodology, has been tested for Tilletia controversa

AND

- treated with one of the following fungicide combinations, either
  i) Carboxin at 0.8g a.i. per kg seed and thiram at 1g a.i. per kg seed.
  ii) Carboxin at 0.8g a.i. per kg seed and captan at 0.7g a.i. per kg seed.
  iii) Imazalil at 80mg a.i. per kg seed and triadimenol at 220mg a.i. per kg seed.
  iv) Imazalil at 80mg a.i. per kg seed and flutriafol at 80mg a.i. per kg seed.

Phytosanitary Certificate Additional Declarations:

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:

"Tilletia controversa is not known to occur in _______ (the country or state where the seed was produced) _______".

OR

"The seed is from a crop that has been inspected during the growing season according to appropriate procedures and no Tilletia controversa was detected".

OR

"No spores of Tilletia controversa were found in an officially drawn representative sample of 600 seeds".
Agrostis

The following entry conditions only apply to species in the Plants Biosecurity Index listed under Import Specifications for Seed as “see 155.02.05 under Agrostis”.

Countries: All

Quarantine Pests: Trogoderma spp.; Ustilaginales

Permit to import: Not required

Phytosanitary Requirements:
Before a phytosanitary certificate is issued, the NPPO of the exporting country must be satisfied that the Agrostis seeds for sowing have been treated with one of the following fungicide combinations, either
  i. Carboxin at 0.8g a.i. per kg seed and thiram at 1g a.i. per kg seed.
  ii. Carboxin at 0.8g a.i. per kg seed and captan at 0.7g a.i. per kg seed.
  iii. Imazalil at 80mg a.i. per kg seed and triadimenol at 220mg a.i. per kg seed.
  iv. Imazalil at 80mg a.i. per kg seed and flutriafol at 80mg a.i. per kg seed.

Phytosanitary Certificate Additional Declaration:
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.
Arabidopsis thaliana

The following entry conditions only apply to species in the Plants Biosecurity Index listed under Import Specifications for Seed as “see 155.02.05 under Arabidopsis thaliana”.

Countries: All

Quarantine Pests: None

For Genetically modified seed:
A permit to import is required. All genetically modified seed must also be imported in accordance with a HSNO approval.

For Non-GM seed:
A permit to import is not required. All other seed must be accompanied by a supplier’s declaration stating that the seed is not genetically modified. A declaration form is available on the following page of this schedule.
DECLARATION FOR NON-GENETICALLY MODIFIED ORGANISMS

I……………………………………………………………… declare that pursuant to the requirements set out in the Seed for Sowing Import Health Standard, that the Arabidopsis thaliana seeds 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 who knowingly makes a statement of information or a declaration that is false or misleading in a material particular may on summary conviction, be sentenced to a term of imprisonment and/or a fine not exceeding $500,000.00.
Avena

The following entry conditions only apply to species in the Plants Biosecurity Index listed under Import Specifications for Seed as “see 155.02.05 under Avena”.

Countries: Australia, Austria, Belgium, Canada, Czech Republic, Denmark, Finland, France, Germany, Greece, Hungary, Ireland, Italy, Luxembourg, The Netherlands, Norway, Portugal, Spain, Sweden, Switzerland, United Kingdom and United States of America.

Quarantine Pests: Refer to “Pest List for Avena”.

Permit to import: Not required

Phytosanitary Requirements:
Before a phytosanitary certificate is issued, the NPPO of the exporting country must be satisfied that the Avena seeds for sowing have been:
- inspected in accordance with appropriate official procedures and found to be free of any visually detectable regulated pests, including the regulated insects and mites on MPI’s “Pest List for Avena” and seeds of regulated weed species.

AND
- sourced from a “Pest free area” or “Pest free place of production”, free from Xanthomonas campestris pv. Undulosa and High plains virus.

AND
- sourced from a “Pest free area” or “Pest free place of production”, free from Anguina tritici, or inspected microscopically for Anguina tritici in accordance with appropriate official procedures.

AND
EITHER
- sourced from a “Pest free area” free from Cephalosporium gramineum.

OR
- treated with one of the fungicide combinations described in MPI’s “Approved Treatments for Avena”.

Phytosanitary Certificate Additional Declarations:
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 Avena seeds for sowing in this consignment have been:
- sourced from a “Pest free area”, free from Xanthomonas campestris pv. undulosa, High plains virus and/or a “Pest free place of production”, free from Xanthomonas campestris pv. Undulosa and High plains virus.

AND
- sourced from a “Pest free area” or “Pest free place of production”, free from *Anguina tritici*,
or inspected microscopically for *Anguina tritici* [choose ONE option].
AND
- [if appropriate] sourced from a “Pest free area”, free from *Cephalosporium gramineum.*

**Approved Treatments for *Avena***

One of the following fungicide treatments is required:

i) Carboxin at 0.8 g a.i. per kg of seed and Thiram at 0.8 g a.i. per kg of seed.

ii) Flutriafol at 0.05 g a.i. per kg of seed and Imazalil at 0.05 g a.i. per kg of seed.

iii) Triadimenol at 0.375 g a.i. per kg of seed and Fuberidazole 0.15g a.i per kg of seed.

iv) Triadimenol at 0.23 g a.i. per kg of seed, Imazalil 0.075 g per kg of seed and Fuberidazole 0.15g a.i per kg of seed.

v) Tebuconazole at 0.025 g a.i. per kg of seed and Imazalil at 0.05 g a.i. per kg of seed.

As required, MPI may evaluate other treatments and if effective, will approve these treatments and add them to this schedule.
Beta

The following entry conditions only apply to species in the Plants Biosecurity Index listed under Import Specifications for Seed as “see 155.02.05 under Beta”.

**Countries:** All

**Quarantine Pests:** Clavibacter michiganensis subsp. sepedonicus.

**Permit to import:** Not required

**Phytosanitary Requirements:**

Before a phytosanitary certificate is issued, the NPPO of the exporting country must be satisfied that the Beta seeds for sowing have been:
- 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”, free from Clavibacter michiganensis subsp. sepedonicus.

OR
- A representative sample of 3200 seeds, drawn from this consignment according to the International Seed Testing Association’s methodology, has been tested for Clavibacter michiganensis pv. sepedonicus.

**Phytosanitary Certificate Additional Declarations:**

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 Beta seeds for sowing in this consignment have been:
- sourced from a “Pest free area”, free from Clavibacter michiganensis subsp. sepedonicus.

OR
- Clavibacter michiganensis pv. sepedonicus was not detected in a representative sample of 3200 seeds drawn from this consignment."
Brassica napus

The following entry conditions only apply to species in the Plants Biosecurity Index listed under Import Specifications for Seed as “see 155.02.05 under Brassica napus”.

Countries: All

Quarantine Pests: None

Permit to import: Permit not required, unless seeds are to be grown in PEQ.

Phytosanitary Requirements:
Before a phytosanitary certificate is issued, the NPPO of the exporting country must be satisfied that the following activities have been undertaken:
The Brassica napus seeds for sowing have been inspected in accordance with appropriate official procedures and found to be free of any visually detectable regulated pests.

For positive identification of the imported consignment, the full scientific name of the Brassica napus sub-species or variety plus the appropriate common name must be specified on the phytosanitary certificate, e.g. Brassica napus var. biennis (forage rape) or Brassica napus var. oleifera (oilseed rape). Importers of consignments of Brassica napus that are not identified appropriately will be offered the options of re-shipment, destruction or tested for the presence of unapproved GM seeds.

Genetically Modified Seed Testing:
All consignments of Brassica napus var. oleifera (oilseed rape) are required to be representatively sampled, tested, and found to be free of unapproved GM seeds. A seed testing certificate is required.

If consignments arrive at the New Zealand border without having been tested for the presence of unapproved GM seeds, MPI will offer the importer the options of re-shipping or destroying the consignment, or having the consignment sampled and tested as above at the importer’s expense.

Alternatively, the seeds must be sourced from companies with MPI approved quality assurance systems which demonstrate equivalence with PCR testing every consignment of GM Brassica napus var. oleifera.

Any consignment that is found to contain unapproved GM seeds will not be permitted to enter New Zealand and will be re-shipped or destroyed.

Complete guidelines for sampling and testing for the presence of GM seeds are specified in the Protocol for Testing Seed Imports for the Presence of Genetically Modified Seed. The protocol includes three further options for importers of small volumes of seed (defined as less than 100g for Brassica napus var. oleifera) for cultivar trials and multiplication.
The protocol and a list of MPI-approved facilities for testing for the presence of GM material in *Brassica napus* var. *oleifera* are located at the following address on the MPI website: http://www.biosecurity.govt.nz/regsimports/plants/gmo

Testing may be conducted by facilities approved by MPI under the requirements specified in the Standard “Approval of Facilities for Genetically Modified Organism Testing”. If testing is conducted offshore, a copy of the completed test certificate (from a MPI-approved facility) must accompany the consignment imported into New Zealand. MPI will examine the test certificates on arrival to confirm that they reconcile with the actual consignment. Importers must ensure that MPI has access to all pertinent testing records held by MPI-approved testing facilities for audit purposes.

**Validation of *Brassica napus* varieties (including all sub-species)**

MPI reserves the right to undertake validation audits to confirm that the variety is that which is stated on the phytosanitary certificate accompanying the consignment. This may be done by growing a sample of the seed, or by auditing the crop *in situ*. Audits may be conducted on a random basis and if required, growth of samples will be conducted at MPI accredited facilities at the expense of the importer.
Camellia sinensis

The following entry conditions only apply to species in the Plants Biosecurity Index listed under Import Specifications for Seed as “see 155.02.05 under *Camellia sinensis*”.

**Countries:** All

**Quarantine Pests:** *Exobasidium vexans*; Phloem necrosis

**Permit to import:** Required

**PEQ:** Level 1

**Minimum Period:** 1 growing season

**Isolation:** 50 m

**Phytosanitary Requirements:**

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

The *Camellia sinensis* seeds for sowing have been:

- sourced from a “Pest free area” free from *Exobasidium vexans* and phloem necrosis.

AND

- treated with one of the following fungicide combinations, either
  i) captan at 2g a.i. per kg seed; or
  ii) thiram at 2 g a.i. per kg seed.

**Phytosanitary Certificate Additional Declarations:**

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:

(a) "*Exobasidium vexans* and phloem necrosis are not known to occur in _____ (the country or state where the seed was produced) _____".
The following entry conditions only apply to species in the Plants Biosecurity Index listed under Import Specifications for Seed as “see 155.02.05 under *Camissonia*”.

**Countries:** All

**Quarantine Pests:** *Peronospora arthurii*

**Phytosanitary Requirements:**
Before a phytosanitary certificate is issued, the NPPO of the exporting country must be satisfied that the following activities required by MPI have been undertaken. The *Camissonia* seeds for sowing have been:
- treated with one of the following fungicide combinations, either
  i) captan at 2g a.i. per kg seed; or
  ii) thiram at 2 g a.i. per kg seed.

**Phytosanitary Certificate Additional Declaration:**
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 required.
Cannabis sativa

The following entry conditions only apply to species in the Plants Biosecurity Index listed under Import Specifications for Seed as “see 155.02.05 under Cannabis sativa”.

Note: Importers of Cannabis sativa (low THC hemp seed) must contact the Ministry of Health prior to importation for advice on licensing for low THC hemp seed.

Ministry of Health
P O Box 5013
Wellington
Attention: Advisor, Controlled Drug Licensing
Telephone: 04 496 2000

Countries: All

Quarantine Pests: Refer to “Pest List for Cannabis sativa”.

Permit to import: Not required

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

The Cannabis sativa seeds for sowing have been:
- inspected in accordance with appropriate official procedures and found to be free of any visually detectable regulated pests and regulated weed species, including the regulated insects and mites on MPI’s “Pest List for Cannabis sativa”.

AND EITHER
- sourced from a “Pest free area” or “Pest free place of production”, free from the named regulated bacteria (*Pseudomonas syringae* pv. *cannabina* and *Xanthomonas campestris* pv. *cannabis*).

OR
- treated with the hot water treatment as described in MPI’s “Approved Treatments for Cannabis sativa”;

AND EITHER
- sourced from a “Pest free area” free from the named regulated fungi (*Leptosphaeria woroninii*, *Septoria cannabis* and *Curvularia cymbopogonis*)

OR
- treated with one of the fungicide combinations described in MPI’s “Approved Treatments for Cannabis sativa”;

AND EITHER
- sourced from a “Pest free area” or “Pest free place of production”, free from the named regulated viruses (*Hemp mosaic virus* and *Hemp streak virus*).
Phytosanitary Certificate Additional Declarations:

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 declarations to the phytosanitary certificate:

"The **Cannabis sativa** seeds for sowing in this consignment have been:
- [if appropriate] sourced from a “Pest free area”, free from _____ (name of the regulated bacteria) _____, and/or a “Pest free place of production”, free from _____ (name of the regulated bacteria) _____.

AND
- [if appropriate] sourced from a “Pest free area”, free from _____ (name of the regulated fungi) _____;

AND
- sourced from a “Pest free area”, free from _____ (name of the regulated virus) _____, and/or a “Pest free place of production”, free from _____ (name of the regulated virus) ______.

