



Biosecurity Risk Management of Entry Pathways for Pasture Pests

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Ministry for Primary Industries
Pastoral House, 25 The Terrace
PO Box 2526, Wellington 6140
New Zealand

Tel: 64 4 894 0100
Fax: 64 4 894 0731

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Disclaimer

The contents of this report are accurate as at 1 June 2013. However, biosecurity risk management measures are regularly updated as risk managers respond to changes in risk and new information. Consequently, modifications made to MPI risk management measures after 1 June 2013 may have rendered some content in this report obsolete.

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Approved for general release



Christine Reed
Manager, Biosecurity Risk Analysis Group
Ministry for Primary Industries

Contributors to this report

The following people provided significant input into the development of this report:

1. Primary author/s

Sarah Clark	Senior Adviser Risk Analysis, Plant and Pathways Risk Assessment, Standards	Ministry for Primary Industries Wellington
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2. Secondary contributors

Kathryn Hurr	Senior Adviser Plant & Plant Products Import & Export Plants, Standards	Ministry for Primary Industries Wellington
--------------	--	---

Conrad Black	Senior Adviser Plant & Plant Products Import & Export Plants, Standards	Ministry for Primary Industries Wellington
--------------	--	---

Vivian Dalley	Senior Adviser Plant & Plant Products, Import & Export Plants, Standards	Ministry for Primary Industries Wellington
---------------	---	---

Gisele Irvine	Senior Adviser Fresh Produce, Import & Export Plants, Standards	Ministry for Primary Industries Wellington
---------------	---	---

Shane Olsen	Senior Adviser Plant & Plant Products, Import & Export Plants, Standards	Ministry for Primary Industries Wellington
-------------	---	---

Mike Tana	Senior Adviser Biosecurity & Environment, Standards	Ministry for Primary Industries Wellington
-----------	---	---

Dave Nendick	Senior Adviser Biosecurity & Environment, Standards	Ministry for Primary Industries Wellington
--------------	---	---

Jo-Anne Stokes	Senior Adviser Biosecurity & Environment, Standards	Ministry for Primary Industries Wellington
----------------	---	---

Victoria Allison	Senior Policy Analyst Border & Biosecurity Systems, Policy	Ministry for Primary Industries Wellington
Susie Pettigrew	Senior Policy Analyst Border & Biosecurity Systems, Policy	Ministry for Primary Industries Wellington
Lawrence Coyle	Principal Adviser Planning & Development, Operational Programmes, Verifications & Systems	Ministry for Primary Industries Wellington
Mark Bullians (Surveillance)	Manager Surveillance & Incursion Investigation Plants and Environment, Compliance and Response	Ministry for Primary Industries Wellington
3. Internal peer review		
Peter Thompson	Director Plants Food & Environment, Standards	Ministry for Primary Industries Wellington
Stephen Butcher	Manager Import & Export Plants, Plants Food & Environment, Standards	Ministry for Primary Industries Wellington
Paul Hallett	Manager Biosecurity & Environment, Plants Food & Environment, Standards	Ministry for Primary Industries Wellington

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Glossary

BORIC	MPIs Biosecurity Organisms Register for Imported Commodities
CCP	Critical control point
CTO	Chief Technical Officer
DAF	Direct application fertiliser
GIS	Grain import system
HACCP	Hazard Analysis and Critical Control Point
Hitchhiker pest	An organism that has an opportunistic association with a commodity or item, not a biological association; or is associated with previous cargo. [The IPPC term for hitchhiker pest is “contaminating pest”]
ICPM	Interim Commission on Phytosanitary Measures
IHS	Import health standard
IPPC	International Plant Protection Convention
IRM	Inorganic Risk Materials
ISO	International Organisation for Standardisation
ISPM	International Standards for Phytosanitary Measures
ISPM 15	International Standards for Phytosanitary Measures Publication No. 15 – Guidelines for Regulating Wood Packaging in International Trade
ISTA	International Seed Testing Association
MPI	Ministry for Primary Industries
Non-regulated pest	A pest for which actions would not be undertaken if they were intercepted/detected
NPPO	National Plant Protection Organisation
OAP	Official Assurance Programmes
Pathway	The method by which biosecurity risks arrive in New Zealand; MPI has broadly categorised the possible methods of arrival into five pathways: passengers, cargo, mail, craft, or via the environment.
Pathway segment	A segment, or subset, of one of the five main pathways. Note: it is common within MPI for the terms ‘pathway segment’ and ‘pathway’ to be used interchangeably.
PBI	Plant Biosecurity Index
PEQ	Post-entry quarantine
Quarantine pest	A pest of potential economic importance to the area endangered thereby and not yet present there, or present but not widely distributed and being officially controlled [FAO, 1990; revised FAO, 1995; IPPC 1997]
Regulated pest	A quarantine pest or a regulated non-quarantine pest [IPPC, 1997]
Regulated non-quarantine pest	A non-quarantine pest whose presence in plants for planting affects the intended use of those plants with an economically unacceptable impact and which is therefore regulated within the territory of the importing contracting party
RoW	Rest of World passport holders (not New Zealand or Australia passport holders) (in relation to passenger arrivals)
SCHS	Sea container hygiene system
SPS	Sanitary and phytosanitary
TF	Transitional facility
WTO	World Trade Organisation

1 Executive summary

The purpose of this report is to communicate to pastoral sector stakeholders how MPI manages the biosecurity risks associated with the many pathways on which pasture pests have the potential to enter New Zealand.

