

MAF BIOSECURITY NEW ZEALAND

STANDARD 155.02.05

Importation of Seed for Sowing

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

MAF Biosecurity New Zealand
Ministry of Agriculture and Forestry
P O Box 2526
Wellington
New Zealand

CONTENTS

Review and Endorsement
Amendment Record

- 1 Introduction**
- 1.1 Scope
- 1.2 References
- 1.3 Definitions And Abbreviations
- 1.4 General
- 1.5 Appendices
- 1.5.1 Quarantine Impurities
- 1.5.2 Schedule Of Regulated (Quarantine) Weed Seeds

- 2 Import Specification And Entry Conditions**
- 2.1 Import Specification
- 2.1.1 For Quarantine Pests Other Than Weed Seeds:
- 2.1.2 For Quarantine Weed Seeds:
- 2.2 Entry Conditions
- 2.2.1 Categories Of Entry Conditions
- 2.2.2 Basic Conditions
- 2.2.2.1 Cleanliness
- 2.2.2.2 Labelling
- 2.2.2.3 Phytosanitary Certificate
- 2.2.2.4 Seed Analysis
- 2.2.3 Importation Of Pelleted Seed
- 2.2.3.1 Additional Declarations
- 2.2.3.2 Seed Analysis
- 2.2.4 Importation Of Seed In Hermetically Sealed Containers/Packages
- 2.2.5 Importation Of Seed Mixtures

- 3. Schedule Of Species Requiring Additional Declarations And/Or Post Entry Quarantine**
- 3.1 Notes To The Schedule
- 3.2 Permit To Import
- 3.3 Importation Of Seed Into Post Entry Quarantine
- 3.4 Amendments To The Plants Biosecurity Index
- 3.5 Schedule Of Special Conditions

REVIEW

This MAF Biosecurity New Zealand standard is subject to ongoing review. Amendments will be issued to holders of controlled copies to ensure that the standard is current.

ENDORSEMENT

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



Dated at Wellington this 29 day of July 1998.

AMENDMENT RECORD

Amendments to this standard will be given a consecutive number and will be dated.

Please ensure that all amendments are inserted, obsolete pages removed, and the record below is completed.

No:	Entered by:	Details:	Date:
1	MAF Regulatory Authority	Not included	06/08/1998
2	MAF Regulatory Authority	Not included	17/03/1999
3	MAF Biosecurity Authority	Not included	01/07/1999
4	MAF Biosecurity Authority	Not included	16/08/1999
5	MAF Biosecurity Authority	Not included	28/06/2001
6	MAF Biosecurity Authority	Not included	27/09/2001
7	MAF Biosecurity Authority	Not included	21/03/2002
8	MAF Biosecurity Authority	Schedule of entry conditions for <i>Brassica napus</i>	01/10/2002
9	MAF Biosecurity Authority	Schedule of entry conditions for <i>Glycine</i>	01/01/2003
10	MAF Biosecurity Authority	Schedule of entry conditions for <i>Gossypium</i>	01/05/2003
11	MAF Biosecurity Authority	Schedule of entry conditions for <i>Acrocomia, Cocos, Corypha, Elaeis, Livistona</i> and <i>Phoenix</i>	19/05/2003
12	MAF Biosecurity Authority	Schedule of entry conditions for <i>Coffea</i>	24/06/2003
13	MAF Biosecurity Authority	Removal of sections 2.2.3 and 3.4 and insertion of revised section 3.3 <i>Importation of seed into post-entry quarantine</i>	04/08/2003
14	MAF Biosecurity Authority	Schedule of entry conditions for <i>Cicer</i>	22/09/2003
15	MAF Biosecurity Authority	Schedule of entry conditions for <i>Beta, Lens, Malus, Medicago, Prunus, Pyrus</i> and <i>Vaccinium</i>	24/11/2003
16	MAF Biosecurity Authority	Sections 1.1.1, 1.3, 2.3 and all schedules of special conditions	09/02/2004
17	MAF Biosecurity Authority	Schedule of entry conditions for <i>Actinidia</i> and <i>Papaver somniferum</i>	01/06/2004
18	MAF Biosecurity Authority	Section 1.6 and schedules of special conditions for <i>Agropyron, Beta, Fragaria, Hordeum, Humulus, Pisum</i> and <i>Ribes</i>	09/08/2004
19	Biosecurity New Zealand	Schedules of special conditions for <i>Avena, Hordeum, Pisum, Phaseolus, Triticum</i> and <i>Vicia</i>	07/12/2004
20	Biosecurity New Zealand	Schedule of special conditions for <i>Zea</i>	25/5/2005
21	Biosecurity New Zealand	Schedules of special conditions for <i>Avena, Cannabis, Hordeum, Pisum, Triticum, Vicia</i> and <i>Zea</i>	26/9/2005
22	Biosecurity New Zealand	Schedule of special conditions for <i>Anethum</i>	14/10/2005
23	Biosecurity New Zealand	Schedule of special conditions for <i>Brassica, Glycine, Medicago</i> and <i>Zea</i>	30/11/2006

24	MAF Biosecurity New Zealand	Sections 1, 2,3; schedules of special conditions for <i>Anethum</i> (removed), <i>Arbidopsis thaliana</i> (permit required) <i>Avena</i> , <i>Hordeum</i> , <i>Triticum</i> and <i>Zea</i> (removal of <i>Wheat streak mosaic virus</i>); <i>Phaseolus</i> and <i>Vicia</i> (removal of <i>Colletrotrichm truncatum</i>)	03/12/2007
----	-----------------------------	--	------------

1 INTRODUCTION

1.1 SCOPE

This standard describes the Import Specification and Entry Conditions for seeds imported into New Zealand for sowing.

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

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

Biosecurity New Zealand
Ministry of Agriculture and Forestry
PO Box 2526
Wellington
NEW ZEALAND
Fax: +64 4 894 0662
E-mail: plantimports@maf.govt.nz
Website: <http://www.maf.govt.nz>

1.2 REFERENCES

- Biosecurity Act 1993 (as amended by the Biosecurity Amendment Act 1997)
- Hazardous Substances and New Organisms Act 1996 (HSNO Act 1996)
- International Plant Protection Convention (IPPC)
- Ministry of Agriculture and Forestry Biosecurity Authority Standard PBC-NZ-TRA-PQCON: Specification for the Registration of a Plant Quarantine or Containment Facility, and Operator.

1.3 DEFINITIONS AND ABBREVIATIONS

ai

Active ingredient.

Basic

The basic conditions with which all consignments of seed must comply, unless their import conditions are covered by a schedule of special conditions.

Environmental Risk Management Authority (ERMA)

Authority responsible for administering the Hazardous Substances and New Organisms Act 1996.

Fleshy Fruit

Any fruit (matured ovary) that is succulent or semi-succulent e.g. a berry, drupe, pome.

Genetically Modified Organism (as defined by the HSNO Act 1996)

Any organism in which any of the genes or any other genetic material:

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

Import Health Standard (IHS)

A statement approved under section 22 of the Biosecurity Act 1993 by a chief technical officer of the conditions that must, if an import is to be made, be met in the country of origin or export, during transit, during importation and quarantine, and after introduction.

Inspector

Inspector under the Biosecurity Act (1993).

ISTA

International Seed Testing Association.

International Plant Protection Convention

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

IPPC

International Plant Protection Convention

International Standard for Phytosanitary Measures

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

ISPM

International Standard for Phytosanitary Measures

Level 1, Level 2 or Level 3 Quarantine

A system of post entry quarantine screening whereby seed is grown under certain specified conditions on a property and by a person registered by MAF as specified in MAF Regulatory Authority Standard 155.04.01: Specification for the Registration of a Plant Quarantine or Containment Facility, and Operator.

MAF

The New Zealand Ministry of Agriculture and Forestry.

Maximum Pest Limit (MPL)

The maximum level of infestation/contamination allowed within a consignment.

National Plant Protection Organisation

Official service established by Government to discharge the functions specified by the

IPPC. [FAO, 1990; formerly Plant Protection Organisation (National)].

NPPO

National Plant Protection Organisation

Pelleted Seed

Seed encased in a man-made nutritive or protective covering.

Permit (Permit to Import)

A Permit to Import issued by MAF Biosecurity New Zealand that specifies the conditions under which a particular commodity may be imported into New Zealand.

Pest

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

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

Pest free area

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

Pest free place of production

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

Phytosanitary Certificate

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

The certificate is issued by the exporting country’s NPPO, in accordance with the requirements of the IPPC, to verify that the requirements of the relevant import health standard have been met.

Post Entry Quarantine (PEQ)

The quarantine conditions [either Level 3 or Level 1/Level 2] under which certain seeds must be grown.

Pre-Germinated Seed

Seed with only the radicle (embryonic root) emerged.

Quarantine Pests (Regulated Organisms)

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

Reference Index

Plants Biosecurity Index.

SAC

Seed Analysis Certificate.

Seed

A unit of reproduction used for sowing. This includes spores but excludes vegetative propagules.

1.4 GENERAL

Seeds of plant species for which entry conditions have been developed are listed in the MAF Biosecurity New Zealand Plants Biosecurity Index <http://www1.maf.govt.nz/cgi-bin/bioindex/bioindex.pl>

If a species is not listed in the Plants Biosecurity Index, it means that conditions for import into New Zealand have not been developed. Proposals for the deliberate introduction of new organisms (including genetically modified organisms) as defined by the Hazardous Substances and New Organisms Act 1996 should be referred to:

Manager, Operations
Environmental Risk Management Authority
P O Box 131
Wellington
NEW ZEALAND

Phone: 04 916 2426
Fax: 04 914 0433
E-mail: info@ermanz.govt.nz

If a plant species is not included in the Plants Biosecurity Index, but is considered by an importer to be established in New Zealand, the applicant should provide information, including supporting evidence capable of being verified, to ERMA.

If ERMA approves an application, MAF Biosecurity New Zealand will undertake pest risk analyses and develop import health standards in accordance with the requirements of the Biosecurity Act 1993.

For plant species requiring phytosanitary certification entry conditions are given in section 3.6 of this standard. Pest risk analyses are required for imports of these species for countries other than those listed.

MAF Biosecurity New Zealand can be contacted for information on permit application procedures, risk analyses and import health standards.

Address for MAF Biosecurity New Zealand:

Plants Imports
MAF Biosecurity New Zealand
Ministry of Agriculture and Forestry
PO Box 2526
Wellington
NEW ZEALAND
Fax: 64-4-819 0662
E-mail: plantimports@maf.govt.nz

1.5 APPENDICES

1.5.1 QUARANTINE IMPURITIES

No seed lot will be released for sowing in New Zealand if it contains:

- * unidentified seed
- * regulated pests
- * in excess of 0.1% by weight of soil particles
- * seed of any of the quarantine weed species listed in the schedule below

1.5.2 SCHEDULE OF REGULATED (QUARANTINE) WEED SEEDS

<i>Acacia nilotica</i>	<i>Buddleja davidii</i>	<i>richardii</i> , <i>C. selloana</i> , <i>C.</i>
<i>Acaena affinis</i>	<i>Calicotome spinosa</i>	<i>splendens</i> , <i>C. toetoe</i> & <i>C.</i>
<i>Acaena aridula</i>	<i>Callilepis laureola</i>	<i>turbaria</i>)
<i>Acaena echinata</i>	<i>Calotis lappulacea</i>	<i>Cotoneaster franchetii</i>
<i>Acaena ovalifolia</i>	<i>Cannabis sativa</i>	<i>Cotoneaster glaucophyllus</i>
<i>Acaena pinnatifida</i>	<i>Cardaria chalepensis</i>	<i>Cotoneaster simonsii</i>
<i>Acaena sericea</i>	<i>Cardaria pubescens</i>	<i>Crataegus monogyna</i>
<i>Acaena subantarctica</i>	<i>Carduus</i> (all species except <i>C.</i>	<i>Crocosmia xcrocosmiiiflora</i>
<i>Acanthospermum hispidum</i>	<i>pycnocephalus</i> & <i>C.</i>	<i>Cryptostegia madagascariensis</i>
<i>Achnatherum calamagrostis</i>	<i>tenuiflorus</i>)	<i>Cuscuta europaea</i>
<i>Acroptilon repens</i>	<i>Carduus acanthoides</i>	<i>Cuscuta planiflora</i>
<i>Actinidia henanensis</i>	<i>Carduus nutans</i>	<i>Cuscuta suaveolens</i>
<i>Actinidia rubricaulis</i>	<i>Carex aurea</i>	<i>Cymbopogon schoenanthus</i>
<i>Adonis microcarpa</i>	<i>Carex baldensis</i>	<i>Cynanchum africanum</i>
<i>Aethusa cynapium</i>	<i>Carex longebrachiata</i>	<i>Cynanchum auriculatum</i>
<i>Ageratina adenophora</i>	<i>Carex pseudocyperus</i>	<i>Cynanchum floribundum</i>
<i>Ageratina altissima</i>	<i>Carthamus lanatus</i>	<i>Cynanchum marnieranum</i>
<i>Ageratina riparia</i>	<i>Castanospermum australe</i>	<i>Cynanchum nigrum</i>
<i>Ageratum conyzoides</i>	<i>Cenchrus caliculatus</i>	<i>Cynanchum nodosum</i>
<i>Agrimonia procera</i>	<i>Cenchrus echinatus</i>	<i>Cynanchum perrieri</i>
<i>Ailanthus altissima</i>	<i>Cenchrus incertus</i>	<i>Cyperus esculentus</i>
<i>Amaranthus blitoides</i>	<i>Centaurea repens</i>	<i>Cyperus glaber</i>
<i>Ambrosia deltoidea</i>	<i>Cephalaria syriaca</i>	<i>Cyperus rotundus</i>
<i>Ambrosia tenuifolia</i>	<i>Cestrum elegans</i>	<i>Cytisus multiflorus</i>
<i>Andropogon virginicus</i>	<i>Cestrum laevigatum</i>	<i>Cytisus scoparius</i>
<i>Anemia californica</i>	<i>Chamaecrista rotundifolia</i>	<i>Datura metel</i>
<i>Anemia intermedia</i>	<i>Chloris virgata</i>	<i>Dendrophthora</i>
<i>Arceuthobium</i> (all species)	<i>Chondrilla juncea</i>	<i>Digitaria abyssinica</i>
<i>Arctium minus</i>	<i>Chromolaena odorata</i>	<i>Drymaria arenarioides</i>
<i>Argemone munita</i>	<i>Chrysopogon aciculatus</i>	<i>Echinacea angustifolia</i>
<i>Aristida pallens</i>	<i>Cineraria lyrata</i>	<i>Echinops ruthenicus</i>
<i>Artemisia verlotiorum</i>	<i>Cirsium acaule</i>	<i>Eclipta alba</i>
<i>Arundo donax</i>	<i>Cirsium badakhschianicum</i>	<i>Eclipta prostrata</i>
<i>Asclepias tuberosa</i>	<i>Cirsium crinitum</i>	<i>Egeria</i> (all species)
<i>Aspalathus linearis</i>	<i>Cirsium esculentum</i>	<i>Eichhornia azurea</i>
<i>Aspalathus nivea</i>	<i>Cirsium kamtschaticum</i>	<i>Eichhornia crassipes</i>
<i>Baccharis halimifolia</i>	<i>Cirsium scariosum</i>	<i>Elaeagnus xreflexa</i>
<i>Berberis canadensis</i>	<i>Cirsium scopulorum</i>	<i>Eleocharis dulcis</i>
<i>Berberis fendleri</i>	<i>Clematis tangutica</i>	<i>Emex australis</i>
<i>Berberis glaucocarpa</i>	<i>Clidemia hirta</i>	<i>Emex spinosa</i>
<i>Berberis haematocarpa</i>	<i>Cnicus benedictus</i>	<i>Ephedra sinica</i>
<i>Berberis trifoliolata</i>	<i>Conium maculatum</i>	<i>Equisetum fluviatile</i>
<i>Berkheya rigida</i>	<i>Cortaderia</i> (all species except	<i>Eragrostis trichodes</i>
<i>Brayulinea densa</i>	<i>C. fulvida</i> , <i>C. jubata</i> , <i>C.</i>	<i>Eremocarpus setigerus</i>