Approved Testing and Treatments for **Cannabis sativa**:

**Hot water treatment (for bacteria and parasitic weed) prior to shipment**

The **Cannabis sativa** seeds must be treated using a hot water dip for the eradication of bacterial organisms (*Pseudomonas syringae* pv. *cannabina* and *Xanthomonas campestris* pv. *cannabis*). Hot water treatment must be conducted either at 50°C for 30 minutes or at 60°C for 10 minutes ([Hemp Diseases and Pests: Management and Biological Control. J. M. McPartland, R. C. Clarke and D. P. Watson 2000. CAB International](#)).

Note: The hot water treatment that would be carried out in New Zealand as an alternative to the same treatment prior to shipment, cannot be permitted as no MPI-approved facility is currently available in New Zealand.

**Fungicides**

The *Cannabis sativa* seeds must be treated (in lieu of pest free area) with the active ingredients in one of the following treatments

(i) Carboxin at 0.8g a.i. per kg seed and thiram at 1g a.i. per kg seed.
(ii) Carboxin at 0.8g a.i. per kg seed and captan at 0.7g a.i. per kg seed.
(iii) Imazalil at 80mg a.i. per kg seed and triadimenol at 220mg a.i. per kg seed.
(iv) Imazalil at 80mg a.i. per kg seed and flutriafol at 80mg a.i. per kg seed.

As required, MPI may evaluate other treatments and if effective, will approve these treatments and add them to this schedule.
Carpinus

The following entry conditions only apply to species in the Plants Biosecurity Index listed under Import Specifications for Seed as “see 155.02.05 under Carpinus”.

Countries: All

Quarantine Pests: Cladosporium caryigenum

Permit to import: Required

Phytosanitary Certificate Additional Declarations:
"Cladosporium caryigenum" is not known to occur in _____ (the country, or state where the seed was produced) ____

AND

"The seed has been treated with _____ (insert one of the options below) _____ at 2g a.i. per kg seed."

Note: one of the following fungicides is to be used;
captan
thiram
The following entry conditions only apply to species in the Plants Biosecurity Index listed under Import Specifications for Seed as “see 155.02.05 under *Carthamus tinctorius*”.

**Countries:** All

**Quarantine Pests:** *Alternaria carthami; Cercospora carthami; Trogoderma spp.*

**Phytosanitary Requirements:**
Before a phytosanitary certificate is issued, the NPPO of the exporting country must be satisfied that the following activities required by MPI have been undertaken.
- The *Carthamus tinctorius* seeds for sowing have been treated with Iprodione at 2.5g a.i. per kg seed.

**Phytosanitary Certificate Additional Declaration:**
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.
Carya

The following entry conditions only apply to species in the Plants Biosecurity Index listed under Import Specifications for Seed as “see 155.02.05 under Carya”.

Countries:  Australia, USA

Quarantine Pests:  Cladosporium caryigenum; Conotrachelus spp.; Curculiocaryae; Cydia caryana; Trogoderma spp.

Phytosanitary Certificate Additional Declarations:

(a) "Conotrachelus spp., Curculo caryae and Cydia caryana are not known to attack Carya seed or nuts in _____ (the country or state where the seed was produced) _____."

OR

"The seed was fumigated with methyl bromide at ______ pressure for ____ hours at _____ g/m³ at a temperature of _____°C".

Note:  The pressure/time/rate temperature combination used is to be in accordance with the following scale:

<table>
<thead>
<tr>
<th>Temperature</th>
<th>Rate (g/m³)</th>
<th>Time (hours)</th>
<th>Pressure</th>
</tr>
</thead>
<tbody>
<tr>
<td>15 - 21°C</td>
<td>32</td>
<td>12</td>
<td>atmospheric</td>
</tr>
<tr>
<td>21°C or above</td>
<td>16</td>
<td>12</td>
<td>atmospheric</td>
</tr>
<tr>
<td>15 - 21°C</td>
<td>48</td>
<td>1.5</td>
<td>91 kpa vacuum</td>
</tr>
<tr>
<td>21°C or above</td>
<td>48</td>
<td>1.0</td>
<td>91 kpa vacuum</td>
</tr>
</tbody>
</table>

(b) "Cladosporium caryigenum is not known to occur in _____ (the country or state where the seed was produced) _______.”

(c) "The seed has been treated with _______ (insert one of the options below) _______ at 2g a.i. per kg seed.”

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

captan
thiram
Castanea

The following entry conditions only apply to species in the Plants Biosecurity Index listed under Import Specifications for Seed as “see 155.02.05 under Castanea”.

Countries:  All

Quarantine Pests:  Ceratocystis fagacearum; Cryphonectria parasitica; Curculio spp.; Cyrtopistomus castaneus

Permit to import:  Required

PEQ:  Level 3
Minimum Period:  2 years
Isolation:  50m

Phytosanitary Certificate Additional Declarations:
"Cryphonectria parasitica is known not to occur in _____ (the country, or state where the seed was produced) _____"

OR

"The seed was collected from trees that have been officially inspected and found to be free of diseases caused by Cryphonectria spp."

Inspection and testing requirements:

<table>
<thead>
<tr>
<th>ORGANISM</th>
<th>MPI ACCEPTABLE METHOD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fungi</td>
<td></td>
</tr>
<tr>
<td>Ceratocystis fagacearum</td>
<td>Growing season inspection in PEQ for disease symptom expression.</td>
</tr>
<tr>
<td>Cryphonectria parasitica</td>
<td>Growing season inspection in PEQ for disease symptom expression.</td>
</tr>
</tbody>
</table>
**Cicer**

The following entry conditions only apply to species in the Plants Biosecurity Index listed under Import Specifications for Seed as “see 155.02.05 under *Cicer*”.

**Countries:** All

**Quarantine Pests:** *Ascochyta rabiei; Megaselia arietina; Trogoderma spp.*

**Phytosanitary Requirements:**

Before a phytosanitary certificate is issued, the NPPO of the exporting country must be satisfied that the following activities required by the MPI have been undertaken. The *Cicer* seeds for sowing have:

- been sourced from a “Pest free area” or “Pest free place of production”, free from *Ascochyta rabiei*.

**Phytosanitary Certificate Additional Declaration:**

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 *Cicer* seeds for sowing in this consignment have been sourced from a “Pest free area” or “Pest free place of production”, free from *Ascochyta rabiei*.”
Citrus

The following entry conditions only apply to species in the Plants Biosecurity Index listed under Import Specifications for Seed as “see 155.02.05 under Citrus”.

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

Quarantine Pests: *Xanthomonas campestris* pv. *Citri*; ‘*Candidatus* Liberibacter africanus’; ‘*Candidatus* Liberibacter asiaticus’; ‘*Candidatus* Liberibacter americanus’

Phytosanitary Certificate Additional Declaration:

"*Xanthomonas campestris* pv. *citri* is not known to occur in _____ (the country or state where the seed was produced) ______".

AND

"‘*Candidatus* Liberibacter spp.’ is not known to occur in _____ (the country or state where the seed was produced) ______”.
Cocos

The following entry conditions only apply to species in the Plants Biosecurity Index listed under Import Specifications for Seed as “see 155.02.05 under Cocos”.

Countries: All countries except Guam, the Philippines and the Solomon Islands

Quarantine Pests: *Coconut cadang-cadang viroid*

Phytosanitary Requirements:

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

The *Cocos* seeds for sowing have:

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

AND

- been produced in an approved country and have not been produced in Guam, the Philippines or the Solomon Islands.

AND

- been produced in a “Pest free area”, free from *Coconut cadang-cadang viroid*.

Note: Seed covered in a fleshy pericarp will not be permitted entry into New Zealand.

Phytosanitary Certificate Additional Declarations:

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 *Cocos* seeds for sowing in this consignment have:

- been produced in an approved country and have not been produced in Guam, the Philippines or the Solomon Islands.

AND

- been sourced from a “Pest free area”, free from *Coconut cadang-cadang viroid*. 
The following entry conditions only apply to species in the Plants Biosecurity Index listed under Import Specifications for Seed as “see 155.02.05 under Coffea”.

**Countries:** Australia, Cook Islands, Hawaii, Samoa, Tonga

**Quarantine Pests:** *Stephanoderes hampei*

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

The *Coffea* seeds for sowing have been:
- treated with one of the following fungicide combinations, either
  i) captan at 2g a.i. per kg seed; or
  ii) thiram at 2 g a.i. per kg seed.

**Phytosanitary Certificate Additional Declaration:**
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 required.
Coriandrum

The following entry conditions only apply to species in the Plants Biosecurity Index listed under Import Specifications for Seed as “see 155.02.05 under Coriandrum”.

Countries: All

Quarantine Pests: Ramularia coriandri; Trogoderma spp

Phytosanitary Requirements:

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

– sourced from a “Pest free area” or “Pest free place of production”, free from Ramularia coriandri

AND

- treated with one of the following fungicide combinations, either
  i) Benomyl at 2.5 g a.i. per kg seed
  ii) Carbendazim at 2.5 g a.i. per kg seed
  iii) Thiophanate methyl at 2.5 a.i. per kg seed

Phytosanitary Certificate Additional Declarations:

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:

"Ramularia coriandri is not known to occur in _____ (the country or state where the seed was produced) _____."

OR

"The seed is from a crop that has been inspected during the growing season according to appropriate procedures and no Ramularia coriandri was detected".
The following entry conditions only apply to species in the Plants Biosecurity Index listed under Import Specifications for Seed as “see 155.02.05 under *Corylus*”.

**Countries:** All

**Quarantine Pests:** *Cydia latiferreana, Curculio nucum*

There are no specific entry conditions for *Corylus* seeds for sowing aside from the requirement that all *Corylus* seeds imported into New Zealand must have their shells removed to permit inspection prior to entry.
Corypha

The following entry conditions only apply to species in the Plants Biosecurity Index listed under Import Specifications for Seed as “see 155.02.05 under Corypha”.

Countries: All countries except Guam, the Philippines and the Solomon Islands

Quarantine Pests: *Coconut cadang-cadang viroid*

Phytosanitary Requirements:

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

The *Corypha* seeds for sowing have:
- been inspected in accordance with appropriate official procedures and found to be free of any visually detectable regulated pests.

AND
- been produced in an approved country and have not been produced in Guam, the Philippines or the Solomon Islands.

AND
- been produced in a “Pest free area”, free from *Coconut cadang-cadang viroid*.

Note: Seed covered in a fleshy pericarp will not be permitted entry into New Zealand.

Phytosanitary Certificate Additional Declarations:

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 *Corypha* seeds for sowing in this consignment have:
- been produced in an approved country and have not been produced in Guam, the Philippines or the Solomon Islands.

AND
- been sourced from a “Pest free area”, free from *Coconut cadang-cadang viroid*. 
Cucurbita pepo

The following entry conditions only apply to species in the Plants Biosecurity Index listed under Import Specifications for Seed as “see 155.02.05 under Cucurbita pepo”.

Countries: All

Quarantine Pests: None

Phytosanitary Requirements:

There are no specific entry conditions for Cucurbita pepo seeds for sowing except for the following genetically modified varieties which are prohibited entry to New Zealand without HSNO approval:
- Yellow crook neck squash variety ZW20 and CZW3
- Yellow crook neck squash variety “Revenue” and “Tigress”
- Yellow crook neck squash variety Destiny III and Prelude II

Documentation accompanying imports should declare that the consignment does not contain seeds of the above prohibited varieties.

The required declaration may be contained on either:
- an importer’s declaration, or
- an exporter’s declaration.
The following entry conditions only apply to species in the Plants Biosecurity Index listed under Import Specifications for Seed as “see 155.02.05 under Cuminum”.

Countries: All

Quarantine Pests: Alternaria burnsii

Phytosanitary Requirements:
Before a phytosanitary certificate is issued, the NPPO of the exporting country must be satisfied that the following activities required by MPI have been undertaken.
The Cuminum seeds for sowing have been:
- sourced from a “Pest free area” or “Pest free place of production”, free from Alternaria burnsii
AND
- treated with Iprodione at 2.5g a.i. per kg seed.

Phytosanitary Certificate Additional Declarations:
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:

"Alternaria burnsii is not known to occur in _____ (the country or state where the seed was produced) _____". OR
"The seed is from a crop that has been inspected during the growing season according to appropriate procedures and no Alternaria burnsii was detected".
The following entry conditions only apply to species in the Plants Biosecurity Index listed under Import Specifications for Seed as “see 155.02.05 under Desmodium”.

**Countries:** All

**Quarantine Pests:** Desmodium mosaic virus; Trogoderma spp.

**Phytosanitary Certificate Additional Declarations:**

"Desmodium mosaic virus is not known to occur in _____ (the country or state where the seed was produced) _____."

OR

"The seed is from a crop that has been inspected during the growing season according to appropriate procedures and no Desmodium mosaic virus was detected".
Echinochloa

The following entry conditions only apply to species in the Plants Biosecurity Index listed under Import Specifications for Seed as “see 155.02.05 under Echinochloa”.

Countries: All

Quarantine Pests: *Sclerospora graminicola*; *Trogoderma* spp.; Ustilaginales

Phytosanitary Requirements:
Before a phytosanitary certificate is issued, the NPPO of the exporting country must be satisfied that the following activities required by MPI have been undertaken.
The *Echinochloa* seeds for sowing have been:
- sourced from a “Pest free area” or “Pest free place of production”, free from *Sclerospora graminicola*
AND
- treated with one of the following fungicide combinations, either
  i)  Carboxin at 0.8g a.i. per kg seed and thiram at 1g a.i. per kg seed.
  ii) Carboxin at 0.8g a.i. per kg seed and captan at 0.7g a.i. per kg seed.
  iii) Imazalil at 80mg a.i. per kg seed and triadimenol at 220mg a.i. per kg seed.
  iv) Imazalil at 80mg a.i. per kg seed and flutriafol at 80mg a.i. per kg seed.