MPI interventions take place at three locations: pre-border, the border and post-border:

- The first set of MPI interventions involves managing as much of the biosecurity risk as possible off-shore. In other words, MPI employs interventions aimed at ensuring products are free of exotic pests and diseases before they leave the country of export. Important tools in keeping risks off-shore are Import Health Standards (IHS) – New Zealand operates a ‘positive list’ approach to imports, in which imports are not allowed unless an IHS is in place. IHSs specify the requirements that must be met by exporters and importers to keep their products free of biosecurity risks. IHSs are a major focus of this report.
- The second set of MPI interventions occurs at the New Zealand border. It is not possible to achieve zero biosecurity risk pre-border, so inevitably, exotic pests and diseases do turn up at our border. As such, MPI interventions at the New Zealand border involve utilising a number of tools to verify compliance, including risk profiling, historic compliance, documentation verification and inspection. In addition, in situations where there is no off-shore risk management available (e.g. for inorganic risk materials) there are measures specified in the import health standard that must be carried out on arrival in New Zealand. Risk goods that do not comply with an IHS are either reshipped, or destroyed, or treated before being allowed entry into New Zealand.
- The third set of MPI interventions occurs post-border. This involves targeted surveillance programmes and pathway surveillance programmes, which target high risk sites (e.g. airports) and high risk organisms (e.g. fruit fly). Preparedness plans are an important tool in post-border interventions. In the event of an incursion, response activities can involve interventions to eradicate or contain incursions, or manage the effects of established pests.

This report is primarily concerned with the pre-border and border interventions that MPI manages for the following goods:

- Imported plant material (including fresh produce, nursery stock, cut flowers, seed for sowing, grain for consumption and processed plant material);
- Imported inanimate objects and materials (including inorganic risk materials, vehicles and machinery, containers and bulk inorganic fertiliser);

2 Purpose of this report

The purpose of this report is to describe the current management of the biosecurity risks associated with pathways on which exotic pests of pasture species might enter New Zealand (as at 1 June 2013).

The targetted audiences for this report are the organisations that have represented the pastoral sector in the recent collaborative project looking at pasture pests; i.e:

- Beef+Lamb New Zealand
- Dairy New Zealand
- Deer Industry New Zealand
- Dairy Companies Association of NZ

However, this report may be of interest to other sector groups as well.

Scope and structure of the report

This report firstly describes the key elements of New Zealand's biosecurity system.

Secondly, it emphasises that import health standards are a vital tool in managing biosecurity risks on certain entry pathways; the report identifies the import health standards that manage risks on the pathways which pasture pests are potentially able to enter New Zealand on. [The potential entry pathways were identified in the "Pasture pests hazard identification" report, which was work co-funded by the Ministry for Primary Industries (MPI), Beef+Lamb and Dairy New Zealand]. The pathways include:

- Fresh Produce
- Nursery Stock
- Cut flowers/foilage
- Seeds for sowing
- Grain for consumption, feed or processing
- Inanimate pathways (Including processed plant products, such as stock feed, and growing media)
- Hitchhiker pathways
- Passengers

The report provides detailed descriptions of the relevant import health standards in Appendix A.

Thirdly, as post-border biosecurity activities are an important component of the New Zealand biosecurity system, and contribute to the management of biosecurity risks, the report includes a section about post-border surveillance.

3 Overview of management of biosecurity risks

The Ministry for Primary Industries is charged with leadership of the New Zealand biosecurity system. This encompasses protecting New Zealand's primary industries from biological pests and diseases, facilitating international trade, protecting the health of New Zealanders and ensuring the welfare of our environment, flora and fauna, marine life and Maori resources. However, the biosecurity system in New Zealand is made up of many groups and organisations working together. All participants (importers, industry organisations, regional councils, Crown Research Institutes and public etc) have a role in managing biosecurity risks across the system.

The biosecurity system is regulated through the Biosecurity Act 1993. International responsibilities and obligations for the effective management of biosecurity risks are provided by the Sanitary and Phytosanitary (SPS) Agreement (1994), and the relevant international standard setting bodies recognised under the SPS Agreement; namely the International Plant Protection Convention (IPPC), and the World Organisation for Animal Health (OIE). See below for more information about these organisations and agreements.

The following sections outline the scope of the biosecurity challenge that New Zealand faces and provide an overview of how MPI leads the management of the biosecurity system.

3.1 A brief note about international obligations

International Bodies

New Zealand is a member of various international bodies relevant to managing biosecurity risks and facilitating trade. Being a member of these bodies means that New Zealand agrees to implement the standards and procedures that the bodies develop. International bodies include:

- The World Trade Organisation (WTO), which provides rules for trade, including rules for developing requirements for managing pests and diseases while trading.
- The framework of the International Plant Protection Convention (IPPC), which covers international and regional organisations responsible for plant health.
- The World Organisation for Animal Health (OIE), which provides standards for animal health and zoonoses (diseases that can be transmitted from animals to humans).