Erica cinerea
Erica lusitanica
Euonymus japonicus
Euonymus monbeigii
Euphorbia esula
Ficus rubiginosa
Galega officinalis
Galeobdolon luteum
Geitonoplesium cymosum
Ginallia (all species)
Gymnema balsamica
Gymnema dentata
Gymnema viscida
Hakea lissocarpha
Halogeton glomeratus
Hedera helix
Helianthus ciliaris
Heliotropium amplexicaule
Heteropogon contortus
Hieracium alpinum
Hieracium bombycinum
Hieracium lachenalii
Hieracium lanatum
Hieracium maculatum
Hieracium pilosella
Hieracium villosum
Hieracium waldsteinii
Hippobroma longiflora
Hippuris vulgaris
Homeria collina
Homeria comptonii
Homeria miniata
Hyparrhenia (all species)
Hypericum androsaemum
Impatiens oncidoides
Ipomoea caerulea
Ipomoea hederacea
Ipomoea plebeia
Ipomoea triloba
Iva axillaris
Ixia aquatica
Jasminum polyanthum
Juglans ailantifolia
Kyllinga monocephala
Leycesteria formosa
Ligustrum sinense
Lycium chilense
Lycium ferocissimum
Lycium tenuispinosum
Macfadyena unguis-cati
Marsilea mutica
Melianthus major
Mikania cordata
Mikania micrantha
Monarda punctata
Monochoria hastata
Monochoria vaginalis
Montanoa hibiscifolia
Myagrum perfoliatum
Myrica californica
Myrica nana
Najas (all species except *N. guadalupensis* & *N. marina*)
Nassella neesiana
Nassella trichotoma
Nassella viridula
Nephrolepis cordifolia
Notothixos
Nuytsia floribunda
Nymphoides aquatica
Onopordum acanthium
Onopordum acaulon
Onopordum illyricum
Onopordum tauricum
Oplopanax horridum
Opuntia aurantiaca
Opuntia ficus-indica
Opuntia imbricata
Opuntia stricta
Ornithoglossum viride
Orobanche ramosa
Orobanche spp. (except *O. minor*)
Oxylobium lanceolatum
Panicum repens
Paraserianthes lophantha
Parthenium hysterophorus
Passiflora ampullacea
Passiflora caerulea
Peganum harmala
Pennisetum orientale
Pennisetum pedicellatum
Pennisetum polystachion
Peraxilla flavida
Petasites hybridus
Phoradendron
Phrynium dubium
Phrynium limosum
Phrynium reniforme
Pistia stratiotes
Plectranthus ecklonii
Plectranthus grandis
Polygala myrtifolia
Polygonum bistorta
Proboscidea altheaefolia
Prosopis pallida
Pueraria lobata
Racosperma longifolium
Racosperma paradoxum
Ranunculus acris
Rhamnus purshiana
Rhodomlyrtus tomentosa
Rubus ellipticus
Rubus moluccanus
Sagittaria graminea
Sagittaria latifolia
Sagittaria subulata
Salvinia molesta
Sambucus nigra
Scolymus hispanicus
Scolymus maculatus
Senecio jacobaea
Senecio pterophorus
Senna occidentalis
Setaria lutescens
Silybum marianum
Solanum elaeagnifolium
Solanum mauritianum
Sorghum alnum
Sorghum halepense
Sorghum x alnum
Spartina alterniflora
Spartina anglica
Spartina xtownsendii
Spirodela polyrrhiza
Sporobolus poiretii
Stipa calamagrostis
Stipa gigantea
Stipa hohenackerana
Stipa pennata
Stipa tenacissima
Striga (all species)
Strychnos nux-vomica
Tagetes minuta
Teline monspessulana
Thamnochortus insignis
Themeda quadrivalvis
Thunbergia grandiflora
Tourretia
Trapa bicornis
Trianthema portulacastrum
Tribulus cistoides
Tribulus terrestris
Ulex europaeus
Urtica dioica
Utricularia biflora
Vallisneria spiralis
Veratrum album
Verbesina encelioides
Vinca major
Viscaceae (all genera and species)
Viscum album
Xanthium spinosum
Xanthium strumarium
Zigadenus venenosus
Zizania (all species except *Z. latifolia*)

Note: Interception of other seeds above the Maximum Pest Limit of 0.01% [ie. acceptance number is zero in a sample(s) drawn and analysed by a MAF Biosecurity New Zealand approved method (eg. International Seed Testing Association (ISTA) sampling methods (*ISTA International Rules for Seed Testing, Seed Science and Technology 24, 1996*) will result in the consignment being held until an assessment has been made in comparison with the risk of importing the plant species concerned.

1.6 CONVENTION ON INTERNATIONAL TRADE IN ENDANGERED SPECIES

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

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

2 IMPORT SPECIFICATION AND ENTRY CONDITIONS

2.1 IMPORT SPECIFICATION

The Import Specification for seed for sowing is:

2.1.1 FOR QUARANTINE PESTS OTHER THAN WEED SEEDS:

Pest contamination shall not exceed the Maximum Pest Limit (MPL) of 0.9 pests or infected seeds per kg of seed.

To achieve 95% confidence that the MPL will not be exceeded, no quarantine pests are permitted in an officially drawn sample of 5kg, or in the whole consignment if less than 5kg (ie. acceptance No. = 0).

2.1.2 FOR QUARANTINE WEED SEEDS:

Quarantine weed seed contamination shall not exceed the MPL of 0.01%.

To achieve 95% confidence that the MPL will not be exceeded, no quarantine weed seeds are permitted (ie. acceptance No. = 0) in a sample(s) drawn and analysed by a MAF Biosecurity New Zealand approved method [eg. International Seed Testing Association (ISTA) sampling methods (*ISTA International Rules for Seed Testing, Seed Science and Technology 24, 1999*) are approved by the MAF Biosecurity New Zealand)].

2.2 ENTRY CONDITIONS

2.2.1 CATEGORIES OF ENTRY CONDITIONS

The following entry conditions have been developed to ensure that seed imported for sowing will meet the Import Specification:

- a. **Basic Conditions** that all seed consignments must meet.
- b. **Special Conditions** that apply to particular seed consignments, as indicated in the Plants Biosecurity Index and outlined in the **Schedule of Special Conditions** (see section 3).

2.2.2 BASIC CONDITIONS

2.2.2.1 Cleanliness

All seed shall be in clean, new packages. Any seed from fleshy fruits shall have all traces of flesh removed with the exception of seed of approved (i.e. listed in the Plants Biosecurity Index) Orchidaceae, which may be imported in dry/green pods.

2.2.2.2 Labelling

Each type of seed in the consignment must be clearly identified by its botanical name to species level.

Note: Numbering or coding of packets is acceptable provided an accompanying list is provided linking this to the botanical names.

2.2.2.3 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.

(i) The consignment is to be accompanied by a phytosanitary certificate 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. If visually detectable pests are found which are not listed in the import health standard, the certifying NPPO must establish their regulatory status prior to issuing the certificate. This information is available in MAF's "Biosecurity Organisms Register for Imported Commodities": <http://www.maf.govt.nz/biosecurity/pests-diseases/registers-lists/boric/>

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

(ii) for pre-germinated seed, certifies that the seed has been germinated in an inert medium such as perlite or vermiculite.

Compliance with the above will result in biosecurity clearance.
(Note: audit samples may be drawn).

Option 2: Seed without a phytosanitary certificate

On arrival in New Zealand the consignment or samples, drawn in accordance with MAF Biosecurity New Zealand approved sampling rules, are to be inspected by a MAF Quarantine Service inspector at the Importer's expense.

Biosecurity clearance will be given if the seed meets the basic conditions.

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

(i) The consignment is to be accompanied by a phytosanitary certificate issued by the national plant protection organisation in the country of origin, which certifies that the seed has been inspected in the exporting country according to appropriate procedures and conforms with New Zealand's current entry conditions. The certificate must include any additional

declaration(s) listed in the Schedule of Special Conditions (see section 3).

(ii) for pre-germinated seed, certifies that the seed has been germinated in an inert medium such as perlite or vermiculite.

2.2.2.4 Seed Analysis

The Importer may elect one of the following two options:

Option 1: Seed accompanied by a SAC

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 MAF Biosecurity New Zealand accepted seed testing station (ISTA or AOSA accredited Seed Testing Stations are accepted by the MAF Biosecurity New Zealand).
- (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) give 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 found in the sample.
- (vii) certify that none of the quarantine weed seeds listed in Appendix 1.5.2 of this standard were present in the sample.

Option 2: Seed not accompanied by a SAC

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

Should the consignment not comply with New Zealand's phytosanitary conditions, the importer will be given the option of treatment (where available), reshipment, or destruction of the consignment at the importer's expense.

2.2.3 IMPORTATION OF PELLETED SEED

2.2.3.1 Additional Declarations

Any pest/disease additional declarations required for seed in the schedule must also be provided for pelleted seed.

2.2.3.2 Seed Analysis

Samples for seed analysis may be drawn before or after the seed is pelleted.

For samples drawn prior to pelleting:

- a.** The pelleted seed is to be accompanied by the SAC issued for the seed lot from which the seed sample was drawn.
- b.** The phytosanitary certificate is to include a declaration that the pelleted seed is from the same lot of seed as the accompanying SAC.

For samples drawn after pelleting:

A random sample of 10% or 25 seed, whichever is smaller, is to be drawn and the seed “coating” removed by physical cracking or washing to ensure no restricted seed or other contaminants are pelleted.

2.2.4 IMPORTATION OF SEED IN HERMETICALLY SEALED CONTAINERS/PACKAGES

a. Private Consignments

All private consignments (not for resale) of seed in hermetically sealed containers/packages shall be inspected on arrival for contamination and/or signs of pest and disease.

b. Commercial Consignments

All lines of commercial consignments of seed in hermetically sealed containers/packages shall be sampled for inspection as specified in the sampling plan below. A “line” is a species sourced from any one supplier from one country per consignment.

No. of packages in Line	Inspection Sample Size (No. of packages)
1-50	2
51-100	3
101-200	4
201-350	6
351-500	8

501-750	10
751-1,200	12
1,201-2,000	15
2,001-3,500	20
3,501-5,000	25
Over 5,000	40

Where seed is accompanied by a Seed Analysis Certificate, the declaration may be accepted in lieu of inspection.

Verification audits may be conducted by MAF to ensure confidence in the declarations.

Where packets are not intact, or the where the contents can be seen without opening to be inconsistent with the labelling, further sampling will be required.

2.2.5 IMPORTATION OF SEED MIXTURES

- a. A list of all **species** in the mixture is to accompany the consignment.
- b. The entry requirements for each **species** in the mixture are to be met.

2.3 COMPLIANCE PROCEDURES

On arrival in New Zealand the consignment and all associated documentation will be inspected by an Inspector to ensure compliance with the requirements of this standard and the Biosecurity Act 1993.

For all imported consignments of seeds for sowing, MAF reserves the right to validate all testing and audit all treatment processes that have been undertaken. Audits will be conducted on a regular basis and at the expense of the importer.