Phytosanitary Certificate Additional Declarations:
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:

"*Sclerospora graminicola* is not known to occur in ______ (the country or state where the seed was produced) ______.

OR

"The seed is from a crop that has been inspected during the growing season according to appropriate procedures and no *Sclerospora graminicola* was detected".

Elaeis

The following entry conditions only apply to species in the Plants Biosecurity Index listed under Import Specifications for Seed as “see 155.02.05 under Elaeis”.

Countries: All countries except Guam, the Philippines and the Solomon Islands

Quarantine Pests: *Coconut cadang-cadang viroid*

Phytosanitary Requirements:
Before a phytosanitary certificate is issued, the NPPO of the exporting country must be satisfied that the following activities required by the MPI have been undertaken. The *Elaeis* seeds for sowing have:
- been inspected in accordance with appropriate official procedures and found to be free of any visually detectable regulated pests.
AND
- been produced in an approved country and have not been produced in Guam, the Philippines or the Solomon Islands.
AND
- been produced in a “Pest free area”, free from *Coconut cadang-cadang viroid*.

Note: Seed covered in a fleshy pericarp will not be permitted entry into New Zealand.

Phytosanitary Certificate Additional Declarations:
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 *Elaeis* seeds for sowing in this consignment have:
- been produced in an approved country and have not been produced in Guam, the Philippines or the Solomon Islands.
AND
- been sourced from a “Pest free area”, free from *Coconut cadang-cadang viroid*. 
The following entry conditions only apply to species in the Plants Biosecurity Index listed under Import Specifications for Seed as “see 155.02.05 under Eriobotrya”.

**Countries:** All

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

**Permit to import:** Required

**OPTION 1**

Phytosanitary Certificate Additional Declaration:

“*Pseudomonas syringae pv. eriobotryae is not known to occur in _____ (the country or state where the seed was produced) ______*”.

**OPTION 2**

**PEQ:** Level 3

**Minimum Period:** 2 growing seasons
The following entry conditions only apply to species in the Plants Biosecurity Index listed under Import Specifications for Seed as “see 155.02.05 under Fagus”.

**Countries:** All

**Quarantine Pests:** *Tortricidae*

**Phytosanitary Certificate Additional Declaration:**

"The seed has been treated with ______ (insert one of the options below) ______ at 2g a.i. per kg seed."

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

- captan
- thiram
The following entry conditions only apply to species in the Plants Biosecurity Index listed under Import Specifications for Seed as “see 155.02.05 under Fragaria”.

Countries: All

Quarantine Pests: Refer to “Pest List for Fragaria”.

Permit to import: Required

PEQ: Level 3
Minimum Period: 6 months

Phytosanitary Requirements:
Before a phytosanitary certificate is issued, the NPPO of the exporting country must be satisfied that the following activities required by MPI have been undertaken. “The Fragaria seeds for sowing have been inspected in accordance with appropriate official procedures and found to be free of any visually detectable regulated pests.”

Inspection, Testing and Treatment Requirements:

<table>
<thead>
<tr>
<th>ORGANISM TYPES</th>
<th>NZ MPI ACCEPTABLE METHODS</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>(See notes below)</td>
</tr>
<tr>
<td>Virus</td>
<td></td>
</tr>
<tr>
<td>Fragaria chiloensis latent virus</td>
<td>Herbaceous indexing with Cq</td>
</tr>
<tr>
<td>Raspberry ringspot virus</td>
<td>ELISA or PCR and herbaceous indexing with Cq</td>
</tr>
<tr>
<td>Strawberry latent ringspot virus</td>
<td>ELISA or PCR and herbaceous indexing with Cq</td>
</tr>
<tr>
<td>Tobacco streak virus</td>
<td>ELISA or PCR and herbaceous indexing with Cq</td>
</tr>
<tr>
<td>Tomato black ring virus</td>
<td>ELISA and herbaceous indexing with Cq</td>
</tr>
<tr>
<td>Tomato ringspot virus</td>
<td>ELISA or PCR and herbaceous indexing with Cq</td>
</tr>
</tbody>
</table>

Key: Cq – Chenopodium quinoa
ELISA - Enzyme linked immunosorbent assay
PCR - Polymerase chain reaction

Notes:
1. Tests are to be carried out on plants germinated from the imported seeds.
2. The unit for testing is an individual seedling unless evidence is supplied by the exporting NPPO that seeds have been derived from the same mother plant. Bulking of up to 5 seedlings derived from the same mother plant, for ELISA or PCR testing, is acceptable. Samples must be tested individually by herbaceous indexing.
3. Testing must be carried out on plants while they are in active growth.
4. Indicator plants must be grown under appropriate temperatures.
5. Indicator plants must be shaded for 12-24 hrs prior to inoculation.
6. For each *Fragaria* plant, at least two young fully-expanded leaves must be sampled from the apical crown region.
7. Post-inoculated indicator plants must be maintained under appropriate glasshouse conditions for at least 4 weeks.
8. Post-inoculated indicator plants must be inspected at least twice per week for signs of virus infection with observations being recorded on a weekly basis.
9. PCR and ELISA need to be validated using positive controls/reference material prior to use in quarantine testing.
10. Positive, negative, and buffer controls must be used in ELISA tests.
11. Positive controls must be used in PCR.
12. Inspection of the *Fragaria* plants by the operator of the PEQ facility for signs of pest and disease must be at least once per week.
13. Other internationally recognised testing methods may be accepted by MPI with prior notification.

**References**


**Glycine**

The following entry conditions only apply to species in the Plants Biosecurity Index listed under Import Specifications for Seed as “see 155.02.05 under Glycine”.

**Countries:** All

**Quarantine Pests:** Peronospora manshurica; Trogoderma spp.

**Permit to import:** Permit not required, unless seeds are to be grown in PEQ.

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

The *Glycine* seeds for sowing have been:
- inspected in accordance with appropriate official procedures and found to be free of any visually detectable regulated pests, including *Trogoderma* spp.
AND
- sourced from a “Pest free area” or “Pest free place of production”, free from *Peronospora manshurica*.
AND
- treated against *Peronospora manshurica* using one of the following fungicide combinations, either
  i) metalaxyl at 0.7 g a.i. per kg seed and captan at 0.7 g a.i. per kg seed; or
  ii) metalaxyl at 0.7 g a.i. per kg seed and thiram at 1 g a.i. per kg seed.

With prior approval, MPI may evaluate other treatments and if effective, will approve these treatments and add them to this schedule.

**Phytosanitary Certificate Additional Declarations:**
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 must confirm this by providing the following additional declarations to the phytosanitary certificate:

"The *Glycine* seeds for sowing in this consignment have been:
- inspected in accordance with appropriate official procedures and found to be free of any visually detectable regulated pests, including *Trogoderma* spp.
AND
- sourced from a “Pest free area” or “Pest free place of production”, free from *Peronospora manshurica*.

**Genetically Modified Seed Testing:**
MPI requires all consignments of *Glycine max* (soybean) imported into New Zealand to be representatively sampled, tested, and found to be free of unapproved GM seeds. A seed testing
certificate is required.

If consignments arrive at the New Zealand border without having been tested for the presence of unapproved GM seeds, MPI will offer the importer the options of re-shipping or destroying the consignment, or having the consignment sampled and tested as above at the importer’s expense.

Alternatively, the seeds must be sourced from companies with MPI approved quality assurance systems which demonstrate equivalence with PCR testing every consignment of GM *Glycine max*.

Any consignment that is found to contain unapproved GM seeds will not be permitted to enter New Zealand and will be re-shipped or destroyed.

Complete guidelines for sampling and testing for the presence of GM seeds are specified in the *Protocol for Testing Seed Imports for the Presence of Genetically Modified Seed*. The protocol includes three further options for importers of small volumes of seed (defined as less than 100g for *Glycine max*) for cultivar trials and multiplication.

The protocol and a list of MPI-approved facilities for testing for the presence of GM material in *Glycine max* are located at the following address on the MPI website:


Testing may be conducted by facilities approved by MPI under the requirements specified in the Standard “Approval of Facilities for Genetically Modified Organism Testing”. If testing is conducted offshore, a copy of the completed test certificate (from a MPI-approved facility) must accompany the consignment imported into New Zealand. MPI will examine the test certificates on arrival to confirm that they reconcile with the actual consignment. Importers must ensure that MPI has access to all pertinent testing records held by MPI-approved testing facilities for audit purposes.
Gossypium

The following entry conditions only apply to species in the Plants Biosecurity Index listed under Import Specifications for Seed as “see 155.02.05 under Gossypium”.

Countries: Australia

Quarantine Pests: Anthonomus grandis; Trogoderma spp.

Phytosanitary Certificate Additional Declaration:
A completed phytosanitary certificate issued by the national plant protection organisation of the exporting country must accompany all consignments of Gossypium seeds for sowing exported to New Zealand. The phytosanitary certificate must include the following additional declaration: "The seed has been cleaned and is completely free of lint".

Import permit: Required. When applying for an import permit, the importer will be required to provide appropriate assurances that the consignment to be imported does not contain unauthorised genetically modified seeds. Appropriate assurances include testing the consignment, or testing the parent plants and isolating the crop during production. The New Zealand Ministry for Primary Industries will develop a specific testing protocol for Gossypium hirsutum seeds for sowing if a significant number of consignments are exported to New Zealand.
The following entry conditions only apply to species in the Plants Biosecurity Index listed under Import Specifications for Seed as “see 155.02.05 under Helianthus”.

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

Quarantine Pests: Alternaria helianthi; Lasioptera murtfeldtiana; Plasmopara halstedii; Septoria helianthi; Sunflower mosaic virus; Trogoderma spp.

Phytosanitary Certificate Additional Declarations:

(a) "Alternaria helianthi, Lasioptera murtfeldtiana, Plasmopara halstedii, Septoria helianthi, and Sunflower mosaic virus are not known to occur in _____ (the country or state where the seed was produced) ______".

OR

"The seed is from a crop that has been inspected during the growing season according to appropriate procedures and no Alternaria helianthi, Lasioptera murtfeldtiana, Plasmopara halstedii, Septoria helianthi or Sunflower mosaic virus was detected".

OR

(i) "The seed is from a crop that has been inspected during the growing season according to appropriate procedures and no Lasioptera murtfeldtiana, Plasmopara halstedii or Sunflower mosaic virus was detected".

(ii) “No evidence of contamination with Alternaria helianthi or Septoria helianthi was found in 600 pure seeds drawn and tested in accordance with the general directions for seed health testing in the current International Rules for Seed Testing”.

(b) "The seed has been treated with _____ (insert one of the options below) ______".

Note: One of the following fungicide combinations is to be used:

(i) Metalaxyl at 0.7g a.i. per kg seed and captan at 0.7g a.i. per kg seed.
(ii) Metalaxyl at 0.7g a.i. per kg seed and thiram at 1g a.i. per kg seed.
Hordeum

The following entry conditions only apply to species in the Plants Biosecurity Index listed under Import Specifications for Seed as “see 155.02.05 under Hordeum”.

Countries: Australia, Austria, Belgium, Canada, Czech Republic, Denmark, Finland, France, Germany, Greece, Hungary, Ireland, Italy, Japan, Luxembourg, The Netherlands, Norway, Portugal, Spain, Sweden, Switzerland, United Kingdom and United States of America

Quarantine Pests: Refer to “Pest List for Hordeum”.

Phytosanitary Requirements:

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

The Hordeum seeds for sowing have been:
- inspected in accordance with appropriate official procedures and found to be free of any visually detectable regulated pests, including the regulated insects and mites on MPI’s “Pest List for Hordeum” and seeds of regulated weed species.

AND
- sourced from a “Pest free area” or “Pest free place of production”, free from the named regulated bacteria (Pseudomonas syringae pv. striafaciens, Rathayibacter tritici, Xanthomonas campestris pv. undulosa) and viruses (Barley mosaic virus, High plains virus).

AND
EITHER
- sourced from a “Pest free area” free from the named regulated fungi (Cephalosporium gramineum, Fusarium longipes).
  OR
- treated with one of the fungicide combinations described in MPI’s “Approved Treatments for Hordeum”;

AND
EITHER
- sourced from a “Pest free area” free from Tilletia controversa
  OR
- sourced from a “Pest free place of production”, free from Tilletia controversa, AND treated with one of the fungicide combinations described in MPI’s “Approved Treatments for Hordeum”.
  OR
- a representative sample of 600 seeds, drawn from this consignment according to the International Seed Testing Association’s methodology, has been tested for Tilletia controversa, AND treated with one of the fungicide combinations described in MPI’s “Approved Treatments for Hordeum”.

Phytosanitary Certificate Additional Declarations:
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 *Hordeum* seeds for sowing in this consignment have been:
- sourced from a “Pest free area”, free from _____ (name of the above regulated bacteria and viruses) _____, and/or a “Pest free place of production”, free from _____ (name of the above regulated bacteria and viruses) _____.

AND
- sourced from a “Pest free area”, free from _____ (name of the above regulated fungi) _____;
AND

EITHER [choose ONE option]
- sourced from a “Pest free area”, free from *Tilletia controversa*,
  OR
- sourced from a “Pest free place of production”, free from *Tilletia controversa*,
  OR
- No spores of *Tilletia controversa* were found in a representative sample of 600 seeds drawn from this consignment."