International Agreements

The World Trade Organisation's SPS¹ Agreement sets in place the rules that protect each country's sovereign right to protect the health of its people, animals, and plants, while at the same time facilitating trade. New Zealand is strongly committed to following the rules of the SPS Agreement for managing risks to biosecurity and food safety when trading. The SPS Agreement is founded on three basic rights and obligations:

- National sovereignty – members have the right to protect health, provided any restrictions on trade are consistent with the SPS Agreement;
- Necessity – any restrictions on trade must be necessary, which means based on scientific principles and justified by science-based risk analysis; and
- Non discrimination – members must not use health-protection requirements to discriminate in an arbitrary way against imported goods in favour of domestically produced good, or between goods from different countries.

¹ SPS = Sanitary and Phytosanitary

3.2 What is a “pathway”?

The term ‘pathway’ is used frequently and variously in the biosecurity context. Within the border context, MPI considers a ‘pathway’ to be “any means that allows the entry or spread of a pest”². In layman’s terms, ‘pathway’ refers to the method by which biosecurity risks arrive in New Zealand; five pathways are identified: passengers, cargo, mail, craft, or via the environment.

There are a range of factors that make one pathway distinctly different from another pathway, and pathways often need to be defined in much more detail than the broad definition provided above. For undertaking risk profiling of incoming goods, MPI does this by segmenting pathways further by clumping together groups of risk-goods or risk-entities that have a common set of characteristics. For instance cargo pathways are segmented according to the commodity type. Examples of pathway segments relevant to pasture pest hazards include: used machinery, fertiliser, fresh produce, nursery stock, shipping containers.

For other functions undertaken within MPI, such as pest risk analyses, the pathways or pathway segments are defined in further detail according to factors including the following:

- the item or class of item (e.g. a fresh product, such as nectarines),
- the country of origin (e.g. the USA),
- the production system (e.g. how is a product grown, harvested, transported to a pack-house, washed, processed, packaged, stored?),
- the transit method (e.g. via sea or air, storage conditions such as temperature and humidity),
- handling, inspection, quarantine, clearance at the border
- movement of the product into and around New Zealand (e.g. to which parts of NZ?)
- how the product is used and disposed of in New Zealand (e.g. is most of it eaten? will it be exposed to the environment?)

3.3 The scope of the biosecurity challenge is considerable

New Zealand is an island country and as such, enjoys the benefits of effective, natural quarantine barriers. However, New Zealand is a trading country that imports a vast variety of goods, including a wide range of plants and plant products from all parts of the world. These imports represent import pathways, and each pathway poses a continual threat to New Zealand’s plant health status. Every year 29,000 aircraft, plus marine craft, travel to New Zealand from other countries to deliver the following:

- 90,000 used vehicles and machinery
- 17,000,000 tonnes of cargo
- 600,000 containers
- 4 million passengers
- 330,000 animals including horses, pets and fish (e.g. aquarium fish).³

MPI takes a targeted approach to managing the risks associated with craft, cargo, passengers and mail.

² As defined in the MAF Biosecurity New Zealand Border System’s Manual (2010).

³ This figure is heavily influenced by imported aquarium fish

It is not possible to achieve zero biosecurity risk because:

- Hitchhiker pests⁴ (not biologically associated with a commodity) can be difficult to predict;
- High volumes make it impossible to inspect every arriving consignment;
- Only a sub-set of large consignments is inspected; e.g. a large number of units in a boatload of bananas makes it impossible to inspect every unit;
- Detection tools cannot detect all risk;
- The environment (particularly via trade winds and tidal currents) can also act as a pathway for pest arrival;
- Smuggling of risk goods occasionally occurs.

Because it is impossible to prevent all risk arriving, MPI maintains domestic surveillance and response systems, that allow early detection of new pests, and support decision making about how those risks should be managed.

3.4 A high-level summary of MPI interventions

MPI interventions take place at Pre-border, Border and Post-Border locations:

MPI interventions occur at multiple points along a pathway; they are not limited to the border. Interventions take place offshore (pre-border), at the border and post-border.

The component of the biosecurity system that New Zealanders are most familiar with are the interventions that they see at the border when they enter New Zealand on the passenger pathway. i.e. the passenger declaration cards and luggage inspection at ports of entry to New Zealand. These interventions are important, but represent only a very small component of New Zealand's biosecurity system.

Some of the main interventions or tools used to mitigate biosecurity risks associated with a pathway are specified below:

Pre-border (offshore) interventions / tools

Wherever possible, a large proportion of the biosecurity risks associated with items entering New Zealand are mitigated offshore, before they arrive at the border. The tools used to manage biosecurity risks offshore include:

- International trade agreements
- Risk analysis, which forms the basis of an import health standard
- Import health standards (IHSs), which can also involve:
 - Certification of an exporting country's export certification systems (including audits)
 - Certification of an Official Assurance Programme (OAPs; agreements between MPI and the exporting country's National Plant Protection Organisation); e.g. can include area freedom surveillance.
 - Pre-export testing, treatments, inspections
 - MPI-approved off-shore systems (e.g. for sea containers and vehicles)

⁴ The IPPC term for a hitchhiker pest is "contaminating pest". IPPC define "contaminating pest" as a pest that is carried by a commodity and, in the case of plant and plant products, does not infest those plants or plant products. "Infestation (of a commodity)" is defined by IPPC as presence in a commodity of a living pest of the plant or plant product concern. Infestation includes infection.