Seed that does not meet the requirements described in this import health standard (e.g., additional declarations not provided for all regulated pests) will not be given biosecurity clearance on arrival in New Zealand. The importer will be given the option of an equivalent measure if appropriate (e.g., testing or treatment), reshipe or destroy the consignment. Such treatments must be carried out in a facility accredited to MAF standard 152.04.03F: *Requirements for Holding and Processing Facilities (Class: Transitional Facilities) for Uncleared Risk Goods*, according to MAF standard BMG-STD-TREAT: *Approval of Suppliers Providing Treatment of Imported Risk Goods and Forestry/Plant Related Material for Export*.

3. SCHEDULE OF SPECIES REQUIRING ADDITIONAL DECLARATIONS AND/OR POST ENTRY QUARANTINE

3.1 NOTES TO THE SCHEDULE

All seed imported for sowing must meet the basic conditions outlined in section 2.2.2.

Seeds listed in the Schedule have additional requirements, which may include:

- * a Permit to Import.
- * additional declarations on the Phytosanitary Certificate.
- * a requirement for Post Entry Quarantine.

3.2 PERMIT TO IMPORT

Where a Permit to Import is required, an application should be made to Plant Imports stating:

- a. the botanical name of the seed (to the species level)
- b. the quantity required
- c. the country (and state if applicable) of origin of the seed

- d. the intended site where the seed will be grown, if a period of post entry quarantine is required

Note: If a species specific import health standard is approved and issued by the Chief Technical Officer prior to the expiry date indicated on a Permit to Import, the conditions on the species specific import health standard, if different, shall override the conditions on the Permit to Import.

3.3 IMPORTATION OF SEED INTO POST ENTRY QUARANTINE

Seed of species which have requirements additional to the basic conditions (as described in section 3.5) may be imported from any country into post-entry quarantine without an accompanying phytosanitary certificate with the required additional declarations, providing that:

- the consignment meets the basic conditions described in section 2; and
- the consignment is accompanied by a valid permit to import.

The permit to import must be obtained prior to import and will specify:

- the information required in section 3.2; and
- the level of post entry quarantine required and the location of the quarantine facility; and
- the inspection, testing and treatment requirements; and
- the minimum quarantine period.

The post-entry quarantine requirements, as specified by the permit to import, must be carried out in a facility accredited to MAF standard PBC-NZ-TRA-PQCON: *Specification for the Registration of a Plant Quarantine or Containment Facility, and Operator*. The level of post entry quarantine specified will be sufficient to minimise the possibility of entry of associated pests. In accordance with the conditions on the permit to import, the seed will be grown for a minimum quarantine period and will be tested, treated or inspected for regulated pests at the expense of the importer.

Any treatments required by the permit to import must be carried out in a facility accredited to MAF standard 152.04.03F *Requirements for Holding and Processing Facilities* (Class: Transitional Facilities) for Uncleared Risk Goods, according to MAF standard BMG-STD-TREAT: *Approval of Suppliers Providing Treatment of Imported Risk Goods and Forestry/Plant Related Material for Export*.

3.4 AMENDMENTS TO THE PLANTS BIOSECURITY INDEX

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

The Plants Biosecurity Index will be continuously updated on the MAF web site (<http://www1.maf.govt.nz/cgi-bin/bioindex/bioindex.pl>). The information provided within the web site copy of the Plants Biosecurity Index is only intended to be general

information to the public. It is not intended to take the place of, or to represent, the written law of New Zealand or other official guidelines or requirements.

3.5 SCHEDULE OF SPECIAL CONDITIONS

The following pages list the seeds that either have additional requirements to the basic conditions, or have approved species specific import health standards.

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

GENERAL CONDITIONS:

For the approved plant species for which **NO** species specific import health standards have been developed, the following conditions apply:

Countries: All

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

Entry Conditions: **Basic; PLUS**

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

Note: These entry conditions only apply to species in the Plants Biosecurity Index listed under Import Specifications for Seed as “see 155.02.05 under *Acer*”.

GENERAL CONDITIONS:

For the approved plant species for which **NO** species specific import health standards have been developed, the following conditions apply:

Countries: All

Quarantine Pests: *Cryphonectria parasitica*

Entry Conditions: Basic; PLUS

1. A prior Permit to import is required:

PEQ: Level 1
Minimum Period: 1 growing season
Isolation: 50 metres

2. Phytosanitary Certificate Additional Declarations:

(a) "*Cryphonectria parasitica* is not known 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."

(b) "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

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

1. Entry conditions for *Acrocomia* seeds for sowing from approved exporting countries

(i) *Pests of Acrocomia*

Coconut cadang-cadang viroid

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

(ii) *Approved exporting countries*

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

(iii) *Documentation*

Phytosanitary certificate: a completed phytosanitary certificate issued by the NPPO of the exporting country must accompany all consignments of *Acrocomia* seeds for sowing imported into New Zealand.

(iv) *Phytosanitary requirements*

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

The *Acrocomia* 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.

(v) *Additional declarations to the phytosanitary certificate*

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

"The *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.

Actinidia

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

Entry conditions for *Actinidia* seeds from approved countries

These requirements are in addition to the Basic requirements set out in Section 2 of the standard.

(i) *Pests of Actinidia*

Refer to the pest list.

(ii) *Approved exporting countries*

All countries

(iii) *Documentation*

Phytosanitary certificate: a completed phytosanitary certificate issued by the NPPO of the exporting country must accompany all consignments of *Actinidia* seed for sowing imported into New Zealand.

Import permit: an import permit is required.

(iv) *Phytosanitary requirements*

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

The *Actinidia* seeds for sowing have been:

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

(v) *Additional declarations to the phytosanitary certificate*

No additional declarations are required.

(vi) *Post-entry quarantine*

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

Quarantine Period: The seed will be grown for a minimum period of 6 months and will be inspected and/or tested for regulated pests at the expense of the importer. Six months is an indicative minimum quarantine period and this period may be extended if material is slow growing, pests are detected, or treatments/testing are required.

Pest List for *Actinidia*

REGULATED PESTS (actionable)

Virus

genus Capillovirus

Apple stem grooving virus [Actinidia infecting strain] -

NON-REGULATED PESTS(non-actionable)

Fungus

Ascomycota

Diaporthales

Valsaceae

Diaporthe actinidiae phomopsis canker

Diaporthe perniciosa (anamorph *Phomopsis mali*) canker

Dothideales

Botryosphaeriaceae

Botryosphaeria dothidea (anamorph canker

Fusicoccum aesculi)

Botryosphaeria parva (anamorph *Fusicoccum parvum*) canker

Botryosphaeria stevensii (anamorph *Diplodia mutila*) botryosphaeria canker

Hypocreales

Hypocreaceae

Gibberella acuminata (anamorph *Fusarium acuminatum*) fusarium storage rot

Nectria haematococca (anamorph *Fusarium solani*) fusarium fruit rot

Leotiales

Sclerotiniaceae

Botryotinia fuckeliana (anamorph *Botrytis cinerea*) grey mould

Sclerotinia sclerotiorum cottony rot

Phyllachorales

Phyllachoraceae

Glomerella cingulata (anamorph *Colletotrichum gloeosporioides*) anthracnose

Zygomycota: Zygomycetes

Mucorales

Mucoraceae

Rhizopus stolonifer rhizopus soft rot

mitosporic fungi (Coelomycetes)

Sphaeropsidales	
Sphaerioidaceae	
<i>Fusicoccum luteum</i>	bunch rot
<i>Phoma exigua</i>	phoma rot
<i>Phoma macrostoma</i>	fruit and leaf spot
unknown Coelomycetes	
unknown Coelomycetes	
<i>Colletotrichum acutatum</i>	anthracnose
mitosporic fungi (Hyphomycetes)	
Hyphomycetales	
Dematiaceae	
<i>Alternaria alternata</i>	black stalk rot
<i>Cladosporium oxysporum</i>	cladosporium leaf spot
Moniliaceae	
<i>Acremonium alternatum</i>	-
unknown Hyphomycetes	
unknown Hyphomycetes	
<i>Aureobasidium pullulans</i>	seed rot
 Bacterium	
 Pseudomonadaceae	
<i>Pseudomonas viridiflava</i>	leaf blight

Inspection, Testing and Treatment Requirements for *Actinidia*

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

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, MAF will accept other internationally recognised testing methods.

References

Clover, G.R.G., Pearson, M.N., Elliott, D.R., Tang, Z., Smales, T.E. and Alexander, B.J.R. (2003). Characterization of a strain of *Apple stem grooving virus* in *Actinidia chinensis* from China. *Plant Pathology* 52: 371-378.

Agropyron

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

GENERAL CONDITIONS:

Countries: All

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

Entry Conditions: **Basic; PLUS**

Phytosanitary Certificate Requirements:

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

The *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:

- (a) "*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".

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

GENERAL CONDITIONS:

Countries: All

Quarantine Pests: *Trogoderma* spp.; Ustilaginales

Entry Conditions: Basic; PLUS

Phytosanitary Certificate Requirements:

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

The *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 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. No additional declarations are required.

Arabidopsis thaliana

Note: These entry conditions only apply to species in the Plants Biosecurity Index listed under Import Specifications for Seed as “see 155.02.05 under *Anethum*”.

GENERAL CONDITIONS:

For the approved plant species for which **NO** species specific import health standards have been developed, the following conditions apply:

Countries: All

Quarantine Pests: None

Entry Conditions: Basic; PLUS

1. A prior Permit to import is required:

All genetically modified seed must also be imported in accordance with an ERMA approval.

All other seed must be accompanied by a supplier’s declaration stating that the seed is not genetically modified.

Avena

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

Entry conditions for *Avena* seeds for sowing from approved exporting countries

These requirements are in addition to the Basic requirements set out in Section 2 of the standard.

(i) *Pests of Avena*

Refer to “Pest List for *Avena*”.

(ii) *Approved exporting 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.

(iii) *Documentation*

A completed phytosanitary certificate issued by the NPPO of the exporting country must accompany all *Avena* seeds for sowing exported to New Zealand.

(iv) *Phytosanitary requirements*

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

The *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 MAF’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 MAF’s “Approved Treatments for *Avena*”.

Avena

(v) Additional declarations to the phytosanitary certificate

If satisfied that the pre-shipment activities have been undertaken, the exporting country NPPO must confirm this by **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*."

Pest List for *Avena*

REGULATED PESTS (actionable)

Insect

Insecta

Blattodea

Blattidae

Blatta orientalis

Oriental cockroach

Coleoptera

Bostrichidae

Prostephanus truncatus

larger grain borer

Cryptophagidae

Cryptophagus schmidti

-

Cucujidae

Cathartus quadricollis

squarenecked grain beetle

Curculionidae

Caulophilus oryzae

broadnosed grain weevil

Dermestidae

Trogoderma granarium

khapra beetle

Trogoderma inclusum

trogoderma beetle

Trogoderma ornatum

trogoderma beetle

Trogoderma simplex

dermestid beetle

Trogoderma sternale

dermestid beetle

Trogoderma variabile

warehouse beetle

Mycetophagidae

Mycetophagus quadriguttatus

spotted hairy fungus beetle

Nitidulidae

Carpophilus obsoletus

dried fruit beetle

Ptinidae

Gibbium psylloides

shiny spider beetle

Mezium americanum

American spider beetle

Niptus hololeucus

golden spider beetle

Pseudoeurostus hilleri

spider beetle

Ptinus clavipes

brown spider beetle

Ptinus fur

whitemarked spider beetle

Ptinus villiger

hairy spider beetle

Tipnus unicolor

spider beetle

Trigonogenius globulus

-

Tenebrionidae

Alphitobius laevigatus

black fungus beetle

Alphitophagus bifasciatus

two-banded fungus beetle

Blaps mucronata

cellar beetle

Gnatocerus maxillosus

slenderhorned flour beetle

Latheticus oryzae

longheaded flour beetle

<i>Palorus ratzeburgi</i>	smalleyed flour beetle
<i>Palorus subdepressus</i>	depressed flour beetle
<i>Tribolium audax</i>	American black flour beetle
<i>Tribolium destructor</i>	dark flour beetle
Trogossitidae	
<i>Lophocateres pusillus</i>	Siamese grain beetle
Hemiptera	
Lygaeidae	
<i>Elasmolomus sordidus</i>	seed bugs
Lepidoptera	
Cosmopterigidae	
<i>Pyroderces rileyi</i>	pink scavenger caterpillar
Oecophoridae	
<i>Anchonoma xeraula</i>	grain moth
Pyralidae	
<i>Corcyra cephalonica</i>	rice moth
<i>Ephestia figulilella</i>	raisin moth
<i>Paralipsa gularis</i>	stored nut moth
Tineidae	
<i>Nemapogon variatella</i>	corn moth
Mite	
Arachnida	
Acarina	
Eriophyidae	
<i>Aceria tosichella</i>	wheat curl mite
<i>Aceria tulipae</i> [vector]	wheat curl mite
Siteroptidae	
<i>Siteroptes cerealium</i>	asparagus spider mite
Tarsonemidae	
<i>Steneotarsonemus spirifex</i>	oat spiral mite
Nematode	
Secernentea	
Tylenchida	
Anguinidae	
<i>Anguina tritici</i> [vector]	seed gall nematode
Fungus	
Hyphomycetales	
Moniliaceae	
<i>Cephalosporium gramineum</i>	
Bacterium	
Pseudomonadaceae	
<i>Xanthomonas campestris</i> pv. <i>undulosa</i>	leaf streak

Virus

High plains virus

-

Approved Treatments for *Avena*

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 0.23 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.
- iv)** 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, MAF may evaluate other treatments and if effective, will approve these treatments and add them to this schedule.