**Approved Treatments:**

**Fungicides**

One of the following treatments is required:

i) Carboxin at 0.8 g a.i. per kg of seed and Thiram at 0.8 g a.i. per kg of seed.
ii) Carboxin at 0.8 g a.i. per kg of seed and Imazalil at 0.05 g a.i. per kg of seed.
iii) Flutriafol at 0.05 g a.i. per kg of seed and Imazalil at 0.05 g a.i. per kg of seed.
iv) Triadimenol at 0.375 g a.i. per kg of seed and Fuberidazole 0.15g a.i per kg of seed.
v) Triadimenol at 0.23 g a.i. per kg of seed, Imazalil 0.075 g per kg of seed and Fuberidazole 0.15g a.i per kg of seed.
v) Tebuconazole at 0.025 g a.i. per kg of seed and Imazalil at 0.05 g a.i. per kg of seed.

As required, MPI may evaluate other treatments and if effective, will approve these treatments and add them to this schedule.
The following entry conditions only apply to species in the Plants Biosecurity Index listed under Import Specifications for Seed as “see 155.02.05 under *Humulus lupulus*”.

**Countries:** All

**Quarantine Pests:** *Pseudoperonospora humuli; Verticillium albo-atrum*

**Permit to import:** Required

**PEQ:** Level 3

**Minimum Period:** 1 growing season
The following entry conditions only apply to species in the Plants Biosecurity Index listed under Import Specifications for Seed as “see 155.02.05 under *Juglans*”.

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

**Quarantine Pests:** *Gnomonia leptostyla*; Pyralidae; Tortricidae; *Trogoderma* spp; Cherry leaf roll virus

**Permit to import:** Required

**PEQ:** Level 1

**Minimum Period:** 2 growing seasons

**Isolation:** 50m

**Phytosanitary Certificate Additional Declarations:**

(a) "*Gnomonia leptostyla* and Cherry leaf roll virus are not known to occur in _____ (the country or state where the seed was produced) _____".

OR

"The seed is from trees that have been inspected during the growing season according to appropriate procedures and no *Gnomonia leptostyla* or Cherry leaf roll virus was detected".

(b) "The seed was fumigated with methyl bromide at ___ pressure for ___ hours at ___ g/m³ at a temperature of ___ °C".

**Note:** The pressure/time/rate temperature combination used is to be in accordance with the following scale:

<table>
<thead>
<tr>
<th>Temperature</th>
<th>Rate (g/m³)</th>
<th>Time (hours)</th>
<th>Pressure</th>
</tr>
</thead>
<tbody>
<tr>
<td>15 - 21°C</td>
<td>32</td>
<td>12</td>
<td>Atmospheric</td>
</tr>
<tr>
<td>21°C or above</td>
<td>16</td>
<td>12</td>
<td>Atmospheric</td>
</tr>
<tr>
<td>15 - 21°C</td>
<td>48</td>
<td>1.5</td>
<td>91 kpa vacuum</td>
</tr>
<tr>
<td>21°C or above</td>
<td>48</td>
<td>1.0</td>
<td>91 kpa vacuum</td>
</tr>
</tbody>
</table>
The following entry conditions only apply to species in the Plants Biosecurity Index listed under Import Specifications for Seed as “see 155.02.05 under Lablab”.

**Countries:** All

**Quarantine Pests:** *Earias vitella; Maruca testulalis; Trogoderma spp.*

**For seed in pods:**

**Phytosanitary Certificate Additional Declaration:**

"The pods were inspected before export and no caterpillars of *Earias vitella* or *Maruca testulalis* were found in a 600 unit sample".
The following entry conditions only apply to species in the Plants Biosecurity Index listed under Import Specifications for Seed as “see 155.02.05 under under Lavandula”.

Countries: All

Quarantine Pests: *Coniothyrium lavandulae; Phoma lavandulae*

Phytosanitary Requirements:
Before a phytosanitary certificate is issued, the NPPO of the exporting country must be satisfied that the following activities required by MPI have been undertaken. The *Lavandula* seeds for sowing have been:
- sourced from a “Pest free area” or “Pest free place of production”, free from *Coniothyrium lavandulae and Phoma lavandulae*

AND
- treated with one of the following fungicide combinations, either
  i) Benomyl at 2.5 g a.i. per kg seed
  ii) Carbendazim at 2.5 g a.i. per kg seed
  iii) Thiophanate methyl at 2.5 a.i. per kg seed

Phytosanitary Certificate Additional Declarations:
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:

"*Coniothyrium lavandulae and Phoma lavandulae* are not known to occur in _____ (the country or state where the seed was produced) _______."

OR

"The seed is from a crop that has been inspected during the growing season according to appropriate procedures and no *Coniothyrium lavandulae or Phoma lavandulae* was detected".
The following entry conditions only apply to species in the Plants Biosecurity Index listed under Import Specifications for Seed as “see 155.02.05 under Lens”.

**Countries:** All

**Quarantine Pests:** *Trogoderma granarium*

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

The *Lens* seeds for sowing have been:
- inspected in accordance with appropriate official procedures and found to be free of any visually detectable regulated pests, including *Trogoderma granarium*.

**Phytosanitary Certificate Additional Declarations:**
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 *Lens* seeds for sowing in this consignment have been inspected in accordance with appropriate official procedures and found to be free of *Trogoderma granarium.*"
Linum usitatissimum

The following entry conditions only apply to species in the Plants Biosecurity Index listed under Import Specifications for Seed as “see 155.02.05 under Linum usitatissimum”.

Countries: All

Quarantine Pests: None

Phytosanitary Requirements:

There are no specific entry conditions for *Linum usitatissimum* seeds for sowing except for the following genetically modified variety which is prohibited entry to New Zealand without HSNO approval:

*Linum usitatissimum* var. FP967 (CDC Triffid)

Importers should declare that the consignment is not known to contain seeds of the above prohibited variety.

A declaration form is available on the following page of this schedule.
DECLARATION FOR NON-GENETICALLY MODIFIED ORGANISMS

I……………………………………………………… declare that pursuant to the requirements set out in the Seed for Sowing Import Health Standard, that the Linum usitatissimum seeds 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 who knowingly makes a statement of information or a declaration that is false or misleading in a material particular may on summary conviction, be sentenced to a term of imprisonment and/or a fine not exceeding $500,000.00.
Lithocarpus densiflorus

The following entry conditions only apply to species in the Plants Biosecurity Index listed under Import Specifications for Seed as “see 155.02.05 under Lithocarpus densiflorus”.

Countries: Australia, Canada, Germany, India, Israel, Japan, Mexico, Tunisia, UK, USA

Quarantine Pests: Ceratocystis fagacearum; Tortricidae

Permit to import: Required

PEQ: Level 1
Isolation: 50 m

Phytosanitary Certificate Additional Declarations:

"Ceratocystis fagacearum is not known to occur in _____ (the country or state where the seed was produced) _____".

OR

(i) "Seed has been collected from trees that have been officially inspected for disease caused by Ceratocystis fagacearum and no disease was detected”.

(ii) "The seed has been treated with _____ (insert one of the options below) _____ at 2g a.i. per kg seed."

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

captan
thiram
The following entry conditions only apply to species in the Plants Biosecurity Index listed under Import Specifications for Seed as “see 155.02.05 under Livistona”.

**Countries:** All countries except Guam, the Philippines and the Solomon Islands

**Quarantine Pests:** *Coconut cadang-cadang viroid*

**Phytosanitary Requirements:**

Before a phytosanitary certificate is issued, the NPPO of the exporting country must be satisfied that the following activities required by the MPI have been undertaken. The *Livistona* seeds for sowing have:

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

AND

− been produced in an approved country and have not been produced in Guam, the Philippines or the Solomon Islands.

AND

− been produced in a “Pest free area”, free from *Coconut cadang-cadang viroid*.

**Note:** Seed covered in a fleshy pericarp will not be permitted entry into New Zealand.

**Phytosanitary Certificate Additional Declarations:**

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 *Livistona* seeds for sowing in this consignment have:

− been produced in an approved country and have not been produced in Guam, the Philippines or the Solomon Islands.

AND

− been sourced from a “Pest free area”, free from *Coconut cadang-cadang viroid*. 
The following entry conditions only apply to species in the Plants Biosecurity Index listed under Import Specifications for Seed as “see 155.02.05 under *Lophophora williamsii*”.

**Countries:** All

**Import Permit and Licence:** an import permit and a licence to import controlled drugs are both required. Before applying for an import permit from the Ministry for Primary Industries, the importer must obtain a licence to import controlled drugs from:

**Director General of Health**  
**Ministry of Health**  
**P O Box 5013**  
**Wellington**  
**Attention: Advisor, Controlled Drug Licensing**

**Telephone: 04 496 2438**
The following entry conditions only apply to species in the Plants Biosecurity Index listed under Import Specifications for Seed as “see 155.02.05 under Lotus”.

**Countries:** All

**Quarantine Pests:** *Cercospora loti, Trogoderma spp.*

**Phytosanitary Certificate Additional Declarations:**

"*Cercospora loti* is not known to occur in ____ (the country or state where the seed was produced) ____".

OR

"The seed is from a crop that has been inspected during the growing season according to appropriate procedures and no *Cercospora loti* was detected".
Macadamia

The following entry conditions only apply to species in the Plants Biosecurity Index listed under Import Specifications for Seed as “see 155.02.05 under Macadamia”.

Countries: All

Quarantine Pests: Cryptophlebia ombrodelta; Deudorix epijarbos; Dichocrocis punctiferalis; Isotenes miserana

Phytosanitary Certificate Additional Declaration:

"The seed was fumigated with methyl bromide at ___ pressure for ___ hours at ___ g/m³ at a temperature of ___ °C".

Note: The pressure/time/rate temperature combination used is to be in accordance with the following scale:

<table>
<thead>
<tr>
<th>Temperature</th>
<th>Rate (g/m³)</th>
<th>Time (hours)</th>
<th>Pressure</th>
</tr>
</thead>
<tbody>
<tr>
<td>15 - 21°C</td>
<td>32</td>
<td>12</td>
<td>atmospheric</td>
</tr>
<tr>
<td>21°C or above</td>
<td>16</td>
<td>12</td>
<td>atmospheric</td>
</tr>
<tr>
<td>15 - 21°C</td>
<td>48</td>
<td>1.5</td>
<td>91 kpa vacuum</td>
</tr>
<tr>
<td>21°C or above</td>
<td>48</td>
<td>1.0</td>
<td>91 kpa vacuum</td>
</tr>
</tbody>
</table>
Malus

The following entry conditions only apply to species in the Plants Biosecurity Index listed under Import Specifications for Seed as “see 155.02.05 under Malus”.

Countries: All

Quarantine Pests: Apple scar skin viroid; Monilinia fructigena; Sowbane mosaic virus; Tomato bushy stunt virus

Permit to import: Required

PEQ: Level 3
Minimum Period: 6 months

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

The Malus seeds for sowing have been
– inspected in accordance with appropriate official procedures and found to be free of the regulated pests (regulated weed species) specified by MPI.

Inspection, Testing and Treatment Requirements:

<table>
<thead>
<tr>
<th>ORGANISM TYPES</th>
<th>MPI ACCEPTABLE METHODS (See notes below)</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fungi</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Monilinia fructigena</td>
<td>Growing season inspection in PEQ for disease symptom expression.</td>
<td></td>
</tr>
<tr>
<td>Viroid</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Apple scar skin viroid</td>
<td>PCR using the method of Hadidi et al. (1990).</td>
<td></td>
</tr>
<tr>
<td>Virus</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sowbane mosaic virus</td>
<td>Herbaceous indicators Ca &amp; Cq.</td>
<td></td>
</tr>
<tr>
<td>Tomato bushy stunt virus</td>
<td>ELISA (Agdia) or PCR AND herbaceous indicators Cq, Nc.</td>
<td></td>
</tr>
</tbody>
</table>

Notes:
1. Indicator hosts: Chenopodium amaranticolor (Ca), C. quinoa (Cq) and Nicotiana clevelandi (Nc).
2. Enzyme linked immunosorbent assay (ELISA).
3. Polymerase chain reaction (PCR).
4. With prior notification, MPI will accept other internationally recognised testing methods.
5. For bioassay and ELISA, plants shall 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.
6. Indicator plants must be grown under appropriate temperatures.
7. Indicator plants must be shaded for 12-24 hrs prior to inoculation.
8. Maintain post-inoculated indicator species under appropriate glasshouse conditions for at least 4 weeks.
9. Inspect plants at least once per week for signs of pest and disease.
10. Inspect inoculated herbaceous indicator plants at least twice per week for symptoms of virus infection.
11. PCR and ELISA need to be validated using positive controls/reference material prior to use in quarantine testing.
12. At least two plants of each indicator species unless otherwise stated must be used in mechanical inoculation tests.
13. Positive and negative controls must be used in ELISA tests.
14. Testing must be carried out on plants while they are in active growth.
15. 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.

Reference

Mangifera

The following entry conditions only apply to species in the Plants Biosecurity Index listed under Import Specifications for Seed as “see 155.02.05 under Mangifera”.