Border interventions / tools

The tools used to manage risk at the border include:

- Risk profiling
- Clearance standards (for some pathways)
- Import health standards
- Target Evaluation⁵
- Border verification and inspections (mail, passengers, goods)
- Treatments, reshipment, destruction of risk goods⁶
- Transitional facilities and post entry quarantine (including approved operators and accredited persons)
- Diagnostic facilities
- Processing, testing, growing-season inspections
- Pathway risk analysis

Post-border interventions / tools

The tools used to manage risk post-border include

- Surveillance:
 - Active (e.g. for fruit fly)
 - Passive (0800 pest and disease hotline)
- Response plans and specific response capability
- Internal borders (Biosecurity Act amendments allow Regional Councils to enforce regional movement controls)
- Pathway management
- National pest management strategies

3.5 Import health standards

Import health standards (IHSs) are vital tools for managing biosecurity risks. Section 22 of the Biosecurity Act 1993 requires that all risk goods entering New Zealand be covered by an import health standard (IHS). New Zealand operates a ‘positive list’ approach to imports, in which imports are not allowed unless an IHS is in place. This is different to many of our trading partners who operate a negative list approach, that is, trade is allowed to occur unless it is prohibited because of an identified risk.

An IHS describes the conditions that must (if an import is to be made) be met in the country of origin and/or export, during transit, during importation and quarantine, and after biosecurity clearance. Conditions that pertain to protecting the health of plants are referred to as phytosanitary measures (IPPC 2012).

In keeping with the IPPC, phytosanitary measures are only required for regulated pests⁷. The strength of any phytosanitary measures will depend on the assessment of risk, with an

⁵ A step in the border processes of the cargo pathway; involves verifying that documents meet requirements of the import health standard; leads to a decision about the next step that a consignment is directed into: either redirection (for inspection, treatment, reshipment/destruction) or clearance/release.

⁶ **Risk Goods** means any organism, organic material, or other thing, or substance, that (by reason of its nature, origin, or other relevant factors) it is reasonable to suspect constitutes, harbours or contains an organism that may-

(a) cause unwanted harm to natural and physical resources or human health in New Zealand; or
(b) interfere with the diagnosis, management, or treatment, in New Zealand, of pests or unwanted organisms.

emphasis on the consequences of the pest establishing in New Zealand. The phytosanitary measures may involve bilateral quarantine arrangements such as an official assurance programme, additional declarations or (as a last resort) treatment on arrival.

Consequently, import health standards are put in place for the importation of plants (e.g. nursery stock), plant-products (e.g. fruit), or other plant material. There are also IHSs in place for inanimate commodities and conveyances such as scrap metal and sea containers; these are also based in IPPC principles.

As well as IHSs there are also standards for the arrival of craft (i.e. vessel), facilities (i.e. post entry quarantine facilities and transitional facilities), treatment systems and diagnostic services.

3.6 The focus of this report

The main focus of the remainder of this report is on summarising the key elements of the main IHSs and operational standards that manage risks on pathways identified in the “Pasture pests hazard identification” report.

There are thousands of pages of specifications and requirements within more than 300 MPI Standards (IHSs and operational standards over the animal, plant and inanimate pathways), which describe the rules for the importation and clearance of items into New Zealand.

The catalogue of import health standards is available at this website:

<http://www.biosecurity.govt.nz/ihsearch/0/>

All the facility standards (i.e. transitional, PEQ, containment), diagnostic, and treatment standards etc are at this website:

<http://www.biosecurity.govt.nz/regs/trans/stds>

In addition to the information about import standards that regulate entry pathways, there is also a chapter in this report about post-border surveillance. Surveillance is just one aspect of post-border management of biosecurity risk. Preparedness planning and response activity are other aspects of post-border management of biosecurity risk, but these aspects are not dealt with in this report.

⁷ A quarantine pest or a regulated non-quarantine pest.

4 Importation pathways involving plant material

Section 4 summarises how biosecurity risks are managed on the six Cargo pathway segments that involve importation of plant material. These are:

- fresh produce,
- nursery stock,
- cut flowers/foilage,
- seed-for-sowing,
- grain for consumption, feed or processing
- processed plant material, including growing media

In brief, the strategy for risk management on the plant-based pathway segments is to manage the biosecurity risks off-shore, as much as possible. Consequently, the focus at the border is on verification of compliance with import requirements contained in the IHSs. On arrival in New Zealand, goods are subjected to verification activities that include document examination and may include inspection⁸ for regulated pests, soil, extraneous plant material, and other contamination. The type of verification activity and how much resource is allocated is determined by requirements in the IHS. It is also influenced by risk-profiles which are used to target consignments based on multiple factors including the compliance history of the exporter and/or importer.

There are IHSs for each of the cargo pathway segments listed above, as well as operational standards for the import inspection systems (e.g. clearance of fresh produce, structure and management of post entry quarantine facilities, pre-shipment inspection, handling of refuse, and biosecurity clearance of air and sea containers).