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

1. Entry conditions for *Beta* seeds for sowing from approved exporting countries

(i) Pests of Beta

Clavibacter michiganensis subsp. *sepedonicus*.

(ii) Approved exporting countries

All countries

(iii) Documentation

Phytosanitary certificate: a completed phytosanitary certificate issued by the national plant protection organisation (NPPO) of the exporting country must accompany all consignments of *Beta* seeds for sowing imported into New Zealand.

(iv) Phytosanitary requirements

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

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*.

(v) Additional declarations to the phytosanitary certificate

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

"The *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

Note: These 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*”.

1. Species-specific entry conditions for *Brassica napus* seeds for sowing from approved exporting countries

(i) Pests of *Brassica napus*

None

(ii) Approved exporting countries

All countries

(iii) Documentation

Phytosanitary certificate: a completed phytosanitary certificate issued by the national plant protection organisation (NPPO) of the exporting country must accompany all consignments of *Brassica napus* seeds for sowing exported to New Zealand. 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, see section (vi).

Genetically modified seed test certificate: The New Zealand Ministry of Agriculture and Forestry requires that all consignments of *Brassica napus* var. *oleifera* (oilseed rape) that are imported into New Zealand are tested for contamination with unapproved genetically modified seeds, see section (vi).

Import permit: an import permit is only required for seeds that must be grown in a registered quarantine facility as described in section (vi) and 4.

(iv) Phytosanitary requirements

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

The *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.

(v) Additional declarations to the phytosanitary certificate

No additional declarations are required.

(vi) Sampling and testing for adventitious contamination of *Brassica napus* var. *oleifera* seed consignments with unapproved genetically modified seeds

The New Zealand Ministry of Agriculture and Forestry (MAF) requires that all consignments of *Brassica napus* var. *oleifera* (oilseed rape) that are imported into New Zealand are representatively sampled, tested, and found to be free of unapproved GM seeds. Alternatively, the seeds must be sourced from countries that MAF has granted area freedom from commercial production 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 testing and sampling for the presence of unapproved GM seeds are specified in the *Protocol for testing imports of Brassica napus var. oleifera seed for sowing for the presence of genetically modified seed*. The protocol includes three further modified options for importers of small quantities (defined as weighing less than 0.1 kg per line) of seeds for cultivar trials and/or multiplication.

Testing may be conducted by facilities approved by MAF 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 MAF-approved facility) must accompany the consignment imported into New Zealand. MAF will examine the test certificates on arrival to confirm that they reconcile with the actual consignment. Importers must ensure that MAF has access to all pertinent testing records held by MAF-approved testing facilities for audit purposes.

If consignments arrive at the New Zealand border without having been tested for the presence of unapproved GM seeds, MAF 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. Any consignment held at the New Zealand border that is tested and found to contain unapproved GM seeds will not be permitted to enter New Zealand and will be re-shipped or destroyed.

The protocol, the Standard, and a list of MAF-approved facilities for testing for the presence of GM material in *Brassica napus* var. *oleifera* are located at the following address on the MAF web site:

<http://www.biosecurity.govt.nz/imports/plants/genetically-modified-organisms/plants-seeds.htm>

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

MAF 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 MAF accredited facilities at the expense of the importer.

Camellia sinensis

Note: These 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*”.

GENERAL CONDITIONS:

Countries: All

Quarantine Pests: *Exobasidium vexans*; Phloem necrosis

Entry Conditions: Basic; PLUS

1. A prior permit to import is required:

PEQ: Level 1
Minimum Period: 1 growing season
Isolation: 50 m

2. Phytosanitary Certificate Requirements:

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

The *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.

3. 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) _____".

Note: These entry conditions only apply to species in the Plants Biosecurity Index listed under Import Specifications for Seed as “see 155.02.05 under *Camissonia*”.

GENERAL CONDITIONS:

Countries: All

Quarantine Pests: *Peronospora arthurii*

Entry Conditions: Basic; PLUS

Phytosanitary Certificate Requirements:

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

The *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 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. No additional declarations required.

Cannabis sativa

Note: These 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

Entry conditions for *Cannabis sativa* (low THC Hemp seed variety) seeds for sowing from approved exporting countries

These requirements are in addition to the Basic requirements set out in Section 2 of the standard.

(i) *Pests of Cannabis sativa*

Refer to “Pest List for *Cannabis sativa*”.

(ii) *Approved exporting countries*

All countries

(iii) *Documentation*

Phytosanitary certificate: A completed phytosanitary certificate issued by the NPPO of the exporting country must accompany all *Cannabis sativa* seeds for sowing exported into New Zealand.

(iv) *Phytosanitary certification*

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

The *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 MAF’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 MAF’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 MAF'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*).

(v) Additional declarations to the phytosanitary certificate

If satisfied that the pre-shipment activities have been undertaken, the exporting country NPPO must confirm this by **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 MAF-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

- Carboxin at 0.8g a.i. per kg seed and thiram at 1g a.i. per kg seed.
- Carboxin at 0.8g a.i. per kg seed and captan at 0.7g a.i. per kg seed.
- Imazalil at 80mg a.i. per kg seed and triadimenol at 220mg a.i. per kg seed.
- Imazalil at 80mg a.i. per kg seed and flutriafol at 80mg a.i. per kg seed.

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

Pest List for *Cannabis sativa* (Seed for Sowing)

Scientific name	Organism type	Common name	Quarantine status	Measures to prevent entry	Actions on interception
<i>Pseudomonas syringae</i> pv. <i>cannabina</i>	bacterium	-	Regulated	5 or 7 or 8	3
<i>Xanthomonas campestris</i> pv. <i>cannabis</i>	bacterium	-	Regulated	5 or 7 or 8	3
<i>Curvularia cymbopogonis</i>	fungus	-	Regulated	5 or 7	3
<i>Leptosphaeria woroninii</i>	fungus	-	Regulated	5 or 7	3
<i>Septoria cannabis</i>	fungus	yellow leaf spot	Regulated	5 or 7	3
<i>Hemp mosaic virus</i>	virus	-	Regulated	7 or 8	3
<i>Hemp streak virus</i>	virus	-	Regulated	7 or 8	3
<i>Pyrrhocoris apterus</i>	Insect	fire bug	Regulated	2	3
<i>Episyrphus balteatus</i>	Insect		Regulated	2	3
<i>Ischiodon scutellaris</i>	Insect	syrphid fly	Regulated	2	3
<i>Metasyrphus latifasciatus</i>	Insect	syrphid fly	Regulated	2	3
<i>Sphaerophoria scripta</i>	Insect	hover fly	Regulated	2	3
<i>Syritta pipiens</i>	Insect	hover fly	Regulated	2	3
<i>Aculops cannabiscola</i>	mite	hemp russett mite	Regulated	2	3
<i>Orobanche ramosa</i>	Weed	branched broomrape	Regulated	2	3

Measures to prevent entry and establishment

1. No measures.
2. Seed and associated packaging inspected and found to be free from visually detectable regulated pests.
3. Consignments are free from extraneous material, e.g., soil, plant residue that may carry regulated pests.
4. Undergone effective treatment for regulated pests.
5. Undergone specified treatment for regulated pests.
6. Undergone specified testing for regulated pests.
7. Sourced from a pest free area.
8. Sourced from a pest free place of production.

Actions on interception

1. Removal of extraneous material, e.g., soil, plant residue that may carry regulated pests.
2. Treat (if appropriate), reship or destroy.
3. No action if pest not viable.

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

GENERAL CONDITIONS:

Countries: All

Quarantine Pests: *Cladosporium caryigenum*; *Cryphonectria parasitica*

Entry Conditions: Basic; PLUS

1. A prior permit to import is required:

PEQ: Level 1
Minimum Period: 1 growing season
Isolation: 50 metres

2. Phytosanitary Certificate Requirements:

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

The *Carpinus* seeds for sowing have been:

- sourced from a “Pest free area” free from *Cladosporium caryigenum* and *Cryphonectria parasitica*.

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.

3. 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:

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

Carthamus tinctorius

Note: These 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*”.

GENERAL CONDITIONS:

Countries: All

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

Entry Conditions: Basic; PLUS

Phytosanitary Certificate Requirements:

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

The *Carthamus tinctorius* seeds for sowing have been 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. No additional declarations are required.

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

GENERAL CONDITIONS:

Countries: Australia, USA

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

Entry Conditions: Basic; PLUS

Phytosanitary Certificate Additional Declarations:

(a) "*Conotrachelus* spp., *Curculio 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:

Temperature	Rate (g/m ³)	Time (hours)	Pressure
15 - 21°C	32	12	atmospheric
21°C or above	16	12	atmospheric
15 - 21°C	48	1.5	91 kpa vacuum
21°C or above	48	1.0	91 kpa vacuum

(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

Carya ovata

Note: These entry conditions only apply to species in the Plants Biosecurity Index listed under Import Specifications for Seed as “see 155.02.05 under *Carya ovata*”.

GENERAL CONDITIONS:

Countries: Australia

Quarantine Pests: *Cladosporium caryigenum*; *Cryphonectria parasitica*; *Conotrachelus* spp.; *Curculio caryae*; *Cydia caryana*; *Trogoderma* spp.

Entry Conditions: Basic; PLUS

1. A prior permit to import is required:

PEQ: Level 1

Minimum Period: 1 growing season

Isolation: 50 m

2. Phytosanitary Certificate Additional Declarations:

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

(b) "*Conotrachelus* spp., *Curculio 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:

(Continued next page)

Carya ovata

Temperature	Rate (g/m ³)	Time (hours)	Pressure
15 - 21°C	32	12	atmospheric
21°C or above	16	12	atmospheric
15 - 21°C	48	1.5	91 kpa vacuum
21°C or above	48	1.0	91 kpa vacuum

- (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

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

GENERAL CONDITIONS:

Countries: All

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

Entry Conditions: Basic; PLUS

A prior permit to import is required:

PEQ: Level 3

Minimum Period: 1 growing season

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

1. Entry conditions for *Cicer* seeds for sowing from approved exporting countries:

(i) Pests of *Cicer*

Ascochyta rabiei; *Megaselia arietina*; *Trogoderma* spp.

(ii) Approved exporting countries

All countries

(iii) Documentation

Phytosanitary certificate: a completed phytosanitary certificate issued by the national plant protection organisation (NPPO) of the exporting country must accompany all consignments of *Cicer* seeds for sowing imported into New Zealand.

(iv) Phytosanitary requirements

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

The *Cicer* seeds for sowing have:

– been sourced from a “Pest free area” or “Pest free place of production”.

(v) Additional declarations to the phytosanitary certificate

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

“The *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*.

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

GENERAL CONDITIONS:

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*

Entry Conditions: Basic; PLUS

Phytosanitary Certificate Additional Declaration:

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

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

1. Entry conditions for *Cocos* seeds for sowing from approved exporting countries

(i) Pests of *Cocos*

Coconut cadang-cadang viroid

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

(ii) Approved exporting countries

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

(iii) Documentation

Phytosanitary certificate: a completed phytosanitary certificate issued by the NPPO of the exporting country must accompany all consignments of *Cocos* seeds for sowing imported into New Zealand.

(iv) Phytosanitary requirements

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

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*.

(v) Additional declarations to the phytosanitary certificate

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

"The *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*.

Note: These entry conditions only apply to species in the Plants Biosecurity Index listed under Import Specifications for Seed as “see 155.02.05 under *Coffea*”.

GENERAL CONDITIONS:

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

Quarantine Pests: *Stephanoderes hampei*

Entry Conditions: **Basic; PLUS**

Phytosanitary Certificate Requirements:

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

The *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 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. No additional declarations required.

Coriandrum

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

GENERAL CONDITIONS:

Countries: All

Quarantine Pests: *Ramularia coriandri*; *Trogoderma* spp

Entry Conditions: Basic; PLUS

Phytosanitary Certificate Requirements:

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

The *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".

Corypha

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

1. Entry conditions for *Corypha* seeds for sowing from approved exporting countries

(i) Pests of *Corypha*

Coconut cadang-cadang viroid

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

(ii) Approved exporting countries

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

(iii) Documentation

Phytosanitary certificate: a completed phytosanitary certificate issued by the national plant protection organisation (NPPO) of the exporting country must accompany all consignments of *Corypha* seeds for sowing imported into New Zealand.

(iv) Phytosanitary requirements

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

(v) Additional declarations to the phytosanitary certificate

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

"The *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*.

Note: These entry conditions only apply to species in the Plants Biosecurity Index listed under Import Specifications for Seed as “see 155.02.05 under *Cuminum*”.

GENERAL CONDITIONS:

Countries: All

Quarantine Pests: *Alternaria burnsii*

Entry Conditions: Basic; PLUS

Phytosanitary Certificate Requirements:

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

The *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".

Desmodium

Note: These entry conditions only apply to species in the Plants Biosecurity Index listed under Import Specifications for Seed as “see 155.02.05 under *Desmodium*”.

GENERAL CONDITIONS:

Countries: All

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

Entry Conditions: Basic; PLUS

Phytosanitary Certificate Additional Declaration:

"*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

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

GENERAL CONDITIONS:

Countries: All

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

Entry Conditions: Basic; PLUS

Phytosanitary Certificate Requirements:

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

The *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".

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

1. Entry conditions for *Elaeis* seeds for sowing from approved exporting countries

(i) Pests of *Elaeis*

Coconut cadang-cadang viroid

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

(ii) Approved exporting countries

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

(iii) Documentation

Phytosanitary certificate: a completed phytosanitary certificate issued by the NPPO of the exporting country must accompany all consignments of *Elaeis* seeds for sowing imported into New Zealand.