Countries: All

Quarantine Pests: Sternochetus mangiferae; Xanthomonas campestris pv. mangiferae-indicae

Permit to import: Required

PEQ: Level 1
Minimum Period: 2 growing seasons
Isolation: 50 m

Phytosanitary Certificate Additional Declaration:

"The trees from which the seed was harvested were inspected during the growing season Xanthomonas campestris pv. mangiferae-indicae was not detected".
Medicago

The following entry conditions only apply to species in the Plants Biosecurity Index listed under Import Specifications for Seed as “see 155.02.05 under Medicago”.

Countries: All

Quarantine Pests: Pea early browning virus; Peanut stunt virus; Trogoderma granarium; Xanthomonas campestris pv. alfalfa.

Permit to import: Permit not required, unless seeds are to be grown in PEQ.

Phytosanitary Requirements:
Before a phytosanitary certificate is issued, the NPPO of the exporting country must be satisfied that the following activities required by the MPI have been undertaken.
The Medicago seeds for sowing have been:
− inspected in accordance with appropriate official procedures and found to be free of any visually detectable regulated pests, including Trogoderma granarium.
AND
− sourced from a “Pest free area” or “Pest free place of production”, free from Pea early browning virus, Peanut stunt virus and Xanthomonas campestris pv. alfalfa.

Phytosanitary Certificate Additional Declarations:
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 Medicago seeds for sowing in this consignment have been:
− inspected in accordance with appropriate official procedures and found to be free of Trogoderma granarium.
AND
− sourced from a “Pest free area” or “Pest free place of production”, free from Pea early browning virus, Peanut stunt virus and Xanthomonas campestris pv. alfalfa.

Genetically Modified Seed Testing:
MPI requires all consignments of Medicago sativa (alfalfa/lucerne) imported into New Zealand to be representatively sampled, tested, and found to be free of unapproved GM seeds. A seed testing certificate is required.

If consignments arrive at the New Zealand border without having been tested for the presence of unapproved GM seeds, MPI will offer the importer the options of re-shipping or destroying the consignment, or having the consignment sampled and tested as above at the importer’s expense.

Alternatively, the seeds must be sourced from companies with MPI approved quality assurance systems which demonstrate equivalence with PCR testing every consignment of GM Medicago
sativa.

Any consignment that is found to contain unapproved GM seeds will not be permitted to enter New Zealand and will be re-shipped or destroyed.

Complete guidelines for sampling and testing for the presence of GM seeds are specified in the Protocol for Testing Seed Imports for the Presence of Genetically Modified Seed. The protocol includes three further options for importers of small volumes of seed (defined as less than 100g for Medicago sativa) for cultivar trials and multiplication.

The protocol and a list of MPI-approved facilities for testing for the presence of GM material in Medicago sativa are located at the following address on the MPI website: http://www.biosecurity.govt.nz/regs/imports/plants/gmo

Testing may be conducted by facilities approved by MPI under the requirements specified in the Standard “Approval of Facilities for Genetically Modified Organism Testing”. If testing is conducted offshore, a copy of the completed test certificate (from a MPI-approved facility) must accompany the consignment imported into New Zealand. MPI will examine the test certificates on arrival to confirm that they reconcile with the actual consignment. Importers must ensure that MPI has access to all pertinent testing records held by MPI-approved testing facilities for audit purposes.
Nicotiana tabacum

The following entry conditions only apply to species in the Plants Biosecurity Index listed under Import Specifications for Seed as “see 155.02.05 under Nicotiana tabacum”.

Countries: All

Quarantine Pests: Peronospora tabacina

Entry Conditions:

OPTION 1:
Phytosanitary Certificate Additional Declarations:

"Peronospora tabacina is not known to occur in _____ (the country or state where the seed was produced) _____".

OR

(i) "The seed is from a crop that has been inspected during the growing season and no Peronospora tabacina was detected".
(ii) "The seed was treated with _____ (insert one of the options below) _____".

Note: One of the following fungicide combinations is to be used:

(i) metalaxyl at 0.7 g a.i. per kg seed and captan at 0.7 g a.i. per kg seed.
(ii) metalaxyl at 0.7 g a.i. per kg seed and thiram at 1 g a.i. per kg seed.

OPTION 2:
The seed is to be untreated before despatch and consigned to MPI-approved Seed Testing Station to test for Peronospora tabacina, at the expense of the importer.

(a) If the tests are negative the seed is to be treated with one of the following fungicide combinations before release to the importer:

(i) metalaxyl at 0.7 g a.i. per kg seed and captan at 0.7 g a.i. per kg seed.
(ii) metalaxyl at 0.7 g a.i. per kg seed and thiram at 1 g a.i. per kg seed.

(b) If the tests are positive the seed is to be reshipped or destroyed.

OPTION 3:
Permit to import: Required
PEQ: Level 3
Minimum Period: 1 growing season
**Oxyria**

The following entry conditions only apply to species in the Plants Biosecurity Index listed under Import Specifications for Seed as “see 155.02.05 under *Oxyria*”.

**Countries:** All

**Quarantine Pests:** *Ustilago vinosa*

**Phytosanitary Requirements:**

Before a phytosanitary certificate is issued, the NPPO of the exporting country must be satisfied that the following activities required by MPI have been undertaken. The *Oxyria* seeds for sowing have been:

- treated with one of the following fungicide combinations, either
  
  i) Carboxin at 0.8g a.i. per kg seed and thiram at 1g a.i. per kg seed.

  (ii) Carboxin at 0.8g a.i. per kg seed and captan at 0.7g a.i. per kg seed.

  (iii) Imazalil at 80mg a.i. per kg seed and triadimenol at 220mg a.i. per kg seed.

  (iv) Imazalil at 80mg a.i. per kg seed and flutriafol at 80mg a.i. per kg seed.

**Phytosanitary Certificate Additional Declaration:**

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.
The following entry conditions only apply to species in the Plants Biosecurity Index listed under Import Specifications for Seed as “see 155.02.05 under Panicum”.

Countries: All

Quarantine Pests: Peronosclerospora sorghi; Sclerospora graminicola; Trogoderma spp.; Ustilaginales

Phytosanitary Requirements:

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

The Panicum seeds for sowing have been:

− sourced from a “Pest free area” or “Pest free place of production”, free from
  Peronosclerospora sorghi and Sclerospora graminicola

AND

- treated with one of the following fungicide combinations, either
  i) Carboxin at 0.8g a.i. per kg seed and thiram at 1g a.i. per kg seed.
  (ii) Carboxin at 0.8g a. i. per kg seed and captan at 0.7g a.i. per kg seed.
  (iii) Imazalil at 80mg a.i. per kg seed and triadimenol at 220mg a.i. per kg seed.
  (iv) Imazalil at 80mg a.i. per kg seed and flutriafol at 80mg a.i. per kg seed.

Phytosanitary Certificate Additional Declarations:

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:

"Peronosclerospora sorghi and Sclerospora graminicola are not known to occur in _____ (the country or state where the seed was produced) ______ ".

OR

"The seed is from a crop that has been inspected during the growing season according to appropriate procedures and no Peronosclerospora sorghi or Sclerospora graminicola was detected".
Papaver somniferum

The following entry conditions only apply to species in the Plants Biosecurity Index listed under Import Specifications for Seed as “see 155.02.05 under Papaver somniferum”.

Countries: All

Entry Conditions:
Importers of *Papaver somniferum* seed must obtain written approval from the Ministry of Health prior to importation. Before applying for approval importers must provide a letter of declaration stating the intended use of the seed to:

Director, General of Health  
Ministry of Health  
P O Box 5013  
Wellington  
Attention: Advisor, Controlled Drug Licensing  
Telephone: 04 496 2018
The following entry conditions only apply to species in the Plants Biosecurity Index listed under Import Specifications for Seed as “see 155.02.05 under Persea”.

**Countries:** USA

**Quarantine Pests:** Avocado sunblotch viroid; Blackstreak

**Permit to import:** Required

**PEQ:** Level 3

**Minimum Period:** 1 growing season
The following entry conditions only apply to species in the Plants Biosecurity Index listed under Import Specifications for Seed as “see 155.02.05 under Phaseolus”.

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

Quarantine Pests: Refer to “Pest List for Phaseolus”.

Phytosanitary Requirements:
Before a phytosanitary certificate is issued, the NPPO of the exporting country must be satisfied that the following activities required by MPI have been undertaken.
The Phaseolus seeds for sowing have been:
- inspected in accordance with appropriate official procedures and found to be free of any visually detectable regulated pests, including the regulated insects on MPI’s “Pest List for Phaseolus” and seeds of regulated weed species.
AND
- sourced from a “Pest free area” or “Pest free place of production”, free from the named regulated bacteria (Curtobacterium flaccumfaciens pv. flaccumfaciens) and viruses (Artichoke yellow ringspot virus, Bean common mosaic virus [blackeye cowpea mosaic strain], Broad bean mottle virus, Cowpea severe mosaic virus, Pea early-browning virus, Peanut mottle virus, Peanut stunt virus, Southern bean mosaic virus, Tomato black ring virus).
AND
EITHER
- sourced from a “Pest free area” free from the named regulated fungi (Cochliobolus miyabeanus, Elsinoe phaseoli, Phoma exigua var. diversispora).
OR
- treated with one of the fungicide combinations described in MPI’s “Approved Treatments for Phaseolus”.

Phytosanitary Certificate Additional Declarations:
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 Phaseolus seeds for sowing in this consignment have been:
- sourced from a “Pest free area”, free from ______ (name of the regulated bacteria and viruses) ______, and/or
  a “Pest free place of production”, free from ______ (name of the regulated bacteria and viruses) ______.
  AND
- [if appropriate] sourced from a “Pest free area”, free from ______ (name of the regulated fungi) ______."
Approved Treatments:

One of the following treatments is required:

i) Metalaxyl-M at 0.35 g a.i per kg of seed, fludioxonil at 0.1 g a.i per kg of seed and cymoxanil 0.2 g a.i per kg of seed.

ii) Fosetyl aluminium at 1.53 g a.i per kg of seed, thiram at 0.5 g a.i per kg of seed and thiabendazole at 0.37 g a.i per kg of seed.

As required, MPI may evaluate other treatments and if effective, will approve these treatments and add them to this schedule.
Phoenix

The following entry conditions only apply to species in the Plants Biosecurity Index listed under Import Specifications for Seed as “see 155.02.05 under Phoenix”.

Countries: All countries except Guam, the Philippines and the Solomon Islands

Quarantine Pests: Coconut cadang-cadang viroid, Fusarium oxysporum f. sp. canariensis

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

The Phoenix seeds for sowing have:
– been inspected in accordance with appropriate official procedures and found to be free of any visually detectable regulated pests.

AND
– been produced in an approved country and have not been produced in Guam, the Philippines or the Solomon Islands.

If the consignment contains Phoenix canariensis, Phoenix dactylifera or Phoenix reclinata seeds for sowing, these seeds have:
– been produced in a “Pest free area”, free from Fusarium oxysporum f. sp. Canariensis.

Note: Seed covered in a fleshy pericarp will not be permitted entry into New Zealand.

Phytosanitary Certificate Additional Declarations:
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 Phoenix seeds for sowing in this consignment have:
– been produced in an approved country and have not been produced in Guam, the Philippines or the Solomon Islands.

If the consignment contains Phoenix canariensis, Phoenix dactylifera or Phoenix reclinata seeds for sowing, the following further additional declaration is also required:
"The Phoenix canariensis, Phoenix dactylifera or Phoenix reclinata seeds for sowing in this consignment have been produced in a “Pest free area”, free from Fusarium oxysporum f. sp. canariensis."
Pinus

The following entry conditions only apply to species in the Plants Biosecurity Index listed under Import Specifications for Seed as “see 155.02.05 under Pinus”.

Countries: All

Quarantine Pests: Refer to “Pest List for Pinus”.

Permit to import: Required only for seeds sourced from areas not known to be free from Fusarium circinatum

Phytosanitary Certificate Additional Declarations:
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 Pinus spp. seeds for sowing 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 the New Zealand Ministry for Primary Industries, and to conform with the current phytosanitary requirements of the New Zealand Ministry for Primary Industries."

AND

- "The Pinus spp. seeds for sowing in this consignment have been inspected in accordance with appropriate official procedures and found to be free of seeds from the prohibited plant species specified by the New Zealand Ministry for Primary Industries."

AND

- "The seed was from trees that have been officially inspected during the growing season according to appropriate procedures and no Dioryctria abietivorella or Conophthorus coniperda was detected".

OR

- "The seed in this consignment was inspected for evidence of the presence of insect pests and none was found".

AND

"The Pinus spp. seeds for sowing in this consignment have been treated prior to shipment with _______ (insert either Captan or Thiram) _______ at 2 g a.i. per kg seed, to eradicate any regulated pest(s) specified by the New Zealand Ministry for Primary Industries."

(Note: Treatment may occur on arrival in New Zealand at a registered Transitional Facility)

AND

For seeds sourced from areas listed below which are considered FREE from Fusarium circinatum (syn. Fusarium subglutinans f sp. pini) ONLY:
"The Pinus spp. seeds for sowing in this consignment have been sourced from pest free areas that are, as verified by pest surveillance methods, free from Fusarium circinatum (syn. Fusarium subglutinans f sp. pini)."
OR

For seeds sourced from areas not listed below (i.e. NOT known to be free from *Fusarium circinatum* (syn. *Fusarium subglutinans f sp. pini*):
The Importer must make prior arrangements for the consignment to undergo post entry quarantine at a registered Level 3 PEQ Facility. A Permit to Import is required.