Transitional facilities are an important link in the biosecurity system to contain uncleared goods and manage biosecurity risks. Each facility is approved by MPI for the type of goods (and associated pests) being imported. Each facility must have a MPI-approved operator trained to handle those goods from a biosecurity perspective. Those facilities handling sea containers also have trained MPI-accredited people to look for and notify MPI of biosecurity issues found.

The plant health status of exporting countries varies greatly. For this reason, IHSs are prepared in one of three ways according to circumstance;

- a) on a country:commodity basis, and may be implemented through specific arrangements or agreements with exporting countries (e.g. fresh produce), or
- b) on a commodity basis with a list of approved countries, or
- c) on a commodity basis for all countries, with a list of country exclusions

The biosecurity risks associated with the main plant-product pathways are managed according to the standards and guidance documents listed below. **Refer to the Appendix, specifically chapters 9.1 to 9.6, for detail about management of each of these plant-product pathways.**

⁸ Inspection: Official visual examination of plants, plant products or other regulated articles to determine if pests are present or to determine compliance with phytosanitary regulations.

Fresh Produce

- [Import Health Standard 152.02 “Importation and Clearance of Fresh Fruit and Vegetables into New Zealand”](#).
- Specific IHSs for particular product/country combinations (e.g. beans from Fiji).
- Generic standards apply (see the Generic Standards heading below for these)

Nursery Stock

- [Ministry for Primary Industries Standard 155.02.06 Importation of Nursery Stock](#).
- [Operational Standard PBC-NZ-TRA-POCON: Specification for the Registration of a Plant Quarantine or Containment Facility, and Operator](#)
- [Operational Standard PIT-OS-TRA-ACPOF: Accreditation of Offshore Plant Quarantine Facilities and Operators](#)
- [Diagnostic Standard 155.04.03: Specification for the Registration of a Plant Pest Diagnostic Laboratory, and Operator](#)
- Generic standards apply (see the Generic Standards heading below for these)

Cut flowers/foilage

- [Import Health Standard 155.02.04 “Import Health Standard for Cut Flowers and Foliage”](#);
- [Appendix 1: Specific Country/Commodity Requirements](#);
- [Operational Standard 152.09.05 “Clearance of fresh cut flowers and foliage”](#);
- A Species-specific Import Health Standard: [“Import Health Standard Cut Flowers and Branches of Cordyline and Dracaena species from All Countries”](#)
- Generic standards apply (see the Generic Standards heading below for these)

Seed for sowing

- [Ministry for Primary Industries Import Health Standard: 155.02.05 Importation of Seed for Sowing](#) ;
- [Operational Standard PBC-NZ-TRA-POCON: Specification for the Registration of a Plant Quarantine or Containment Facility, and Operator](#)
- [Diagnostic Standard 155.04.03: Specification for the Registration of a Plant Pest Diagnostic Laboratory, and Operator](#)
- Generic standards apply (see the Generic Standards heading below for these)

Grain for consumption, feed or processing

- [Import Health Standard BNZ.GCFP.PHR Importation of grains/seeds for consumption, feed or processing plant health requirements](#) ;
- [Operational Standard PIT-GFP-ISR Grain for processing import system requirements](#) [GIS systems].
- Generic standards apply (see the Generic Standards heading below for these)

Processed Plant Material, including growing media

- [Import Health Standard for Processed Animal Feeds of Plant Origin](#)
- [Import Health Standard BNZ-FERTGRO-IMPRT: Importation of Fertilisers and Growing Media of Plant Origin](#)
- [Import Health Standard for Coco Peat and Coir Fibre Products](#)
- [Import Health Standard for Soil, Rock, Gravel, Sand, Clay, Peat and Water from Any Country](#)
- Generic standards apply (see the Generic Standards heading below for these)

Generic Standards

- [Operational Standard BNZ-STD-TFGEN: General Transitional Facilities for Uncleared Goods](#)
- [Treatment Standard BNZ-STD-ABTRT: Approved Biosecurity Treatments](#)

NOTE: An air- or sea-port must be approved as a ‘place of first arrival’, in order to receive any imported goods [or passengers, or crew]. The standard (*Standard for Places of First Arrival*) lists the arrangements, facilities and systems to manage the type of biosecurity risk caused by trade. Approval is subject to the resource management processes and approval of various government departments (Customs, Transport, Police, Health etc). Compliance to the approval is assessed annually.

5 Importation pathways involving inanimate objects and materials

There are multiple inanimate cargo pathway segments including inorganic risk materials, new or used vehicles and machinery, building materials, fertiliser, shipping containers and cargo.

The biosecurity risks associated with inanimate objects and materials arise from hitchhiker pests. Hitchhiker pests are organisms that have an opportunistic association with a commodity or item; or are associated with previous cargo. These biosecurity risks do not have a biological association with the product (except for wood packaging, which is treated according to ISPM 15).

One of the main characteristics of these pathway segments is the volume of imports. As an example, more than 500,000 sea containers move across our borders each year. This means it is not realistic to inspect or interact with every consignment. Hence, greater stakeholder accountability is a key aspect of the risk management approach MPI employs.

Systems that manage the risk off-shore are encouraged, especially within the sea-container and vehicle pathways. Once these systems are approved and shown to manage the risk down to an acceptable level, the amount of verification (of compliance with the requirements in the standards) is reduced. The rate of verification fluctuates based on system performance.