(iv) Phytosanitary requirements

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

(v) Additional declarations to the phytosanitary certificate

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

"The *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*.

Eriobotrya

Note: These entry conditions only apply to species in the Plants Biosecurity Index listed under Import Specifications for Seed as “see 155.02.05 under *Eriobotrya*”.

GENERAL CONDITIONS:

Countries: All

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

Entry Conditions: Basic; PLUS

OPTION 1

- 1. A prior permit to import is required:**
- 2. 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

Fagus

Note: These entry conditions only apply to species in the Plants Biosecurity Index listed under Import Specifications for Seed as “see 155.02.05 under *Fagus*”.

GENERAL CONDITIONS:

For the approved plant species for which **NO** species specific import health standards have been developed, the following conditions apply:

Countries: All

Quarantine Pests: Tortricidae

Entry Conditions: Basic; PLUS

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

Fragaria

Note: These entry conditions only apply to species in the Plants Biosecurity Index listed under Import Specifications for Seed as “see 155.02.05 under *Fragaria*”.

GENERAL CONDITIONS:

Countries: All

Quarantine Pests: Raspberry ringspot virus; Tobacco rattle virus; Tomato black ring virus;
Tomato ringspot virus

Entry Conditions: Basic; PLUS

1. A prior permit to import is required:

PEQ: Level 3

Minimum Period: 1 growing season

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

1. Entry conditions for *Glycine* seeds for sowing from approved exporting countries

(i) Pests of Glycine

Peronospora manshurica; *Trogoderma* spp.

(ii) Approved exporting countries

All countries

(iii) Documentation

Phytosanitary certificate: a completed phytosanitary certificate issued by the national plant protection organisation (NPPO) of the exporting country must accompany all consignments of *Glycine* seeds for sowing that are imported into New Zealand.

Genetically modified seed test certificate: MAF requires that all consignments of *Glycine max* (soybean) that are imported into New Zealand are tested for contamination with unapproved genetically modified seeds, see (vi) in this schedule.

Import permit: an import permit is required only for consignments of seeds that must undergo post-entry quarantine as described in section 4 of this schedule “Seed imported under permit into post-entry quarantine”. The permit should be obtained prior to the seed arriving at the New Zealand border.

(iv) Phytosanitary requirements

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

The *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, MAF may evaluate other treatments and if effective, will approve these treatments and add them to this schedule.

(v) Additional declarations to the phytosanitary certificate

If satisfied that the pre-shipment activities have been undertaken, the exporting country NPPO must confirm this by **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*.

(vi) Sampling and testing for adventitious contamination of *Glycine max* seed consignments with unapproved genetically modified seeds

MAF 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. Alternatively, the seeds must be sourced from countries that MAF has granted area freedom from commercial production 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 testing and sampling for the presence of unapproved GM seeds are specified in the *Protocol for testing imports of Glycine max seed for sowing for the presence of genetically modified seed*. The protocol includes three further modified options for importers of small quantities (defined as weighing less than 0.5 kg per line) of seeds for cultivar trials and/or multiplication.

Testing may be conducted by facilities approved by MAF 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 MAF-approved facility) must accompany the consignment imported into New Zealand. MAF will examine the test certificates on arrival to confirm that they reconcile with the actual consignment. Importers must ensure that MAF has access to all pertinent testing records held by MAF-approved testing facilities for audit purposes.

If consignments arrive at the New Zealand border without having been tested for the presence of unapproved GM seeds, MAF 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. Any consignment held at the New Zealand border that is tested and found to contain unapproved GM seeds will not be permitted to enter New Zealand and will be re-shipped or destroyed.

The protocol, the Standard, and a list of MAF-approved facilities for testing for the presence of GM material in *Glycine max* are located at the following address on the MAF web site:

<http://www.biosecurity.govt.nz/imports/plants/genetically-modified-organisms/plants-seeds.htm>

Seed imported under permit into post-entry quarantine

If a phytosanitary certificate with the required additional declarations can not be obtained, *Glycine* seed may be imported under permit into post-entry quarantine in a transitional facility accredited to MAF standard PBC-NZ-TRA-PQCON: *Specification for the Registration of a*

Plant Quarantine or Containment Facility, and Operator. The seed will be grown for a minimum period of one growing season and will be tested or inspected for regulated pests at the expense of the importer. Such seed must be accompanied by an import permit directing the seed from the border to the transitional facility. The permit should be obtained prior to the seed arriving at the New Zealand border.

Gossypium

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

GENERAL CONDITIONS:

Countries: Australia

Quarantine Pests: *Anthonomus grandis*; *Trogoderma* spp.

Entry Conditions: Basic; PLUS

Phytosanitary certificate: 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: an import permit is required for all consignments of *Gossypium hirsutum* seeds for sowing exported to New Zealand. The permit should be obtained prior to the seed arriving at the New Zealand border (see section 1.4). 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 of Agriculture and Forestry will develop a specific testing protocol for *Gossypium hirsutum* seeds for sowing if a significant number of consignments are exported to New Zealand.

Helianthus

Note: These entry conditions only apply to species in the Plants Biosecurity Index listed under Import Specifications for Seed as “see 155.02.05 under *Helianthus*”.

GENERAL CONDITIONS:

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.

Entry Conditions: **Basic; PLUS**

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 helianthii* 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".

(Continued next page)

Helianthus

(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

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

Entry conditions for *Hordeum* seeds for sowing from approved exporting countries

These requirements are in addition to the Basic requirements set out in Section 2 of the standard.

(i) Pests of *Hordeum*

Refer to “Pest List for *Hordeum*”.

(ii) Approved exporting 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.

(iii) Documentation

A completed phytosanitary certificate issued by the NPPO of the exporting country must accompany all *Hordeum* seeds for sowing exported to New Zealand.

(iv) Phytosanitary requirements

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

The *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 MAF’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. *striaefaciens*, *Rathayibacter tritici*, *Xanthomonas campestris* pv. *undulosa*, *Xanthomonas translucens* pv. *translucens*) 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 MAF’s “Approved Treatments for *Hordeum*”;

AND

- sourced from a “Pest free area” free from *Tilletia controversa*

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 treat with one of the fungicide combinations described in MAF’s “Approved Treatments for *Hordeum*”.

(v) Additional declarations to the phytosanitary certificate

Hordeum

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 regulated bacteria and viruses) _____, and/or a “Pest free place of production”, free from _____ (name of the regulated bacteria and viruses) _____.

AND

EITHER

- sourced from a “Pest free area”, free from _____ (name of the regulated fungi) _____;
- 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 [choose ONE option]."

Pest List for *Hordeum*

REGULATED PESTS (actionable)

Insect

Insecta

Blattodea

Blattidae

Blatta orientalis

oriental cockroach

Coleoptera

Curculionidae

Caulophilus oryzae

broadnosed grain weevil

Dermestidae

Trogoderma granarium

khapra beetle

Trogoderma grassmani

trogoderma beetle

Trogoderma inclusum

trogoderma beetle

Trogoderma irroratum

trogoderma beetle

Trogoderma ornatum

trogoderma beetle

Trogoderma simplex

dermestid beetle

Trogoderma sternale

dermestid beetle

Trogoderma variabile

warehouse beetle

Languriidae

Pharaxonotha kirschii

Mexican grain beetle

Tenebrionidae

Embaphion muricatum

false wireworm

Latheticus oryzae

longheaded flour beetle

Palorus ratzeburgi

smalleyed flour beetle

Palorus subdepressus

depressed flour beetle

Tribolium audax

American black flour beetle

Tribolium destructor

dark flour beetle

Lepidoptera

Tineidae

Haplotinea insectella

casemaking moth

Tinea fictrix

casemaking moth

Mite

Arachnida

Acarina

Acaridae

Acarophenax tribolii [Animals Biosecurity]

grain mite

Eriophyidae

Aceria tosichella

wheat curl mite

Aceria tulipae [vector]

wheat curl mite

Pyemotidae

Pyemotes herfsi

straw itch mite

Fungus

Basidiomycota: Ustomycetes

Tilletiaceae

<i>Tilletia controversa</i>	dwarf bunt
mitosporic fungi (Hyphomycetes)	
Hyphomycetales	
Moniliaceae	
<i>Cephalosporium gramineum</i>	stripe
Tuberculariales	
Tuberculariaceae	
<i>Fusarium longipes</i>	fusarium head blight
Bacterium	
Corynebacteriaceae	
<i>Rathayibacter tritici</i>	yellow ear rot
Pseudomonadaceae	
<i>Pseudomonas syringae</i> pv. <i>striaefaciens</i>	bacterial stripe blight
<i>Xanthomonas campestris</i> pv. <i>undulosa</i>	leaf streak
<i>Xanthomonas translucens</i> pv. <i>translucens</i>	bacterial leaf streak
Virus	
<i>Barley mosaic virus</i>	-
<i>High plains virus</i>	-

Approved Treatments for *Hordeum*

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) Carboxin at 0.8 g a.i. per kg of seed and Imazalil at 0.05 g a.i. per k.g 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 0.23 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, MAF may evaluate other treatments and if effective, will approve these treatments and add them to this schedule.

Humulus

Note: These 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*”.

GENERAL CONDITIONS:

Countries: All

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

Entry Conditions: Basic; PLUS

A prior permit to import is required:

PEQ: Level 3

Minimum Period: 1 growing season

Note: These entry conditions only apply to species in the Plants Biosecurity Index listed under Import Specifications for Seed as “see 155.02.05 under *Juglans*”.

GENERAL CONDITIONS:

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

Entry Conditions: Basic; PLUS

A prior permit to import is 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:

(Continued next page)

Juglans

Temperature	Rate (g/m ³)	Time (hours)	Pressure
15 - 21°C	32	12	Atmospheric
21°C or above	16	12	Atmospheric
15 - 21°C	48	1.5	91 kpa vacuum
21°C or above	48	1.0	91 kpa vacuum

Note: These entry conditions only apply to species in the Plants Biosecurity Index listed under Import Specifications for Seed as “see 155.02.05 under *Lablab*”.

GENERAL CONDITIONS:

Countries: All

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

Entry Conditions: Basic; PLUS

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".

Note: These entry conditions only apply to species in the Plants Biosecurity Index listed under Import Specifications for Seed as “see 155.02.05 under *Lavandula*”.

GENERAL CONDITIONS:

Countries: All

Quarantine Pests: *Coniothyrium lavandulae*; *Phoma lavandulae*

Entry Conditions: Basic; PLUS

Phytosanitary Certificate Requirements:

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

The *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".

Note: These entry conditions only apply to species in the Plants Biosecurity Index listed under Import Specifications for Seed as “see 155.02.05 under *Lens*”.

1. Entry conditions for *Lens* seeds for sowing from approved exporting countries

(i) Pests of *Lens*

Trogoderma granarium.

(ii) Approved exporting countries

All countries

(iii) Documentation

Phytosanitary certificate: a completed phytosanitary certificate issued by the NPPO of the exporting country must accompany all consignments of *Lens* seeds for sowing imported into New Zealand.

(iv) Phytosanitary requirements

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

(v) Additional declarations to the phytosanitary certificate

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

"The *Lens* seeds for sowing in this consignment have:

- inspected in accordance with appropriate official procedures and found to be free of *Trogoderma granarium*.

Lithocarpus densiflorus

Note: These 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*”.

GENERAL CONDITIONS:

For the approved plant species for which **NO** species specific import health standards have been developed, the following conditions apply:

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

Quarantine Pests: *Ceratocystis fagacearum*; Tortricidae

Entry Conditions: Basic; PLUS

1. A prior permit to import is required:

PEQ: Level 1
Minimum Period: 1 growing season
Isolation: 50 m

2. 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

Note: These entry conditions only apply to species in the Plants Biosecurity Index listed under Import Specifications for Seed as “see 155.02.05 under *Livistona*”.

1. Entry conditions for *Livistona* seeds for sowing from approved exporting countries

(i) *Pests of Livistona*

Coconut cadang-cadang viroid

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

(ii) *Approved exporting countries*

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

(iii) *Documentation*

Phytosanitary certificate: a completed phytosanitary certificate issued by the NPPO of the exporting country must accompany all consignments of *Livistona* seeds for sowing imported into New Zealand.

(iv) *Phytosanitary requirements*

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

(v) *Additional declarations to the phytosanitary certificate*

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

"The *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*.

Lophophora williamsii

Note: These entry conditions only apply to species in the Plants Biosecurity Index listed under Import Specifications for Seed as “see 155.02.06 under *Lophophora williamsii*”.

GENERAL CONDITIONS:

Countries: All

Entry Conditions: Basic; PLUS:

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 of Agriculture and Forestry, 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

Note: These entry conditions only apply to species in the Plants Biosecurity Index listed under Import Specifications for Seed as “see 155.02.05 under *Lotus*”.

GENERAL CONDITIONS:

Countries: All

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

Entry Conditions: Basic; PLUS

Phytosanitary Certificate Additional Declaration:

"*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

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

GENERAL CONDITIONS:

Countries: All

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

Entry Conditions: Basic; PLUS

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:

Temperature	Rate (g/m ³)	Time (hours)	Pressure
15 - 21°C	32	12	atmospheric
21°C or above	16	12	atmospheric
15 - 21°C	48	1.5	91 kpa vacuum
21°C or above	48	1.0	91 kpa vacuum

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

1. Entry conditions for *Malus* seeds for sowing from approved exporting countries

(i) Pests of Malus

Apple scar skin viroid; Monilinia fructigena; Sowbane mosaic virus; Tomato bushy stunt virus.