A list of MPI approved pest free areas for *Fusarium circinatum* is provided on the MPI website: http://www.biosecurity.govt.nz/files/pests/pitch-canker/approved-pest-free-areas.pdf
No other countries/states/provinces are MPI approved pest free areas for *Fusarium circinatum*.

**Testing Requirements:**

MPI will determine, via the requirements on a permit to import, the testing required for *Pinus* spp. seeds for sowing for quarantine pests. The quarantine period will vary depending on the pests that may be associated with the commodity and the tests required.
The following entry conditions only apply to species in the Plants Biosecurity Index listed under Import Specifications for Seed as “see 155.02.05 under Pisum”.

Countries: Australia, Austria, Belgium, Canada, Czech Republic, Denmark, Finland, France, Germany, Greece, Hungary, Ireland, Italy, Luxembourg, The Netherlands, Portugal, Spain, Sweden, Taiwan, United Kingdom and United States of America.

Quarantine Pests: Refer to “Pest List for Pisum”.

Phytosanitary Requirements:

Before a phytosanitary certificate is issued, the NPPO of the exporting country must be satisfied that the following activities required by MPI have been undertaken.
The Pisum seeds for sowing have been:
- inspected in accordance with appropriate official procedures and found to be free of any visually detectable regulated pests, including the regulated insects on MPI’s “Pest List for Pisum” and seeds of regulated weed species.
AND
- sourced from a “Pest free area” or “Pest free place of production”, free from the named regulated viruses (Broad bean mottle virus, Broad bean stain virus, Clover yellow mosaic virus, Pea early-browning virus, Pea enation mosaic virus, Peanut mottle virus, Peanut stunt virus).
AND
EITHER
- sourced from a “Pest free area” free from Cladosporium cladosporioides f. sp. pisicola.
OR
- treated with one of the fungicide combinations described in MPI’s “Approved Treatments for Pisum”.

Phytosanitary Certificate Additional Declarations:

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 Pisum seeds for sowing in this consignment have:
- sourced from a “Pest free area”, free from _____ (name of the regulated viruses) _____, and/or a “Pest free place of production”, free from _____ (name of the regulated viruses) _____.
AND
- [if appropriate] sourced from a “Pest free area”, free from Cladosporium cladosporioides f. sp. pisicola.

Testing on arrival in New Zealand:
For lots of pea seed over 2kg, a small sample of pea seeds (approx 100 grams per lot) will be taken and soaked with water on arrival to verify that the seed is free from any regulated pests (e.g. pea weevil larvae).

Note: Small samples of pea seed (<2kg) for research purposes do not require the soak test but still require dry inspection.

Approved Treatments:

One of the following treatments is required:

i) Metalaxyl-M at 0.35 g a.i per kg of seed, fludioxonil at 0.1 g a.i per kg of seed and cymoxanil 0.2 g a.i per kg of seed.

ii) Fosetyl aluminium at 1.53 g a.i per kg of seed, thiram at 0.5 g a.i per kg of seed and thiabendazole at 0.37 g a.i per kg of seed.

iii) Metalaxyl-M at 0.35 g a.i per kg of seed, fludioxonil at 0.1 g a.i per kg of seed and cymoxanil 0.2 g a.i per kg of seed.

As required, MPI may evaluate other treatments and if effective, will approve these treatments and add them to this schedule.
The following entry conditions only apply to species in the Plants Biosecurity Index listed under Import Specifications for Seed as “see 155.02.05 under *Populus*”.

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

**Quarantine Pests:** *Marssonina* spp.

**Permit to import:** Required

**PEQ:** Level 2 and Level 1

**Minimum Period:** 2 growing seasons as follows:
- in a Level 2 quarantine facility for the first season
- in a Level 1 quarantine facility subsequently

**Isolation:** 50m when planted outside
Prunus

The following entry conditions only apply to species in the Plants Biosecurity Index listed under Import Specifications for Seed as “see 155.02.05 under Prunus”.

Countries: All

Quarantine Pests: Eurytoma amygdali; Cherry leaf roll virus [strains not in New Zealand]; Cherry rasp leaf virus; Prune dwarf virus [strains not in New Zealand]; Prunus necrotic ringspot virus [strains not in New Zealand]; Plum pox virus; Tomato bushy stunt virus.

Permit to import: Required

PEQ: Level 3
Minimum Period: 6 months

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

The Prunus seeds for sowing have been
– inspected in accordance with appropriate official procedures and found to be free of any visually detectable regulated pests, including Eurytoma amygdali.

Phytosanitary Certificate Additional Declaration:
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 Prunus seeds for sowing in this consignment have been inspected in accordance with appropriate official procedures and found to be free of Eurytoma amygdali."

Inspection, Testing and Treatment Requirements:

<table>
<thead>
<tr>
<th>ORGANISM TYPES</th>
<th>MPI ACCEPTABLE METHODS (See notes below)</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fungi</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Monilinia fructigena</td>
<td>Growing season inspection in PEQ for disease symptom expression.</td>
<td></td>
</tr>
<tr>
<td>Virus</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cherry leaf roll virus</td>
<td>ELISA (Agdia) or PCR AND herbaceous indicators Cq, Cs.</td>
<td></td>
</tr>
<tr>
<td>Cherry rasp leaf virus</td>
<td>ELISA or PCR using the method of James et al. (1991) AND</td>
<td></td>
</tr>
<tr>
<td>Herbaceous Indicators</td>
<td>Plum pox virus</td>
<td>Prunus necrotic ringspot virus</td>
</tr>
<tr>
<td>-----------------------</td>
<td>----------------</td>
<td>--------------------------------</td>
</tr>
<tr>
<td>Herbaceous indicators Cq, Cs.</td>
<td>Durviz ELISA (Agdia) or PCR using the method of Wetzel et al. (1991) AND herbaceous indicators Nc and Cf.</td>
<td>ELISA (Agdia) or PCR using the method of Spiegel et al. (1996) AND herbaceous indicators Cs.</td>
</tr>
</tbody>
</table>

**Notes:**

1. Indicator hosts: *Chenopodium foetidum* (Cf), *Chenopodium quinoa* (Cq), *Cucumis sativus* (Cs) and *Nicotiana clevelandii* (Nc).
2. Enzyme linked immunosorbent assay (ELISA).
3. Polymerase chain reaction (PCR).
4. With prior notification, MPI will accept other internationally recognised testing methods.
5. For bioassay and ELISA, plants shall 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.
6. Indicator plants must be grown under appropriate temperatures.
7. Indicator plants must be shaded for 12-24 hrs prior to inoculation.
8. Maintain post-inoculated indicator species under appropriate glasshouse conditions for at least 4 weeks.
9. Inspect plants at least once per week for signs of pest and disease.
10. Inspect inoculated herbaceous indicator plants at least twice per week for symptoms of virus infection.
11. At least two plants of each indicator species unless otherwise stated must be used in mechanical inoculation tests.
12. Positive and negative controls must be used in ELISA tests.
13. Testing must be carried out on plants while they are in active growth.
14. 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.
15. ELISA or PCR for PPV must test negative before herbaceous indicator tests are conducted.

**References**

James D, Howell WE, Mink GI, 2001. Molecular evidence of the relationship between a virus associated with flat apple disease and *Cherry rasp leaf virus* as determined by RT-PCR. *Plant Disease* 85, 47-52.


The following entry conditions only apply to species in the Plants Biosecurity Index listed under Import Specifications for Seed as “see 155.02.05 under Pseudotsuga menziesii”.

Countries: All

Quarantine Pests: Refer to “Pest List for Pseudotsuga menziesii”.

Permit to import: Required only for seeds sourced from areas not known to be free from *Fusarium circinatum*

**Phytosanitary Certificate Additional Declarations:**

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 *Pseudotsuga menziesii* seeds for sowing 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 the New Zealand Ministry for Primary Industries, and to conform with the current phytosanitary requirements of the New Zealand Ministry for Primary Industries."

AND

- "The *Pseudotsuga menziesii* seeds for sowing in this consignment have been inspected in accordance with appropriate official procedures and found to be free of seeds from the prohibited plant species specified by the New Zealand Ministry for Primary Industries."

AND

- "The seed was from trees that have been officially inspected during the growing season according to appropriate procedures and no *Dioryctria abietivorella* was detected".

OR

- "The seed in this consignment was inspected for evidence of the presence of insect pests and none was found".

AND

"The *Pseudotsuga menziesii* seeds for sowing in this consignment have been treated prior to shipment with ______ (insert either Captan or Thiram) _____ at 2 g a.i. per kg seed, to eradicate any regulated pest(s) specified by the New Zealand Ministry for Primary Industries."

(Note: Treatment may occur on arrival in New Zealand at a registered Transitional Facility)

AND

**For seeds sourced from areas listed below which are considered FREE of *Fusarium circinatum* (syn. *Fusarium subglutinans f sp. pini*) ONLY:**

"The *Pseudotsuga menziesii* seeds for sowing in this consignment have been sourced from pest free areas that are, as verified by pest surveillance methods, free from *Fusarium circinatum* (syn. *Fusarium subglutinans f sp. pini*)"
OR

For seeds sourced from areas not listed below (i.e. NOT known to be free of *Fusarium circinatum* (syn. *Fusarium subglutinans* f sp. *pini*):

The Importer must make prior arrangements for the consignment to undergo post entry quarantine at a registered Level 3 PEQ Facility. A Permit to Import is required.


No other countries/states/provinces are MPI approved pest free areas for *Fusarium circinatum*.

**Testing Requirements:**

MPI will determine, via the requirements on a permit to import, the testing required for *Pseudotsuga menziesii* seeds for sowing for quarantine pests. The quarantine period will vary depending on the pests that may be associated with the commodity and the tests required.
Psophocarpus

The following entry conditions only apply to species in the Plants Biosecurity Index listed under Import Specifications for Seed as “see 155.02.05 under Psophocarpus”.

Countries: All

Quarantine Pests: Etiella spp.; Maruca testulalis; Trogoderma spp.

For Seed in Pods ONLY:

Phytosanitary Certificate Additional Declaration:

"The pods were inspected before export and no caterpillars of Etiella spp. or Maruca testulalis were found in a 600 unit sample".
Pyrus

The following entry conditions only apply to species in the Plants Biosecurity Index listed under Import Specifications for Seed as “see 155.02.05 under Pyrus”.

Countries: All
Quarantine Pests: *Apple scar skin viroid; Monilinia fructigena; Tomato bushy stunt virus;* Pear bark measles.

Permit to import: Required
PEQ: Level 3
Minimum Period: 6 months

Phytosanitary Requirements:
Before a phytosanitary certificate is issued, the NPPO of the exporting country must be satisfied that the following activities required by MPI have been undertaken.
The *Pyrus* seeds for sowing have been:
– inspected in accordance with appropriate official procedures and found to be free of the regulated pests (including regulated weed species) specified by MPI.

**Inspection, Testing and Treatment requirements:**

<table>
<thead>
<tr>
<th>ORGANISM TYPES</th>
<th>MPI ACCEPTABLE METHODS (See notes below)</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fungi</td>
<td></td>
<td></td>
</tr>
<tr>
<td><em>Monilinia fructigena</em></td>
<td>Growing season inspection in PEQ for disease symptom expression.</td>
<td></td>
</tr>
<tr>
<td>Viroid</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Virus</td>
<td></td>
<td></td>
</tr>
<tr>
<td><em>Tomato bushy stunt virus</em></td>
<td>ELISA (Agdia) or PCR AND herbaceous indicators Cq, Nc.</td>
<td></td>
</tr>
<tr>
<td>Unknown etiology</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pear bark measles</td>
<td>Growing season inspection in PEQ for disease expression.</td>
<td></td>
</tr>
</tbody>
</table>

**Notes:**
1. Indicator hosts: *Chenopodium quinoa* (Cq), and *Nicotiana clevelandi* (Nc).
2. Enzyme linked immunosorbent assay (ELISA).
3. Polymerase chain reaction (PCR).
4. With prior notification, MPI will accept other internationally recognised testing methods.
5. For bioassay and ELISA, plants shall 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.
6. Indicator plants must be grown under appropriate temperatures.
7. Indicator plants must be shaded for 12-24 hrs prior to inoculation.
8. Maintain post-inoculated indicator species under appropriate glasshouse conditions for at least 4 weeks.
9. Inspect plants at least once per week for signs of pest and disease.
10. Inspect inoculated herbaceous indicator plants at least twice per week for symptoms of virus infection.
11. PCR and ELISA need to be validated using positive controls/reference material prior to use in quarantine testing.
12. At least two plants of each indicator species unless otherwise stated must be used in mechanical inoculation tests.
13. Positive and negative controls must be used in ELISA tests.
14. Testing must be carried out on plants while they are in active growth.
15. 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.

**Reference**
The following entry conditions only apply to species in the Plants Biosecurity Index listed under Import Specifications for Seed as “see 155.02.05 under Quercus”.

**Countries:** Australia, Canada, Germany, India, Israel, Japan, Mexico, Spain, Tunisia, UK, USA

**Quarantine Pests:** *Ceratocystis fagacearum; Cryphonectria parasitica; Curculionidae*

**Permit to import:** Required

**PEQ:** Level 3  
**Minimum Period:** 2 years  
**Isolation:** 50m

**Phytosanitary Certificate Additional Declarations:**

"*Ceratocystis fagacearum* and *Cryphonectria parasitica* are not known to occur in _____ (the country or state where the seed was produced) _____".

OR

"The seed has been taken from trees that have been officially inspected during active growth and no diseases caused by *Ceratocystis fagacearum* or *Cryphonectria parasitica* were detected".