As such, the type of verification activity and how much resource is allocated is determined in part by the requirements in the IHS, system approvals, and the profile for the consignment, such as compliance history of the exporter and/or importer.

The biosecurity risks associated with some of the main inanimate pathway segments (particularly commercial consignments) are managed according to the standards and guidance documents listed below.

NOTE: There are many additional standards on the [MPI website for Import Health Standards](#) that manage biosecurity risk associated with specific inanimate objects or materials.

Refer to the Appendix, specifically chapters 9.7 to 9.10, for detail about management of each of these inanimate pathways.

Inorganic Risk Materials

- [*Import Health Standard for Importation of Inorganic Risk Materials. Short Name: MAF-STD-IRM*](#)
- [*Standard for General Transitional Facilities for Uncleared Goods. Requirements for Facilities and Operators BNZ-STD-TFGEN*](#)

Vehicles & Machinery

- [*Import Health Standard for Vehicles, Machinery & Tyres. Short Name: Vehicle-all*](#)
- [*Import Health Standard for Vehicles, Machinery & Tyres Guidance Document*](#)

Containers (Sea containers and Air containers)

- [*Import Health Standard for Sea Containers. Short Name SEACO.*](#)
- [*Guidance Document in support of the Import Health Standard for Sea Containers*](#)

- [*Standard for General Transitional Facilities for Uncleared Goods. Requirements for Facilities and Operators BNZ-STD-TFGEN*](#)
- [*ImportHealth Standard 152.07.011, Air Containers from Any Country*](#)

Bulk Inorganic Fertiliser (loose in vessel holds)

- [*Import Health Standard for Bulk Inorganic Fertiliser \(including Guano Fertiliser\). Short Name: INORGFERT.ALL*](#)
- [*Guidance Document to the Import Health Standard for Bulk Inorganic Fertiliser including Guano Fertiliser*](#)

NOTE: An air- or sea-port must be approved as a ‘place of first arrival’, in order to receive any imported good [or passengers, or crew]. The standard (*Standard for Places of First Arrival*) lists the arrangements, facilities and systems to manage the type of biosecurity risk caused by trade. Approval is subject to the resource management processes and approval of various government departments (Customs, Transport, Police, Health etc). Compliance to the approval is assessed annually.

6 Passengers (via airports)

The biosecurity risks associated with passengers and their luggage is managed according to the:

- [Standard for Places of First Arrival](#)

The management of biosecurity risks associated with the passenger pathway primarily⁹ occurs at the border. The border interventions on the passenger pathway are designed to promote accurate declarations, and to detect and manage any undeclared risk.

Since October 2010, the air-passenger pathway has been processed in two segments: relatively low-risk New Zealand and Australian (NZ/AU) passport holders, and higher risk Rest of World (RoW) passport holders.

MPI performs two broad activities on the passenger pathway:

1. MPI manages declared risk goods in accordance with the relevant Import Health Standard (IHS);
2. MPI detects and then manages undeclared risk goods.

The range of interventions that are used to achieve these goals include:

- Communication to passengers about their requirements. Communications include public information messages that keep biosecurity awareness high, targeted messages to higher-risk New Zealanders, and in-flight messaging. These messages ensure that passengers understand their responsibilities, including the requirement to fill in a Passenger Arrival Card before arrival. After arrival, airport signage highlights both requirements, and the penalties for failure to comply.
- Use of tools at the border to detect risk goods. This includes applying risk profiles to identify high-risk travellers, screening of Passenger Arrival Cards by inspectors, screening of passengers and their baggage by detector dog teams, manual baggage inspection, and baggage x-ray.
- Use of penalties for non-compliance (minimum \$400 instant fine or prosecution).

In summary, the process for passenger clearance is as follows:

- Prior to arrival, alerts are placed on known offenders, or passengers who have infringed previously. Following immigration processing, these passengers are directed to the full-inspection area.
- Prior to arrival, all passengers are required to fill in a Passenger Arrivals Card, a legal form on which they must declare any biosecurity risk items.
- Upon arrival, all passengers pass through immigration and have their arrival cards marked with alert codes. Passengers then collect their luggage from the carousels.
- During the arrival process, passengers can dispose of risk goods in Amnesty Bins, and may be screened by detector dogs. They are exposed to messaging about requirements and penalties for failure to comply.

⁹ Some activity occurs prior to arrival. Refer to the 'process for passenger clearance' to see activities occurring prior to arrival.

- All passengers are assessed by a Quarantine Inspector, who considers the information on the customer declaration cards, together with any other risk indicators. Passengers will either:
 - be referred to full-inspection, x-ray, item inspection; or
 - if eligible, may be cleared to use direct exit¹⁰.
- Where items are inspected, the passenger has the item returned if it meets the requirements in the Import Health Standard. Alternatively, items are treated or destroyed. Items may also be held at the airport for the passenger to retrieve on their departure.
- To verify that passengers in the direct exit lane are compliant, a sub-set of passengers from direct exit are redirected to x-ray screening.
- All RoW¹¹ passport-holders should have their bags x-rayed.
- Detector dogs are used at Auckland, Christchurch, Wellington and sometimes Queenstown International Airports. The dogs target flights at carousels or operate after x-ray screening in direct exit.