(ii) Approved exporting countries

All countries

(iii) Documentation

Phytosanitary certificate: a completed phytosanitary certificate issued by the NPPO of the exporting country must accompany all consignments of *Malus* seeds for sowing imported into New Zealand.

Import permit: an import permit must be obtained from the MAF prior to the *Malus* seeds arriving at the New Zealand border.

(iv) Phytosanitary requirements

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

The *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 MAF.

(v) Post-entry quarantine requirements

All *Malus* seeds must be imported under permit into post-entry quarantine in a Level 3 quarantine facility accredited to MAF standard PBC-NZ-TRA-PQCON: *Specification for the Registration of a Plant Quarantine or Containment Facility, and Operator*. The seed will be grown for a minimum period of 6 months and will be tested or inspected for regulated pests at the expense of the importer.

Inspection, testing and treatment requirements for *Malus*

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

Notes:

- Indicator hosts: *Chenopodium amaranticolor* (Ca), *C. quinoa* (Cq) and *Nicotiana clevelandi* (Nc).
- Enzyme linked immunosorbent assay (ELISA).
- Polymerase chain reaction (PCR).
- With prior notification, MAF will accept other internationally recognised testing methods.
- 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.
- Indicator plants must be grown under appropriate temperatures.
- Indicator plants 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 plants at least once per week for signs of pest and disease.
- Inspect inoculated herbaceous indicator plants at least twice per week for symptoms of virus infection.
- PCR and ELISA need to be validated using positive controls/reference material prior to use in quarantine testing.
- At least two plants of each indicator species unless otherwise stated must be used in mechanical inoculation tests.
- Positive and negative controls must be used in ELISA tests.
- 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.

Reference

Hadidi A, Yang X, 1990. Detection of pome fruit viroids by enzymatic cDNA amplification. *Journal of Virological Methods* 30, 261-269.

Mangifera

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

GENERAL CONDITIONS:

Countries: All

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

Entry Conditions: Basic; PLUS

1. A prior permit to import is required:

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

2. 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

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

1. Entry conditions for *Medicago* seeds for sowing from approved exporting countries

(i) Pests of *Medicago*

Pea early browning virus; *Peanut stunt virus*; *Trogoderma granarium*; *Xanthomonas campestris* pv. *alfalfae*.

(ii) Approved exporting countries

All countries

(iii) Documentation

Phytosanitary certificate: a completed phytosanitary certificate issued by the NPPO of the exporting country must accompany all consignments of *Medicago* seeds for sowing imported into New Zealand.

Genetically modified seed test certificate: MAF requires that all consignments of *Medicago sativa* (alfalfa/lucerne) that are imported into New Zealand are tested for contamination with unapproved genetically modified seeds, see (vi) in this schedule.

(iv) Phytosanitary requirements

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

(v) Additional declarations to the phytosanitary certificate

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

"The *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. *alfalfae*.

(vi) Sampling and testing for adventitious contamination of *Medicago sativa* seed consignments with unapproved genetically modified seeds

MAF 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. Alternatively, the seeds must be sourced from countries that MAF has granted area freedom

from commercial production 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 testing and sampling for the presence of unapproved GM seeds are specified in the *Protocol for testing imports of Medicago sativa seed for sowing for the presence of genetically modified seed*. The protocol includes three further modified options for importers of small quantities (defined as weighing less than 0.1 kg per line) of seeds for cultivar trials and/or multiplication.

Testing may be conducted by facilities approved by MAF 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 MAF-approved facility) must accompany the consignment imported into New Zealand. MAF will examine the test certificates on arrival to confirm that they reconcile with the actual consignment. Importers must ensure that MAF has access to all pertinent testing records held by MAF-approved testing facilities for audit purposes.

If consignments arrive at the New Zealand border without having been tested for the presence of unapproved GM seeds, MAF 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. Any consignment held at the New Zealand border that is tested and found to contain unapproved GM seeds will not be permitted to enter New Zealand and will be re-shipped or destroyed.

The protocol, the Standard, and a list of MAF-approved facilities for testing for the presence of GM material in *Medicago sativa* are located at the following address on the MAF web site: <http://www.biosecurity.govt.nz/imports/plants/genetically-modified-organisms/plants-seeds.htm>

Nicotiana tabacum

Note: These 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*”.

GENERAL CONDITIONS:

Countries: All

Quarantine Pests: *Peronospora tabacina*

Entry Conditions: Basic; PLUS

OPTION 1:

Phytosanitary Certificate Additional declarations:

"*Peronospora tabacini* 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 tabacini* 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 0.7g 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.

(Continued next page)

OPTION 2:

1. The seed is to be untreated before despatch.
2. The seed is to be consigned to a Ministry of Agriculture and Forestry Biosecurity Authority approved Seed Testing Station to test for *Peronospora tabacini*, 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:

A prior permit to import is required:

PEQ: Level 3
Minimum Period: 1 growing season

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

GENERAL CONDITIONS:

Countries: All

Quarantine Pests: *Ustilago vinosa*

Entry Conditions: Basic; PLUS

Phytosanitary Certificate Requirements:

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

The *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 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. No additional declarations are required.

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

GENERAL CONDITIONS:

Countries: All

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

Entry Conditions: Basic; PLUS

Phytosanitary Certificate Requirements:

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

The *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

Note: These entry conditions only apply to species in the Plants Biosecurity Index listed under Import Specifications for Seed as “see 155.02.06 under *Papaver somniferum*”.

GENERAL CONDITIONS:

Countries: All

Entry Conditions: Basic; PLUS

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.

**Director General of Health
Ministry of Health
P O Box 5013
Wellington
Attention: Advisor, Controlled Drug Licensing
Telephone: 04 496 2438**

Note: These entry conditions only apply to species in the Plants Biosecurity Index listed under Import Specifications for Seed as “see 155.02.05 under *Persea*”.

GENERAL CONDITIONS:

Countries: USA

Quarantine Pests: Avocado sunblotch viroid; Blackstreak

Entry Conditions: Basic; PLUS

A prior permit to import is required:

PEQ: Level 3

Minimum Period: 1 growing season

Phaseolus

Note: These entry conditions only apply to species in the Plants Biosecurity Index listed under Import Specifications for Seed as “see 155.02.05 under *Phaseolus*”.

Entry conditions for *Phaseolus* seeds for sowing from approved exporting countries

These requirements are in addition to the Basic requirements set out in Section 2 of the standard.

(i) *Pests of Phaseolus*

Refer to “Pest List for *Phaseolus*”.

(ii) *Approved exporting 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.

(iii) *Documentation*

A completed phytosanitary certificate issued by the NPPO of the exporting country must accompany all *Phaseolus* seeds for sowing exported to New Zealand.

(iv) *Phytosanitary requirements*

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

The *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 MAF’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 MAF’s “Approved Treatments for *Phaseolus*”.

(v) Additional declarations to the phytosanitary certificate

If satisfied that the pre-shipment activities have been undertaken, the exporting country NPPO must confirm this by **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) _____."

Pest List for *Phaseolus*

REGULATED PESTS (actionable)

Insect

Insecta

Coleoptera

Bostrichidae

Prostephanus truncatus larger grain borer

Bruchidae

Acanthoscelides argillaceus bean weevil

Acanthoscelides obvelatus bruchid beetle

Bruchidius atrolineatus seed beetle

Bruchidius incarnatus seed beetle

Bruchus pisorum pea weevil

Callosobruchus analis cowpea weevil

Callosobruchus maculatus cowpea weevil

Callosobruchus phaseoli cowpea weevil

Zabrotes subfasciatus Mexican bean weevil

Lepidoptera

Pyralidae

Etiella grisea pod borer

Etiella grisea drososcia pod borer

Etiella zinckenella limabean pod borer

Tortricidae

Cydia fabivora pod moth

Matsumuraeses phaseoli Adzuki pod worm

Fungus

Ascomycota

Dothideales

Elsinoaceae

Elsinoe phaseoli scab

Pleosporaceae

Cochliobolus miyabeanus (anamorph -

Bipolaris oryzae)

mitosporic fungi (Coelomycetes)

Sphaeropsidales

Sphaerioidaceae

Phoma exigua var. *diversispora* ascochyta leaf spot

Bacterium

Corynebacteriaceae

Curtobacterium flaccumfaciens pv.

flaccumfaciens bacterium wilt

Virus

Artichoke yellow ringspot virus -

Bean common mosaic virus [blackeye cowpea -

mosaic strain]

<i>Broad bean mottle virus</i>	-
<i>Cowpea severe mosaic virus</i>	-
<i>Pea early-browning virus</i>	-
<i>Peanut mottle virus</i>	-
<i>Peanut stunt virus</i>	-
<i>Southern bean mosaic virus</i>	-
<i>Tomato black ring virus</i>	-

Approved Treatments for *Phaseolus*

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, MAF may evaluate other treatments and if effective, will approve these treatments and add them to this schedule.

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

1. Entry conditions for *Phoenix* seeds for sowing from approved exporting countries

(i) Pests of Phoenix

Coconut cadang-cadang viroid and *Fusarium oxysporum* f. sp. *canariensis*

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

(ii) Approved exporting countries

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

(iii) Documentation

Phytosanitary certificate: a completed phytosanitary certificate issued by the NPPO of the exporting country must accompany all consignments of *Phoenix* seeds for sowing imported into New Zealand.

(iv) Phytosanitary requirements

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

1. 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.

2. 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*.

(v) Additional declarations to the phytosanitary certificate

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

"The *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

Please refer to the Generic Import Health Standard for Seed for Sowing of *Pinus* spp. from All Countries - 02 March 2001 located at the following website:-

<http://www.maf.govt.nz/biosecurity/imports/forests/>

Pisum

Note: These entry conditions only apply to species in the Plants Biosecurity Index listed under Import Specifications for Seed as “see 155.02.05 under *Pisum*”.

Entry conditions for *Pisum* seeds for sowing from approved exporting countries

These requirements are in addition to the Basic requirements set out in Section 2 of the standard.

(i) Pests of *Pisum*

Refer to “Pest List for *Pisum*”.

(ii) Approved exporting 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.

(iii) Documentation

A completed phytosanitary certificate issued by the NPPO of the exporting country must accompany all *Pisum* seeds for sowing exported to New Zealand.

(iv) Phytosanitary requirements

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

The *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 MAF’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 MAF’s “Approved Treatments for *Pisum*”.

Pisum

(v) Additional declarations to the phytosanitary certificate

If satisfied that the pre-shipment activities have been undertaken, the exporting country NPPO must confirm this by **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*.

Pest List for *Pisum*

REGULATED PESTS (actionable)

Insect

Insecta

Coleoptera

Bruchidae

<i>Acanthoscelides zeteki</i>	bruchid beetle
<i>Bruchidius atrolineatus</i>	seed beetle
<i>Bruchidius incarnatus</i>	seed beetle
<i>Bruchidius quinqueguttatus</i>	bruchid beetle
<i>Bruchus affinis</i>	bruchid beetle
<i>Bruchus emarginatus</i>	Mediterranean pulse beetle
<i>Bruchus ervi</i>	bruchid beetle
<i>Bruchus lentis</i>	bruchid beetle
<i>Bruchus pisorum</i>	pea weevil
<i>Bruchus rufimanus</i>	broad bean weevil
<i>Bruchus tristis</i>	bruchid beetle
<i>Callosobruchus analis</i>	cowpea weevil
<i>Callosobruchus chinensis</i>	oriental cowpea weevil
<i>Callosobruchus maculatus</i>	cowpea weevil

Dermestidae

<i>Trogoderma granarium</i>	khapra beetle
-----------------------------	---------------

Lepidoptera

Lycaenidae

<i>Euchrysops cnejus</i>	blue butterfly
--------------------------	----------------

Noctuidae

<i>Spodoptera praefica</i>	western yellowstriped armyworm
----------------------------	--------------------------------

Pyralidae

<i>Etiella zinckenella</i>	limabean pod borer
----------------------------	--------------------

Tortricidae

<i>Cydia nigricana</i>	pea moth
------------------------	----------

Fungus

mitosporic fungi (Hyphomycetes)

Hyphomycetales

Dematiaceae

<i>Cladosporium cladosporioides</i> f. <i>pisicola</i>	cladosporium blight
--	---------------------

Virus

<i>Broad bean mottle virus</i>	-
<i>Broad bean stain virus</i>	-
<i>Clover yellow mosaic virus</i>	-
<i>Pea early-browning virus</i>	-

Pea enation mosaic virus -
Peanut mottle virus -
Peanut stunt virus -

Approved Treatments for *Pisum*

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.
- 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, MAF may evaluate other treatments and if effective, will approve these treatments and add them to this schedule.

Populus

Note: These entry conditions only apply to species in the Plants Biosecurity Index listed under Import Specifications for Seed as “see 155.02.05 under *Populus*”.

GENERAL CONDITIONS:

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.

Entry Conditions: **Basic; PLUS**

A prior permit to import is 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

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

1. Entry conditions for *Prunus* seeds for sowing from approved exporting countries

(i) Pests of Prunus

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*.

(ii) Approved exporting countries

All countries

(iii) Documentation

Phytosanitary certificate: a completed phytosanitary certificate issued by the NPPO of the exporting country must accompany all consignments of *Prunus* seeds for sowing imported into New Zealand.

Import permit: an import permit must be obtained from the MAF prior to the *Prunus* seeds arriving at the New Zealand border.

(iv) Phytosanitary requirements

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

The *Prunus* 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*.

(v) Additional declarations to the phytosanitary certificate

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

"The *Prunus* seeds for sowing in this consignment have been:

- inspected in accordance with appropriate official procedures and found to be free of *Eurytoma amygdali*.