AND

"The seed was fumigated with methyl bromide at ___ pressure for ___ hours at ___ g/m³ at a temperature of ___ °C."

**Note:** The pressure/time/rate temperature combination used is to be in accordance with the following scale:

<table>
<thead>
<tr>
<th>Temperature</th>
<th>Rate (g/m³)</th>
<th>Time (hours)</th>
<th>Pressure</th>
</tr>
</thead>
<tbody>
<tr>
<td>15 - 21°C</td>
<td>32</td>
<td>12</td>
<td>atmospheric</td>
</tr>
<tr>
<td>21°C or above</td>
<td>16</td>
<td>12</td>
<td>atmospheric</td>
</tr>
<tr>
<td>15 - 21°C</td>
<td>48</td>
<td>1.5</td>
<td>91 kpa vacuum</td>
</tr>
<tr>
<td>21°C or above</td>
<td>48</td>
<td>1.0</td>
<td>91 kpa vacuum</td>
</tr>
</tbody>
</table>
### Inspection and testing requirements:

<table>
<thead>
<tr>
<th>ORGANISM</th>
<th>MPI ACCEPTABLE METHOD</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Fungi</strong></td>
<td></td>
</tr>
<tr>
<td>Ceratocystis fagacearum</td>
<td>Growing season inspection in PEQ for disease symptom expression.</td>
</tr>
<tr>
<td>Cryphonectria parasitica</td>
<td>Growing season inspection in PEQ for disease symptom expression.</td>
</tr>
</tbody>
</table>
Ribes

The following entry conditions only apply to species in the Plants Biosecurity Index listed under Import Specifications for Seed as “see 155.02.05 under Ribes”.

Countries: All

Quarantine Pests: Refer to “Pest List for Ribes”

Permit to import: Required

PEQ: Level 3
Minimum Period: 6 months

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

The Ribes seeds for sowing have been:
- inspected in accordance with appropriate official procedures and found to be free of any visually detectable regulated pests.

Inspection, Testing and Treatment Requirements:

<table>
<thead>
<tr>
<th>ORGANISM TYPES</th>
<th>NZ MPI ACCEPTABLE METHODS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Virus</td>
<td>(See notes below)</td>
</tr>
<tr>
<td>both ‘Currant type’ and ‘Gooseberry type’ Ribes)</td>
<td></td>
</tr>
<tr>
<td>Raspberry ringspot virus</td>
<td>ELISA or PCR and herbaceous indexing with Ca and Cq OR Cq, Cs and Nc</td>
</tr>
<tr>
<td>‘Currant type’ Ribes only</td>
<td></td>
</tr>
<tr>
<td>Tobacco rattle virus (strains not in New Zealand)</td>
<td>Herbaceous indexing with Ca and Cq OR Cq, Cs and Nc</td>
</tr>
<tr>
<td>Tomato black ring virus</td>
<td>ELISA and herbaceous indexing with Ca and Cq OR Cq, Cs and Nc</td>
</tr>
</tbody>
</table>

Key: Ca - Chenopodium amaranticolor     Cq – Chenopodium quinoa
     Cs – Cucumis sativus                Nc – Nicotiana clevelandii
     ELISA - Enzyme linked immunosorbent assay
     PCR - Polymerase chain reaction

Notes:
1. Tests are to be carried out on plants germinated from the imported seeds.
2. The unit for testing is an individual seedling unless evidence is supplied by the exporting
NPPO that seeds have been derived from the same mother plant. Bulking of up to 5 seedlings derived from the same mother plant, for ELISA or PCR testing, is acceptable. Samples must be tested individually by herbaceous indexing.

3. Testing must be carried out on plants while they are in active growth.
4. Indicator plants must be grown under appropriate temperatures.
5. Indicator plants must be shaded for 12-24 hrs prior to inoculation.
6. For each *Ribes* plant, at least two fully-expanded leaves must be sampled from different branches of the main stem, one a younger leaf and one an older leaf.
7. Post-inoculated indicator plants must be maintained under appropriate glasshouse conditions for at least 4 weeks.
8. Post-inoculated indicator plants must be inspected at least twice per week for signs of virus infection with observations being recorded on a weekly basis.
9. PCR and ELISA need to be validated using positive controls/reference material prior to use in quarantine testing.
10. Positive, negative, and buffer controls must be used in ELISA tests.
11. Positive controls must be used in PCR.
12. Inspection of the Ribes plants by the operator of the PEQ facility for signs of pest and disease must be at least once per week.
13. Other internationally recognised testing methods may be accepted by MPI with prior notification.

References


Rubus idaeus

The following entry conditions only apply to species in the Plants Biosecurity Index listed under Import Specifications for Seed as “see 155.02.05 under Rubus idaeus”.

Countries: All

Quarantine Pests: Tomato black ring virus; Tomato ringspot virus.

Permit to import: Required

PEQ: Level 3
Minimum Period: 1 growing season
Sesamum

The following entry conditions only apply to species in the Plants Biosecurity Index listed under Import Specifications for Seed as “see 155.02.05 under Sesamum”.

Countries: All

Quarantine Pests: Alternaria sesami; Cercoseptoria sesami; Xanthomonas campestris pv. sesami; Trogoderma spp.

Phytosanitary Requirements:
Before a phytosanitary certificate is issued, the NPPO of the exporting country must be satisfied that the following activities required by MPI have been undertaken.
The Sesamum seeds for sowing have been:
− sourced from a “Pest free area” or “Pest free place of production”, free from Alternaria sesami, Cercoseptoria sesami and Xanthomonas campestris pv. sesami
AND
− treated with Iprodione at 2.5g a.i. per kg of seed.

Phytosanitary Certificate Additional Declarations:
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:

"Alternaria sesami, Cercoseptoria sesami and Xanthomonas campestris pv. sesami are not known to occur in ______(the country or state where the seed was produced) ______".

OR

"The seed is from a crop that has been inspected during the growing season according to appropriate procedures and no Alternaria sesami, Cercoseptoria sesami or Xanthomonas campestris pv. sesami was detected".
Solanum tuberosum

The following entry conditions only apply to species in the Plants Biosecurity Index listed under Import Specifications for Seed as “see 155.02.05 under Solanum tuberosum”.

Countries: All

Quarantine Pests: Andean potato latent virus; Potato black ring virus; Potato spindle tuber viroid; Potato virus T; Tobacco ringspot virus

Permit to import: Required

PEQ: Level 3
Minimum Period: 1 growing season
**Sorghum**

The following entry conditions only apply to species in the Plants Biosecurity Index listed under Import Specifications for Seed as “see 155.02.05 under Sorghum”.

**Countries:** Australia, USA

**Quarantine Pests:** *Peronosclerospora sorghi; Sclerospora graminicola; Trogoderma* spp.; Ustilaginales

**Phytosanitary Requirements:**

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

The *Sorghum* seeds for sowing have been:

- sourced from a “Pest free area” or “Pest free place of production”, free from *Peronosclerospora sorghi* and *Sclerospora graminicola*

AND

- treated with one of the following fungicide combinations, either
  - (i) Carboxin at 0.8g a.i. per kg seed and thiram at 1g a.i. per kg seed.
  - (ii) Carboxin at 0.8g a.i. per kg seed and captan at 0.7g a.i. per kg seed.
  - (iii) Imazalil at 80mg a.i. per kg seed and triadimenol at 220mg a.i. per kg seed.
  - (iv) Imazalil at 80mg a.i. per kg seed and flutriafol at 80mg a.i. per kg seed.

**Phytosanitary Certificate Additional Declarations:**

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:

"*Peronosclerospora sorghi* and *Sclerospora graminicola* are not known to occur in _____ (the country or state where the seed was produced) _____".

OR

"The seed is from a crop that has been inspected during the growing season and no *Peronosclerospora sorghi* or *Sclerospora graminicola* was detected".
The following entry conditions only apply to species in the Plants Biosecurity Index listed under Import Specifications for Seed as “see 155.02.05 under *Stenotaphrum*”.

**Countries:** All

**Quarantine Pests:** Panicum mosiac virus

**Permit to import:** Required

**PEQ:** Level 3

**Minimum Period:** 1 growing season
**Trigonella foenum-graecum**

The following entry conditions only apply to species in the Plants Biosecurity Index listed under Import Specifications for Seed as “see 155.02.05 under *Trigonella foenum-graecum*”.

**Countries:** All

**Quarantine Pests:** *Cercosporidium traversiana; Trogoderma* spp.

**Phytosanitary Requirements:**

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

The *Trigonella foenum-graecum* seeds for sowing have been:

- sourced from a “Pest free area” or “Pest free place of production”, free from *Cercosporidium traversiana*

AND

- treated with one of the following fungicide combinations, either
  
  i) Benomyl at 2.5 g a.i. per kg seed
  
  ii) Carbendazim at 2.5 g a.i. per kg seed
  
  iii) Thiophanate methyl at 2.5 a.i. per kg seed

**Phytosanitary Certificate Additional Declarations:**

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:

"*Cercosporidium traversiana* is not known to occur in _____ (the country or state where the seed was produced) _____ ".

OR

"The seed is from a crop that has been inspected during the growing season according to appropriate procedures and no *Cercosporidium traversiana* was detected".


Triticum

The following entry conditions only apply to species in the Plants Biosecurity Index listed under Import Specifications for Seed as “see 155.02.05 under Triticum”.

Countries: Australia, Austria, Belgium, Canada, Czech Republic, Denmark, Finland, France, Germany, Greece, Hungary, Ireland, Italy, Luxembourg, The Netherlands, Norway, Portugal, Spain, Sweden, Switzerland, United Kingdom and United States of America.

Quarantine Pests: Refer to “Pest List for Triticum”.

Phytosanitary Requirements:

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

The Triticum seeds for sowing have been:
- inspected in accordance with appropriate official procedures and found to be free of any visually detectable regulated pests, including the regulated insects and mites on MPI’s “Pest List for Triticum” and seeds of regulated weed species.

AND

- sourced from a “Pest free area” or “Pest free place of production”, free from the named regulated bacteria (*Rathayibacter tritici*, *Xanthomonas campestris* pv. *undulosa*) and viruses (*High plains virus*, *Indian peanut clump virus*).

AND

- sourced from a “Pest free area” or “Pest free place of production”, free from *Anguina tritici*, or inspected microscopically for *Anguina tritici* in accordance with appropriate official procedures.

AND

EITHER

- sourced from a “Pest free area” free from the named regulated fungi (*Alternaria triticina*, *Cephalosporium gramineum*, *Curvularia verruculosa*).

OR

- treated with one of the fungicide combinations described in MPI’s “Approved Treatments for Triticum”;

AND

EITHER

- sourced from a “Pest free area” free from *Tilletia controversa* and *Tilletia indica*, OR

- sourced from a “Pest free place of production”, free from *Tilletia controversa* and *Tilletia indica*, **AND treated** with one of the fungicide combinations described in MPI’s “Approved Treatments for Triticum”. OR

- a representative sample of 600 seeds, drawn from this consignment according to the International Seed Testing Association’s methodology, has been tested for *Tilletia controversa* and *Tilletia indica*, **AND treated** with one of the fungicide combinations described in MPI’s “Approved Treatments for Triticum”.


Phytosanitary Certificate Additional Declarations:

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 Triticum seeds for sowing in this consignment have been:
- sourced from a “Pest free area”, free from ______ (name of the above regulated bacteria and viruses) ______, and/or a “Pest free place of production”, free from ______ (name of the above regulated bacteria and viruses) ______.

AND
- sourced from a “Pest free area” , free from Anguina tritici, OR “Pest free place of production”, free from Anguina tritici, OR inspected microscopically for Anguina tritici.

AND
- sourced from a “Pest free area”, free from ______ (name of the above regulated fungi) ______;

AND
  EITHER [choose ONE option]
- sourced from a “Pest free area” free from Tilletia controversa and Tilletia indica, OR
- sourced from a “Pest free place of production”, free from Tilletia controversa and Tilletia indica, OR
- No spores of Tilletia controversa or Tilletia indica were found in a representative sample of 600 seeds drawn from this consignment."

Approved Treatments:

Fungicides
One of the following treatments is required:

i) Carboxin at 0.8 g a.i. per kg of seed and Thiram at 0.8 g a.i. per k.g of seed.

ii) Flutriafol at 0.05 g a.i. per kg of seed and Imazalil at 0.05 g a.i. per kg of seed.

iii) Triadimenol at 0.375 g a.i. per kg of seed and Fuberidazole 0.15g a.i per kg of seed.

iv) Triadimenol at 0.23 g a.i. per kg of seed, Imazalil 0.075 g per kg of seed and Fuberidazole 0.15g a.i per kg of seed.

v) Tebuconazole at 0.025 g a.i. per kg of seed and Imazalil at 0.05 g a.i. per kg of seed.

As required, MPI may evaluate other treatments and if effective, will approve these treatments and add them to this schedule.
The following entry conditions only apply to species in the Plants Biosecurity Index listed under Import Specifications for Seed as “see 155.02.05 under *Ulmus*”.

**Countries:** All

**Quarantine Pests:** Cherry leaf roll virus; Elm mottle virus

**Phytosanitary Certificate Additional Declarations:**

"Cherry leaf roll virus and Elm mottle virus are not known to occur in _____ (the country or state where the seed was produced) _____".