NOTE: An air- or sea-port must be approved as a ‘place of first arrival’, in order to receive any imported good [or passengers, or crew]. The standard (*Standard for Places of First Arrival*) lists the arrangements, facilities and systems to manage the type of biosecurity risk caused by trade. Approval is subject to the resource management processes and approval of various government departments (Customs, Transport, Police, Health etc). Compliance to the approval is assessed annually.

¹⁰ Also referred to as ‘green lane’.

¹¹ Rest of World

7 Surveillance activities managed by MPI

MPI invests in and manages a biosecurity surveillance system to detect the pests and diseases that manage to get past pre-border and border interventions.

The surveillance activities involve both targeted and passive surveillance programmes.

7.1 Targeted/pathway Surveillance Programmes

Targeted surveillance programmes are designed to look for a specific organism (or sometimes a group of related organisms) in specified hosts or regions. Targeted surveillance can be designed as an ongoing programme (repeated surveys and monitoring over several years) or as a one-off survey.

Current targeted surveillance programmes to detect pests of plants are:

Fruit Fly Surveillance: This programme was started in the mid 1970s.

The absence of economically important fruit flies enables fresh produce to be exported without the need for fruit fly treatments, thus facilitating trade. It also enables crops susceptible to fruit fly to be grown here without the need to manage fly populations and the associated damage that they cause. As an illustration of how important this is, produce exports in 2010 earned \$2.23 billion, and more than 90 percent of fresh fruit and vegetable exports by value were of species that are considered hosts for fruit flies.

Pheromone-lure traps are placed in potential host trees and arranged in a grid pattern designed to cover urban areas identified as likely points of entry because of their proximity to international airports, seaports and transitional facilities. Sampling occurs from September to June annually. This programme deploys 7500 traps throughout the country.

Gypsy Moth Surveillance: This programme started in 1992.

Gypsy moth, *Lymantria dispar*, is a severe defoliator of trees and is described as both an economic and environmental high-impact pest. A major outbreak of gypsy moth in New Zealand could severely impact the horticulture, forest and tourism industries and might also affect the indigenous flora.

Pheromone-lure traps are placed in potential host trees and arranged in a grid pattern designed to cover those areas identified as likely points of entry for gypsy moth. Sampling occurs September to June each year. The programme uses more than 1500 traps across the country.

An environmental programme that might be relevant to pasture species is the:

National Invasive Ant Surveillance: This programme started in 2003. The programme detects newly established exotic ant species in New Zealand that can then be eradicated, and provides information on range extensions of species already known to be established. Exotic ants that are targeted include fire ants such as *Solenopsis invicta* which can impact social and economic activities at all levels. They can sting people and

may cause an allergic reaction, and outcompete and prey on invertebrates, reducing biomass, abundance, and diversity. *S. invicta* also causes economic losses by feeding on agricultural crops, damaging irrigation systems and disrupting harvesting operations. *S. invicta* can cause death of livestock such as calves, small pigs, and domestic animals. High-risk sites for ant entry are determined by pathway and site risk analyses are undertaken annually. High-risk sites include seaports, airports, devanning sites, sea container storage sites and other Transitional Facilities that receive international freight. Sites are then scheduled to be surveyed from mid-summer to early autumn each year. In 2011/2012 47,712 survey pottles were deployed.

Pathway surveillance programmes target high risk sites to look for pests, diseases and risk organisms. The site is visited at a specified frequency, and surveillance is conducted for any new pests, diseases or risk organisms present at that site.

High Risk Site Surveillance (focusing on pests of importance to forestry): This programme started in 2005.

The primary objective of the HRSS programme is to detect new plant pests that pose a biosecurity risk or may impact on trees and shrubs (e.g. plantation forests, native forests and urban trees). About 7000 transect inspections are carried out each year around sites regarded as high risk because of their proximity to international airports, commercial seaports, transitional facilities, first-night tourist campsites and areas with a wide range of plants and tree species. Woody vegetation along these transects is visually inspected for presence and signs of non-indigenous organisms and diseases. Samples of all suspect organisms or vegetation showing signs of disease that could be new are collected and sent to the laboratory for identification. All sites are sampled from September to May each year, as these are the times when new organisms are more likely to be growing and spreading. About 7000 transect inspections are carried out each year.

7.2 Passive Surveillance System

Passive surveillance relies on members of the public, industry groups, plant or animal health professionals and/or laboratories reporting suspected cases of plant or animal disease or the presence of a pest, at their discretion. This may also include surveillance that uses existing information sources or networks of individuals or organisations. It involves investigating notifications of suspected unwanted pests and diseases, and monitoring and analysing trends in information relating to pests and diseases. Everyone can do their part by being aware of potential threats and to enhance early detection. Refer to <http://www.biosecurity.govt.nz/biosec/what-can-i-do>.

Passive surveillance relevant to the pasture species and pests includes:

- Lists of notifiable pests, diseases and unwanted organisms
- The Pest and Diseases Hotline (0800 80 99 66)
- Incursion Investigators, who investigate reports to the Pest and Diseases Hotline
- Everyone in New Zealand being watchful.