(vi) Post-entry quarantine requirements

All *Prunus* seeds must be imported under permit into post-entry quarantine in a Level 3 quarantine facility accredited to MAF standard PBC-NZ-TRA-PQCON: *Specification for the Registration of a Plant Quarantine or Containment Facility, and Operator*. The seed will be grown for a minimum period of 6 months and will be tested or inspected for regulated pests at the expense of the importer.

Inspection, testing and treatment requirements for *Prunus*

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

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, MAF 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.
- Spiegel S, Scott SW, BowmanVance V, Tam Y, Galiakparov NN, Rosner A, 1996. Improved detection of prunus necrotic ringspot virus by the polymerase chain reaction. *European Journal of Plant Pathology* **102**, 681-685.
- Wetzel T, Candresse T, Ravelonandro M, Dunez J, 1991. A polymerase chain-reaction assay adapted to plum pox potyvirus detection. *Journal of Virological Methods* **33**, 355-365.

Pseudotsuga

Please refer to the Generic Import Health Standard for Seed for Sowing of *Pseudotsuga menziesii* from All Countries - 02 March 2001

<http://www.maf.govt.nz/biosecurity/imports/forests/>

Psophocarpus

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

GENERAL CONDITIONS:

Countries: All

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

Entry Conditions: Basic; PLUS

For Seed in Pods:

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".

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

1. Entry conditions for *Pyrus* seeds for sowing from approved exporting countries

(i) Pests of *Pyrus*

Apple scar skin viroid; Monilinia fructigena; Tomato bushy stunt virus; Pear bark measle.

(ii) Approved exporting countries

All countries

(iii) Documentation

Phytosanitary certificate: a completed phytosanitary certificate issued by the NPPO of the exporting country must accompany all consignments of *Pyrus* seeds for sowing imported into New Zealand.

Import permit: an import permit must be obtained from the MAF prior to the *Pyrus* seeds arriving at the New Zealand border.

(iv) Phytosanitary requirements

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

The *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 MAF.

(v) Post-entry quarantine requirements

All *Pyrus* seeds must be imported under permit into post-entry quarantine in a Level 3 quarantine facility accredited to MAF standard PBC-NZ-TRA-PQCON: *Specification for the Registration of a Plant Quarantine or Containment Facility, and Operator*. The seed will be grown for a minimum period of 6 months and will be tested or inspected for regulated pests at the expense of the importer.

Inspection, testing and treatment requirements for *Pyrus*

ORGANISM TYPES	MAF ACCEPTABLE METHODS (See notes below)	Comments
Fungi		
<i>Monilinia fructigena</i>	Growing season inspection in PEQ for disease symptom expression.	
Viroid		
<i>Apple scar skin viroid</i>	PCR using the method of Hadidi <i>et al.</i> (1990).	
Virus		
<i>Tomato bushy stunt virus</i>	ELISA (Agdia) or PCR AND herbaceous indicators Cq, Nc.	
Unknown etiology		
Pear bark measles	Growing season inspection in PEQ for disease expression.	

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, MAF 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

Hadidi A, Yang X, 1990. Detection of pome fruit viroids by enzymatic cDNA amplification. *Journal of Virological Methods* 30, 261-269.

Quercus

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

GENERAL CONDITIONS:

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

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

Entry Conditions: Basic; PLUS

1. A prior permit to import is required:

2. OPTION 1:

PEQ: Level 1
Minimum Period: 1 growing season
Isolation: 50 m

Phytosanitary Certificate Additional Declarations:

- (a) "*Ceratocystis fagacearum* is not known to occur in _____ (the country or state where the seed was produced) _____".
- (b) "The seed has been taken from trees that have been officially inspected during active growth and no disease caused by *Cryphonectria parasitica* was detected".
- (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

(Continued next page)

Quercus

- (d) "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:

Temperature	Rate (g/m ³)	Time (hours)	Pressure
15 - 21°C	32	12	atmospheric
21°C or above	16	12	atmospheric
15 - 21°C	48	1.5	91 kpa vacuum
21°C or above	48	1.0	91 kpa vacuum

OPTION 2:

PEQ: Level 3
Minimum Period: 1 growing season

Phytosanitary Certificate Additional Declaration:

"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".

Ribes

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

GENERAL CONDITIONS:

Countries: All

Quarantine Pests: Tobacco rattle virus; Tomato ringspot virus

Entry conditions: Basic; PLUS

A prior permit to import is required:

PEQ: Level 3

Minimum Period: 1 growing season

Rubus idaeus

Note: These 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*”.

GENERAL CONDITIONS:

Countries: All

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

Entry Conditions: Basic; PLUS

A prior permit to import is required:

PEQ: Level 3

Minimum Period: 1 growing season

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

GENERAL CONDITIONS:

Countries: All

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

Entry Conditions: Basic; PLUS

Phytosanitary Certificate Requirements:

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

The *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

Note: These 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*”.

GENERAL CONDITIONS:

Countries: All

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

Entry Conditions: Basic; PLUS

A prior permit to import is required:

PEQ: Level 3

Minimum Period: 1 growing season

Sorghum

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

GENERAL CONDITIONS:

Countries: Australia, USA

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

Entry Conditions: **Basic; PLUS**

Phytosanitary Certificate Requirements:

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

The *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".

Stenotaphrum

Note: These entry conditions only apply to species in the Plants Biosecurity Index listed under Import Specifications for Seed as “see 155.02.05 under *Stenotaphrum*”.

GENERAL CONDITIONS:

Countries: All

Quarantine Pests: Panicum mosaic virus

Entry Conditions: Basic; PLUS

A prior permit to import is required:

PEQ: Level 3

Minimum Period: 1 growing season

Trigonella foenum-graecum

Note: These 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*”.

GENERAL CONDITIONS:

Countries: All

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

Entry Conditions: Basic; PLUS

Phytosanitary Certificate Requirements:

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

The *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

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

Entry conditions for *Triticum* seeds for sowing from approved exporting countries

These requirements are in addition to the Basic requirements set out in Section 2 of the standard.

(i) Pests of *Triticum*

Refer to “Pest List for *Triticum*”.

(ii) Approved exporting 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.

(iii) Documentation

A completed phytosanitary certificate issued by the NPPO of the exporting country must accompany all *Triticum* seeds for sowing exported to New Zealand.

(iv) Phytosanitary requirements

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

The *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 MAF’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*, *Xanthomonas translucens* pv. *translucens*) 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 MAF’s “Approved Treatments for *Triticum*”;

AND

- 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 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 treat with one of the fungicide combinations described in MAF’s “Approved Treatments for *Triticum*”.

(v) Additional declarations to the phytosanitary certificate

If satisfied that the pre-shipment activities have been undertaken, the exporting country NPPO must confirm this by **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 regulated bacteria and viruses) _____, and/or a “Pest free place of production”, free from _____ (name of the regulated bacteria and viruses) _____.

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

EITHER

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

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 [choose ONE option]."

Pest List for *Triticum*

REGULATED PESTS (actionable)

Insect

Insecta

Blattodea

Blattidae

Blatta orientalis oriental cockroach

Coleoptera

Bostrichidae

Dinoderus distinctus bostrichid beetle

Prostephanus truncatus larger grain borer

Bruchidae

Callosobruchus chinensis oriental cowpea weevil

Curculionidae

Caulophilus oryzae broadnosed grain weevil

Dermestidae

Trogoderma glabrum khapra beetle

Trogoderma granarium khapra beetle

Trogoderma grassmani trogoderma beetle

Trogoderma inclusum trogoderma beetle

Trogoderma ornatum trogoderma beetle

Trogoderma simplex dermestid beetle

Trogoderma sternale dermestid beetle

Trogoderma variabile warehouse beetle

Languriidae

Pharaxonotha kirschii Mexican grain beetle

Tenebrionidae

Cynaesus angustus larger black flour beetle

Latheticus oryzae longheaded flour beetle

Palorus ratzeburgi smalleyed flour beetle

Palorus subdepressus depressed flour beetle

Tribolium audax American black flour beetle

Tribolium freemani flour beetle

Ulomoides dermestoides darkling beetle

Diptera

Cecidomyiidae

Contarinia pisi pea midge

Lepidoptera

Noctuidae

Faronta albilinea wheat head armyworm

Pyralidae

Corcyra cephalonica rice moth

Paralipsa gularis stored nut moth

Tineidae	
<i>Cephitinea colonella</i>	grain moth
<i>Haplotinea insectella</i>	casemaking moth
Psocoptera	
Liposcelidae	
<i>Troctes minutus</i>	psocid
Mite	
Arachnida	
Acarina	
Acaridae	
<i>Caloglyphus krameri</i>	-
<i>Michaelopus macfarlanei</i>	-
Eriophyidae	
<i>Aceria tulipae</i> (vector)	wheat curl mite
<i>Aceria tosichella</i>	wheat curl mite
Tarsonemidae	
<i>Tarsonemus granarius</i>	-
Tuckerellidae	
<i>Tuckerella ablutus</i>	-
unknown Acarina	
<i>Paratriophtydeus coineaurius</i>	-
Nematode	
Secernentea	
Tylenchida	
Anguinidae	
<i>Anguina tritici</i> [vector]	seed gall nematode
Fungus	
Basidiomycota: Ustomycetes	
Ustilaginales	
Tilletiaceae	
<i>Tilletia controversa</i>	dwarf bunt
<i>Tilletia indica</i>	karnal bunt
mitosporic fungi (Hyphomycetes)	
Hyphomycetales	
Dematiaceae	
<i>Alternaria triticina</i>	-
<i>Curvularia verruculosa</i>	-
Moniliaceae	
<i>Cephalosporium gramineum</i>	stripe
Corynebacteriaceae	
<i>Rathayibacter tritici</i>	yellow ear rot
Pseudomonadaceae	
<i>Xanthomonas campestris</i> pv. <i>undulosa</i>	leaf streak

Note: These entry conditions only apply to species in the Plants Biosecurity Index listed under Import Specifications for Seed as “see 155.02.05 under *Ulmus*”.

GENERAL CONDITIONS:

Countries: All

Quarantine Pests: Cherry leaf roll virus; Elm mottle virus

Entry Conditions: Basic; PLUS

Phytosanitary Certificate Additional Declaration:

"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

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

1. Entry conditions for *Vaccinium* seeds for sowing from approved exporting countries

(i) *Pests of Vaccinium*

Refer to “Pest List for *Vaccinium*”.

(ii) *Approved exporting countries*

All countries

(iii) *Documentation*

Phytosanitary certificate: a completed phytosanitary certificate issued by the NPPO of the exporting country must accompany all consignments of *Vaccinium* seeds for sowing imported into New Zealand.

Import permit: an import permit must be obtained from the MAF prior to the *Vaccinium* seeds arriving at the New Zealand border.

(iv) *Phytosanitary requirements*

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

The *Vaccinium* seeds for sowing have been

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

(v) *Post-entry quarantine requirements*

All *Vaccinium* seeds must be imported under permit into post-entry quarantine in a Level 3 quarantine facility accredited to MAF standard PBC-NZ-TRA-PQCON: *Specification for the Registration of a Plant Quarantine or Containment Facility, and Operator*. The seed will be grown for a minimum period of 6 months and will be tested or inspected for regulated pests at the expense of the importer.

Pest List for *Vaccinium*

REGULATED PESTS (actionable)

Fungus

Ascomycota

Diaporthales

Valsaceae

Diaporthe vaccinii (anamorph *Phomopsis vaccinii*) twig blight

Dothideales

Botryosphaeriaceae

Botryosphaeria vaccinii (anamorph *Phyllosticta elongata*) --

Leotiales

Sclerotiniaceae

Monilinia fructigena (anamorph *Monilia fructigena*) European brown rot

Monilinia vaccinii-corymbosi brown rot

Virus

family Bromoviridae

genus Ilarvirus

Blueberry shock virus -

family Comoviridae

genus Nepovirus

Blueberry leaf mottle virus -

Peach rosette mosaic virus -

Tomato ringspot virus [strains not in New Zealand] -

Inspection, testing and treatment requirements for *Vaccinium*

ORGANISM TYPES	MAF ACCEPTABLE METHODS (See notes below)	Comments
Fungi		
<i>Diaporthe vaccinii</i>	Growing season inspection in PEQ for disease symptom expression.	
<i>Botryosphaeria vaccinii</i>	Growing season inspection in PEQ for disease symptom expression.	
<i>Monilinia fructigena</i>	Growing season inspection in PEQ for disease symptom expression.	
<i>Monilinia vaccinii-corymbosi</i>	Growing season inspection in PEQ for disease symptom expression.	
Virus		
<i>Blueberry shock virus</i>	ELISA (Agdia) or PCR AND herbaceous indicators Nb, Nc.	
<i>Blueberry leaf mottle virus</i>	ELISA (Agdia) or PCR AND herbaceous indicators Cq, Nc.	
<i>Peach rosette mosaic virus</i>	ELISA (Agdia) or PCR AND herbaceous indicators Ca, Cq.	
<i>Tomato ringspot virus</i>	ELISA (Agdia) or PCR AND herbaceous indicators Cq, Nc.	

Notes:

10. Indicator hosts: *Chenopodium amaranticolor* (Ca), *C. quinoa* (Cq), and *Nicotiana benthamiana* (Na), *N. clevelandi* (Nc).
11. Enzyme linked immunosorbent assay (ELISA).
12. Polymerase chain reaction (PCR).
13. With prior notification, MAF will accept other internationally recognised testing methods.
14. 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.
15. Indicator plants must be grown under appropriate temperatures.
16. Indicator plants must be shaded for 12-24 hrs prior to inoculation.
17. Maintain post-inoculated indicator species under appropriate glasshouse conditions for at least 4 weeks.
18. Inspect plants at least once per week for signs of pest and disease.
19. Inspect inoculated herbaceous indicator plants at least twice per week for symptoms of virus infection.