**OR**

"The trees from which the seed was harvested were officially inspected during the growing season and no Cherry leaf roll virus or Elm mottle virus was detected".
Vaccinium

The following entry conditions only apply to species in the Plants Biosecurity Index listed under Import Specifications for Seed as “see 155.02.05 under Vaccinium”.

Countries: All

Quarantine Pests: Refer to “Pest List for Vaccinium”

Permit to import: Required.

PEQ: Level 3
Minimum Period: 6 months

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

The Vaccinium seeds for sowing have been
– inspected in accordance with appropriate official procedures and found to be free of the regulated pests.

Inspection, Testing and Treatment requirements:

<table>
<thead>
<tr>
<th>ORGANISM TYPES</th>
<th>MPI ACCEPTABLE METHODS</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Fungi</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Diaporthe vaccinii</td>
<td>Growing season inspection in PEQ for disease symptom expression.</td>
<td></td>
</tr>
<tr>
<td>Botryosphaeria vaccinii</td>
<td>Growing season inspection in PEQ for disease symptom expression.</td>
<td></td>
</tr>
<tr>
<td>Monilinia fructigena</td>
<td>Growing season inspection in PEQ for disease symptom expression.</td>
<td></td>
</tr>
<tr>
<td>Monilinia vaccinii-corymbosi</td>
<td>Growing season inspection in PEQ for disease symptom expression.</td>
<td></td>
</tr>
<tr>
<td><strong>Virus</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Blueberry shock virus</td>
<td>ELISA (Agdia) or PCR AND herbaceous indicators Nb, Nc.</td>
<td></td>
</tr>
<tr>
<td>Blueberry leaf mottle virus</td>
<td>ELISA (Agdia) or PCR AND herbaceous indicators Cq, Nc.</td>
<td></td>
</tr>
<tr>
<td>Peach rosette mosaic virus</td>
<td>ELISA (Agdia) or PCR AND herbaceous indicators Ca, Cq.</td>
<td></td>
</tr>
<tr>
<td>Tomato ringspot virus</td>
<td>ELISA (Agdia) or PCR AND herbaceous indicators Cq, Nc.</td>
<td></td>
</tr>
</tbody>
</table>

Notes:
1. Indicator hosts: Chenopodium amaranticolor (Ca), C. quinoa (Cq), and Nicotiana
2. Enzyme linked immunosorbent assay (ELISA).
3. Polymerase chain reaction (PCR).
4. With prior notification, MPI will accept other internationally recognised testing methods.
5. For bioassay and ELISA, plants shall 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.
6. Indicator plants must be grown under appropriate temperatures.
7. Indicator plants must be shaded for 12-24 hrs prior to inoculation.
8. Maintain post-inoculated indicator species under appropriate glasshouse conditions for at least 4 weeks.
9. Inspect plants at least once per week for signs of pest and disease.
10. Inspect inoculated herbaceous indicator plants at least twice per week for symptoms of virus infection.
11. PCR and ELISA need to be validated using positive controls/reference material prior to use in quarantine testing.
12. At least two plants of each indicator species unless otherwise stated must be used in mechanical inoculation tests.
13. Positive and negative controls must be used in ELISA tests.
14. Testing must be carried out on plants while they are in active growth.
   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.
The following entry conditions only apply to species in the Plants Biosecurity Index listed under Import Specifications for Seed as “see 155.02.05 under *Vicia*”.

**Countries:** Australia, Austria, Belgium, Canada, Czech Republic, Denmark, Finland, France, Germany, Greece, Ireland, Italy, Luxembourg, The Netherlands, Portugal, Spain, Sweden, United Kingdom and United States of America.

**Quarantine Pests:** Refer to “*Pest List for Vicia*”

**Permit to import:** Not required.

**Phytosanitary requirements:**

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

The *Vicia* seeds for sowing have been:

- inspected in accordance with appropriate official procedures and found to be free of any visually detectable regulated pests, the regulated insects on MPI’s “Pest List for *Vicia*” and seeds of regulated weed species.

AND

- sourced from a “Pest free area” or “Pest free place of production”, free from the named regulated viruses (*Artichoke yellow ringspot virus, Broad bean mottle virus, Broad bean stain virus, Broad bean true mosaic virus, Clover yellow mosaic virus, Pea early-browning virus, Pea enation mosaic virus, Peanut stunt virus, Red clover vein mosaic virus*).

**Phytosanitary Certificate Additional Declarations:**

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 *Vicia* seeds for sowing in this consignment have been:

- sourced from a “Pest free area”, free from ____ (name of the regulated viruses) ____ , and/or a “Pest free place of production”, free from ____ (name of the regulated viruses) ____.

**Approved Treatments:**

**Fungicides**

One of the following treatments is required:

i) Metalaxyl-M at 0.35 g a.i per kg of seed, fludioxonil at 0.1 g a.i per kg of seed and cymoxanil 0.2 g a.i per kg of seed.

ii) Fosetyl aluminium at 1.53 g a.i per kg of seed, thiram at 0.5 g a.i per kg of seed and thiabendazole at 0.37 g a.i per kg of seed.

As required, MPI may evaluate other treatments and if effective, will approve these treatments and add them to this schedule.
Vigna

The following entry conditions only apply to species in the Plants Biosecurity Index listed under Import Specifications for Seed as “see 155.02.05 under Vigna”.

Countries: All

Quarantine Pests: Curtobacterium flaccumfaciens pv. faccumfaciens; Xanthomonas campestris pv. vignicola; Earias vitella; Maruca testulalis; Trogoderma spp.

Phytosanitary Certificate Additional Declarations:

(a) "Curtobacterium flaccumfaciens pv. faccumfaciens and Xanthomonas campestris pv. vignicola are not known to occur in ______ (the country or state where the seed was produced) ______".

OR

"The seed is from a crop that has been inspected during the growing season according to appropriate procedures and no Curtobacterium flaccumfaciens pv. faccumfaciens or Xanthomonas campestris pv. vignicola was detected".

(b) For seed in pods:

"The pods were inspected before export and no caterpillars of Earias vitella or Maruca testulalis were found in a 600 unit sample".
The following entry conditions only apply to species in the Plants Biosecurity Index listed under Import Specifications for Seed as “see 155.02.05 under Zea”.

Countries: Australia, Austria, Canada, Chile, Finland, France, Germany, Greece, Hungary, Japan, the Netherlands, Norway, South Africa, Sweden, Switzerland, the United Kingdom and United States of America

Quarantine Pests: Refer to “Pest List for Zea”

Permit to import: Permit not required, unless seeds are to be grown in PEQ.

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

The Zea mays seeds for sowing have been:
- inspected in accordance with appropriate official procedures and found to be free of any visually detectable regulated pests, including the regulated insects, mites and weed seeds on MPI’s “Pest List for Zea mays”.
  AND
- sourced from a “Pest free area” or “Pest free place of production”, free from the named regulated bacteria (Acidovorax avenae subsp. avenae, Clavibacter michiganensis subsp. nebraskensis, Pantoea stewartii subsp. stewartii) and viruses (High plains virus, Maize dwarf mosaic virus, Maize mottle chlorotic stunt virus).
  OR
  - a representative sample, officially drawn from this consignment according to ISTA or AOSA methodology, has been tested for the presence of the named regulated bacteria (Acidovorax avenae subsp. avenae, Clavibacter michiganensis subsp. nebraskensis, Pantoea stewartii subsp. stewartii) and viruses (High plains virus, Maize dwarf mosaic virus, Maize chlorotic mottle virus). The testing and treatment requirements are specified following this section.
  AND
- sourced from a “Pest free area” free from the named regulated fungi (Botryosphaeria zeae, Cochliobolus pallescens, Cochliobolus tuberculatus, Claviceps gigantea, Gloeocercospora sorghii, Ustilago maydis, Peronosclerospora heteropogoni, Peronosclerospora maydis, Peronosclerospora philippinensis, Peronosclerospora sacchari, Peronosclerospora sorghi, Phaeocytostroma ambiguum, Sclerotophthora rayssiae var. zeae, Rhizopus maydis, Stenocarpella macrospora and Cephalosporium maydis).
  OR
- treated with one of the fungicide combinations described in MPI’s “Approved Treatments for Zea mays”;

Phytosanitary Certificate Additional Declarations:
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 declarations to the phytosanitary certificate:

"The *Zea mays* seeds for sowing in this consignment have been:
- sourced from a “Pest free area”, free from _____ (name of the regulated bacteria and viruses) _____, and/or a “Pest free place of production”, free from _____ (name of the regulated bacteria and viruses) _____ and/or _____ (name of the regulated bacteria and viruses) _____ was not detected in a representative sample of seeds officially drawn from this consignment.

AND
- [If appropriate] sourced from a “Pest free area”, free from _____ (name of the regulated fungi) _____;

Genetically Modified Seed Testing:

MPI requires that all consignments of dent corn/field corn/maize (*Zea mays* var. *indentata*) and sweet corn (*Zea mays* var. *saccharata*) that are imported into New Zealand are tested for adventitious presence of unapproved GM seeds. A seed testing certificate is required.

**Note:** For positive identification of imported consignments that do not require a GM seed test certificate, the full scientific name of the *Zea* species and variety (including variety or sub-species name) must be specified on the phytosanitary certificate, for e.g. *Zea mays* var. *everta* (pop corn). Importers of consignments of *Zea mays* that are not identified appropriately will be offered the options of testing for the presence of unapproved genetically modified (GM) seeds, re-shipment or destruction.

If consignments arrive at the New Zealand border without having been tested for the presence of unapproved GM seeds, MPI will offer the importer the options of re-shipping or destroying the consignment, or having the consignment sampled and tested as above at the importer’s expense.

Alternatively, the seeds must be sourced from companies with MPI approved quality assurance systems which demonstrate equivalence with PCR testing every consignment of GM *Zea mays*.

Any consignment that is found to contain unapproved GM seeds will not be permitted to enter New Zealand and will be re-shipped or destroyed.

Complete guidelines for sampling and testing for the presence of GM seeds are specified in the *Protocol for Testing Seed Imports for the Presence of Genetically Modified Seed*. The protocol includes three further options for importers of small volumes of seed (defined as less than 100g for *Zea mays*) for cultivar trials and multiplication.

The protocol and a list of MPI-approved facilities for testing for the presence of GM material in *Zea mays* are located at the following address on the MPI website: [http://www.biosecurity.govt.nz/regs/imports/plants/gmo](http://www.biosecurity.govt.nz/regs/imports/plants/gmo)

Testing may be conducted by facilities approved by MPI under the requirements specified in the Standard “Approval of Facilities for Genetically Modified Organism Testing”. If testing is conducted offshore, a copy of the completed test certificate (from a MPI-approved facility) must accompany the consignment imported into New Zealand. MPI will examine the test certificates on arrival to confirm that they reconcile with the actual consignment. Importers
must ensure that MPI has access to all pertinent testing records held by MPI-approved testing facilities for audit purposes.

**Testing and Treatment Requirements:**

**Testing**

**Pantoea stewartii subsp. stewartii**
A negative result from testing a representative sample of 400 seeds using the immunosorbent assay test described by Lamka *et al.* (1991) may be used to show that the consignment is free of *Pantoea stewartii* subsp. *stewartii*.

**Clavibacter michiganensis subsp. nebraskensis**
A negative result from testing a representative sample of 400 seeds using the sCNS Culture Plate Method (Shepherd, 1999; [www.seedhealth.org](http://www.seedhealth.org)) may be used to show that the consignment is free of *Clavibacter michiganensis* subsp. *nebraskensis*.

**Acidovorax avenae subsp. avenae**
A negative result from testing a representative sample of 400 seeds using the methodology of Dange *et al.* (1978) may be used to show that the consignment is free of *Acidovorax avenae* subsp. *avenae*.

**High plains virus and Maize dwarf mosaic virus**
A negative result from testing a representative sample of seeds using greenhouse grow-out tests and ELISA testing as described by Forster *et al.* (2001) and Crop Plant Compendium 2003 may be used to show that the consignment is free of *High plains virus* and *Maize dwarf mosaic virus*.

**Maize chlorotic mottle virus**
Due to the low levels of seed transmission MPI will consider testing based upon request and will calculate the sample size required based upon the size of the consignment and at 95% confidence levels.

**N.B** – MPI will consider equivalent testing methods to the above upon request.

**Treatments**

**Fungicides**
The active ingredients in one of the following treatments are required:
(i) Carboxin at 0.8 g a.i. per kg seed & thiram at 0.8 g a.i. per kg seed.
(ii) Carboxin at 0.8 g a.i. per kg seed & captan at 0.7 g a.i. per kg seed.
(iii) Fludioxonil at 0.025 g a.i. per kg seed & metalaxyl at 0.03 g a.i. per kg seed.
(iv) Imazalil at 80 mg a.i. per kg seed & triadimenol at 220 mg a.i. per kg seed.
(v) Imazalil at 80 mg a.i. per kg seed & flutriafol at 80 mg a.i. per kg seed.
(vi) Difenoconazole at 0.12 g a.i per kg seed & mefenoxam at 0.01 g a.i per kg seed.
(vii) Fludioxonil at 0.025 g a.i. per kg seed & mefenoxam at 0.01 g a.i. per kg seed.

As required, MPI may evaluate other treatments and if effective, will approve these treatments and add them to this schedule.
References


Lamka, G L; Hill, J H; McGee, D C; and Braun, E J. 1991: Development of an immunosorbent assay for seedborne Pantoea stewartii subsp. stewartii in corn seeds. Phytopathology 81:839-846