Vaccinium

20. PCR and ELISA need to be validated using positive controls/reference material prior to use in quarantine testing.
21. At least two plants of each indicator species unless otherwise stated must be used in mechanical inoculation tests.
22. Positive and negative controls must be used in ELISA tests.
23. 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.

Vicia

Note: These entry conditions only apply to species in the Plants Biosecurity Index listed under Import Specifications for Seed as “see 155.02.05 under *Vicia*”.

Entry conditions for *Vicia* seeds for sowing from approved exporting countries

These requirements are in addition to the Basic requirements set out in Section 2 of the standard.

(i) *Pests of Vicia*

Refer to “Pest List for *Vicia*”.

(ii) *Approved exporting 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.

(iii) *Documentation*

A completed phytosanitary certificate issued by the NPPO of the exporting country must accompany all *Vicia* seeds for sowing exported to New Zealand.

(iv) *Phytosanitary requirements*

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

The *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 MAF’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*).

(v) *Additional declarations to the phytosanitary certificate*

If satisfied that the pre-shipment activities have been undertaken, the exporting country NPPO must confirm this by **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) _____.

Pest List for *Vicia*

REGULATED PESTS (actionable)

Insect

Insecta

Coleoptera

Bruchidae

<i>Bruchidius incarnatus</i>	seed beetle
<i>Bruchidius quinqueguttatus</i>	bruchid beetle
<i>Bruchus atomarius</i>	bruchid beetle
<i>Bruchus dentipes</i>	bruchid beetle
<i>Bruchus pisorum</i>	pea weevil
<i>Bruchus rufimanus</i>	broad bean weevil
<i>Callosobruchus chinensis</i>	oriental cowpea weevil
<i>Callosobruchus maculatus</i>	cowpea weevil
<i>Callosobruchus phaseoli</i>	cowpea weevil

Dermestidae

<i>Trogoderma granarium</i>	khapra beetle
-----------------------------	---------------

Tenebrionidae

<i>Tribolium destructor</i>	dark flour beetle
-----------------------------	-------------------

Diptera

Cecidomyiidae

<i>Contarinia pisi</i>	pea midge
------------------------	-----------

Lepidoptera

Lycaenidae

<i>Virachola livia</i>	pomegranate butterfly
------------------------	-----------------------

Virus

<i>Artichoke yellow ringspot virus</i>	-
<i>Broad bean mottle virus</i>	-
<i>Broad bean stain virus</i>	-
<i>Broad bean true mosaic virus</i>	-
<i>Clover yellow mosaic virus</i>	-
<i>Pea early-browning virus</i>	-
<i>Pea enation mosaic virus</i>	-
<i>Peanut stunt virus</i>	-
<i>Red clover vein mosaic virus</i>	-

Approved Treatments for *Vicia*

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, MAF may evaluate other treatments and if effective, will approve these treatments and add them to this schedule.

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

GENERAL CONDITIONS:

Countries: All

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

Entry Conditions: Basic; PLUS

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".

Note: These entry conditions only apply to species in the Plants Biosecurity Index listed under Import Specifications for Seed as “see 155.02.05 under *Zea*”.

Entry conditions for *Zea* seeds for sowing from approved exporting countries

These requirements are in addition to the Basic requirements set out in Section 2 of the standard.

(i) *Pests of Zea*

Refer to “Pest List for *Zea*”.

(ii) *Approved exporting countries*

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

(iii) *Documentation*

Phytosanitary certificate: A completed phytosanitary certificate issued by the NPPO of the exporting country must accompany all *Zea* seeds for sowing exported to New Zealand.

Genetically modified seed test certificate: MAF 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 unauthorized GM seeds. **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 unauthorized genetically modified (GM) seeds, re-shipment or destruction.

(iv) *Phytosanitary requirements*

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

The *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 MAF’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*, *Ustilago maydis*, *Peronosclerospora heteropogoni*, *Peronosclerospora maydis*, *Peronosclerospora philippinensis*, *Peronosclerospora sacchari*, *Peronosclerospora sorghi*, *Phaeocystostroma ambiguum*, *Sclerophthora rayssiae* var. *zeae*, *Rhizopus maydis*, *Stenocarpella macrospora* and *Cephalosporium maydis*).

OR

- treated with one of the fungicide combinations described in MAF’s “Approved Treatments for *Zea mays*”;

(v) Additional declarations to the phytosanitary certificate

If satisfied that the pre-shipment activities have been undertaken, the exporting country NPPO must confirm this by **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) _____;

(vi) Sampling and testing for adventitious presence of *Zea mays* seed consignments with unauthorized genetically modified seeds

MAF 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 representatively sampled, tested, and found to be free of unapproved GM seeds. 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 testing and sampling for the presence of unapproved GM seeds are specified in the *Protocol for testing imports of Zea mays seed for sowing for the presence of genetically modified seed*. The protocol includes three further modified options for importers of small quantities (defined as weighing less than 5 kg per line) of seeds for cultivar trials and/or multiplication.

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

If consignments arrive at the New Zealand border without having been tested for the presence

of unauthorized GM seeds, MAF will offer the importer the options of re-shipping or destroying the consignment, or having the consignment sampled and tested as above under the importer's expense. Only consignments found not to contain GM seeds will receive biosecurity clearance.

The protocol, the Standard, and a list of MAF-approved facilities for testing for the presence of GM material in *Zea mays* are located at the following address on the MAF website - <http://www.maf.govt.nz/biosecurity/imports/plants/genetically-modified-organisms/plants-seeds.htm>

Approved Testing and Treatment Requirements for *Zea mays*

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) 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 MAF 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 – MAF 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 0.01g 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, MAF may evaluate other treatments and if effective, will approve these treatments and add them to this schedule.

Note. Where the treatment can not be applied offshore, the seed consignment may be treated on arrival at a registered transitional facility (New Zealand Ministry of Agriculture and Forestry Regulatory Authority Standard 152.04.03F: *Requirements for holding and processing facilities for uncleared risk goods*).

References

Dange SRS, Payak MM, Renfro BL, 1978. Seed transmission of *Pseudomonas rubrilineans*, the incitant of bacterial leaf stripe of maize. *Indian Phytopathology*, 31(4):523-524.

Forster RL, Seifers DL, Strausbaugh CA, Jensen SG, Ball EM, Harvey TL, 2001. Seed transmission of the *High Plains virus* in sweet corn. *Plant Disease*, 85(7):696-699

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

Shepherd, L.M. 1999: Detection and transmission of *Clavibacter michiganensis* subsp. *nebraskensis* of corn. Ms Thesis, Iowa State University, Ames, IA.

Pest List for *Zea* (Seed for Sowing)

Scientific name	Organism type	Common name	Quarantine status	Measures to prevent entry	Actions on interception
<i>Acidovorax avenae</i> subsp. <i>avenae</i>	bacterium	bacterial blight	Regulated	6 or 7 or 8	3
<i>Clavibacter michiganensis</i> subsp. <i>nebraskensis</i>	Bacterium	Goss' bacterial wilt	Regulated	6 or 7 or 8	3
<i>Pantoea stewartii</i>	Bacterium	Stewart's bacterial wilt	Regulated	6 or 7 or 8	3
<i>Botryosphaeria zeae</i>	Fungus	grey ear rot	Regulated	5 or 7	3
<i>Cephalosporium maydis</i>	Fungus	-	Regulated	5 or 7	3
<i>Claviceps gigantea</i>	Fungus	ergot	Regulated	5 or 7	3
<i>Cochliobolus pallescens</i>	Fungus	maize leaf spot	Regulated	5 or 7	3
<i>Cochliobolus tuberculatus</i>	Fungus	leaf spot	Regulated	5 or 7	3
<i>Peronosclerospora heteropogoni</i>	Fungus	-	Regulated	5 or 7	3
<i>Peronosclerospora maydis</i>	Fungus	Java downy mildew	Regulated	5 or 7	3
<i>Peronosclerospora philippinensis</i>	Fungus	Philippine downy mildew	Regulated	5 or 7	3
<i>Peronosclerospora sacchari</i>	Fungus	-	Regulated	5 or 7	3
<i>Peronosclerospora sorghi</i>	Fungus	sorghum downy mildew	Regulated	5 or 7	3
<i>Phaeocystroma ambiguum</i>	Fungus	-	Regulated	5 or 7	3
<i>Rhizopus maydis</i>	Fungus	rhizopus seed rot	Regulated	5 or 7	3
<i>Sclerophthora rayssiae</i> var. <i>zeae</i>	Fungus	-	Regulated	5 or 7	3
<i>Stenocarpella macrospora</i>	Fungus	dry rot	Regulated	5 or 7	3
<i>Ustilago maydis</i>	Fungus	boil smut	Regulated	5 or 7	3
<i>Alphitobius laevigatus</i>	Insect	black fungus beetle	Regulated	2	3
<i>Attagenus unicolor</i>	Insect	black carpet beetle	Regulated	2	3
<i>Carpophilus freemani</i>	Insect	dried fruit beetle	Regulated	2	3
<i>Carpophilus lugubris</i>	Insect	dusky sap beetle	Regulated	2	3

<i>Cathartus quadricollis</i>	Insect	squarenecked grain beetle	Regulated	2	3
<i>Caulophilus oryzae</i>	Insect	broadnosed grain weevil	Regulated	2	3
<i>Corcyra cephalonica</i>	Insect	rice moth	Regulated	2	3
<i>Cryptophlebia leucotreta</i>	Insect	false codling moth	Regulated	2	3
<i>Cynaesus angustus</i>	Insect	larger black flour beetle	Regulated	2	3
<i>Dinoderus distinctus</i>	Insect	bostrichid beetle	Regulated	2	3
<i>Dinoderus minutus</i>	Insect	bamboo powderpost beetle	Regulated	2	3
<i>Doloessa viridis</i>	Insect	-	Regulated	2	3
<i>Euxesta stigmatias</i>	Insect	-	Regulated	2	3
<i>Gibbium psylloides</i>	Insect	shiny spider beetle	Regulated	2	3
<i>Glischrochilus quadrisignatus</i>	Insect	four-spotted sap beetle	Regulated	2	3
<i>Gnatocerus maxillosus</i>	insect	slenderhorned flour beetle	Regulated	2	3
<i>Latheticus oryzae</i>	Insect	longheaded flour beetle	Regulated	2	3
<i>Lepinotus reticulatus</i>	Insect	booklouse	Regulated	2	3
<i>Leptoglossus zonatus</i>	Insect	coreid bug	Regulated	2	3
<i>Liposcelis bostrychophilus</i>	Insect	booklouse	Regulated	2	3
<i>Liposcelis entomophilus</i>	Insect	grain psocid	Regulated	2	3
<i>Liposcelis paetus</i>	Insect	booklouse	Regulated	2	3
<i>Mussidia nigrivenella</i>	Insect	pyralid moth	Regulated	2	3
<i>Pagiocerus frontalis</i>	Insect	bark borer	Regulated	2	3
<i>Palorus ratzeburgi</i>	Insect	smalleyed flour beetle	Regulated	2	3
<i>Palorus subdepressus</i>	Insect	depressed flour beetle	Regulated	2	3
<i>Paralipsa gularis</i>	Insect	stored nut moth	Regulated	2	3
<i>Pharaxonotha kirschiI</i>	Insect	Mexican grain beetle	Regulated	2	3
<i>Prostephanus truncatus</i>	Insect	larger grain borer	Regulated	2	3
<i>Pyroderces rileyi</i>	Insect	pink scavenger caterpillar	Regulated	2	3
<i>Sesamia calamistis</i>	Insect	pink stalk borer	Regulated	2	3
<i>Sesamia nonagrioides</i>	Insect	pink borer	Regulated	2	3

<i>Teretriosoma nigrescens</i>	Insect	-	Regulated	2	3
<i>Tribolium freemani</i>	Insect	flour beetle	Regulated	2	3
<i>Trogoderma glabrum</i>	Insect	khapra beetle	Regulated	2	3
<i>Trogoderma granarium</i>	Insect	khapra beetle	Regulated	2	3
<i>Trogoderma inclusum</i>	Insect	trogoderma beetle	Regulated	2	3
<i>Trogoderma variabile</i>	Insect	warehouse beetle	Regulated	2	3
<i>Acaropsellina sollers</i>	Mite	-	Regulated	2	3
<i>High plains virus</i>	Virus	-	Regulated	6 or 7 or 8	3
<i>Maize chlorotic mottle virus</i>	Virus	-	Regulated	6 or 7 or 8	3
<i>Maize dwarf mosaic virus</i>	Virus	MDMV	Regulated	6 or 7 or 8	3
<i>Striga asiatica</i>	Weed	witch-weed	Regulated	2	3
<i>Striga hermonthica</i>	Weed	witch-weed	Regulated	2	3

Measures to prevent entry and establishment

1. No measures.
2. Seed and associated packaging inspected and found to be free from visually detectable regulated pests.
3. Consignments are free from extraneous material, e.g., soil, plant residue that may carry regulated pests.
4. Undergone effective pre-export treatment for regulated pests.
5. Undergone specified pre-export treatment for regulated pests.
6. Undergone specified pre-export testing for regulated pests.
7. Sourced from a pest free area.
8. Sourced from a pest free place of production.

Actions on interception

- 1 No action.
- 2 Removal of extraneous material, e.g., soil, plant residue that may carry regulated pests.
- 3 Treat (if appropriate), reship or destroy.
- 4 Reship or destroy and suspend pathway.
- 5 No action if pest not viable.