8 Regulatory status of the pasture pests in BORIC

BORIC is MPIs “Biosecurity Organisms Register for Imported Commodities” – it records many of the organisms that may be associated with plants or plant products that are imported into New Zealand. BORIC is a tool used by exporting National Plant Protection Organisations (NPPOs) and MPI staff (including quarantine inspectors) to determine what action should be taken on a consignment if an organism is found during phytosanitary inspection. The quarantine status for each species in BORIC is indicated as either regulated or non-regulated.

- If the organism is non-regulated, no action is required by inspectors.
- If the organism is regulated, actions are specified in BORIC.
- If an organism is not listed in BORIC, then MPI risk managers must be contacted to find out what action should be taken. No biosecurity clearance is given until the regulatory status of the organism is determined and appropriate actions instructed.

BORIC is not a comprehensive list of organisms that may be associated with plant or plant products. Therefore, it is not surprising that an analysis of the 52 hazards identified in the report ‘Pasture pest hazard identification’, revealed that 14 of the organisms are not listed in BORIC. The other 38 hazards are listed in BORIC as regulated, and the actions required on interception are specified within the BORIC database.

MPI has standards and procedures to manage detections of organisms that are not listed in BORIC. If an unlisted organism is detected by an NPPO on fresh produce, cut flowers, nursery stock, seed for sowing, grain for consumption or processed plant material, the NPPO must contact MPI to establish the regulatory status of the pest. If the unlisted organism is detected at the MPI border on any consignment, the consignment is held in a transitional facility, whilst MPI risk managers are contacted and instructions for appropriate action are issued. What this means in practice is that if any organisms not listed in BORIC are intercepted, they will not be given biosecurity clearance until the regulatory status is determined by MPI, or the consignment treated to eliminate the organism in question.

Refer to the table below to see the regulatory status of the 52 hazards of pasture species.

BORIC is available at this link:

<http://www.maf.govt.nz/biosecurity-animal-welfare/pests-diseases/boric.aspx>

Hazard (pasture pest)	Regulatory status of pasture pest on BORIC
Ants	
<i>Solenopsis geminata</i>	Regulated; actions taken on interception
Beetles	
<i>Agriotes sputator</i>	<i>Agriotes</i> spp. not in NZ are regulated; actions taken on interception
<i>Gonioctena fornicata</i>	Not in BORIC
<i>Hypera brunneipennis</i>	Regulated; actions taken on interception
<i>Hypera postica</i>	Regulated; actions taken on interception
<i>Hypera zoilus</i>	Not in BORIC
<i>Limoniuss californicus</i>	Regulated; actions taken on interception
<i>Naupactus xanthographus</i>	Regulated; actions taken on interception

Hazard	Regulatory status of pasture pest on BORIC
<i>Oulema melanopus</i>	Regulated; actions taken on interception
<i>Sitona cylindricollis</i>	Not in BORIC
<i>Sitona hispidulus</i>	Regulated; actions taken on interception
<i>Sphenophorus venatus confluens</i>	Not in BORIC
Flies	
<i>Agromyza frontella</i>	Regulated; actions taken on interception
<i>Chromatomyia fuscata</i>	Not in BORIC
<i>Liriomyza sativae</i>	Regulated; actions taken on interception
<i>Liriomyza trifolii</i>	Regulated; actions taken on interception
<i>Napomyza cichorii</i>	Regulated; actions taken on interception
<i>Ophiomyia pinguis</i>	Not in BORIC
<i>Oscinella frit</i>	Regulated; actions taken on interception
<i>Tipula paludosa</i>	Regulated; actions taken on interception
Grasshoppers	
<i>Dichroplus elongatus</i>	Regulated; actions taken on interception
<i>Melanoplus bivittatus</i>	Not in BORIC
Moths	
<i>Agrotis segetum</i>	Regulated; actions taken on interception
<i>Autographa gamma</i>	Not in BORIC
<i>Chrysoteuchia culmella</i>	Not in BORIC
<i>Chrysoteuchia topiaria</i>	Not in BORIC
<i>Glyphipterix simplicella</i>	Regulated; actions taken on interception
<i>Helicoverpa punctigera</i>	Regulated; actions taken on interception
<i>Hydraecia micacea</i>	Regulated; actions taken on interception
<i>Papaipema nebris</i>	Regulated; actions taken on interception
Plant Bugs	
<i>Adelphocoris lineolatus</i>	Regulated; actions taken on interception
<i>Empoasca fabae</i>	Regulated; actions taken on interception
<i>Lygus lineolaris</i>	Regulated; actions taken on interception
<i>Piezodorus hybneri</i>	Regulated; actions taken on interception
<i>Sitobion avenae</i>	Regulated; actions taken on interception
Thrips	
<i>Thrips angusticeps</i>	Regulated; actions taken on interception
<i>Thrips flavus</i>	Regulated; actions taken on interception
Bacteria	
<i>Xanthomonas axonopodis</i> pv. <i>alfalfae</i>	Regulated; actions taken on interception
Fungi	
<i>Alternaria cichorii</i>	Not in BORIC

Hazard	Regulatory status of pasture pest on BORIC
<i>Didymella festucae</i>	Regulated; actions taken on interception
<i>Drechslera catenaria</i>	Regulated; actions taken on interception
<i>Epichloë typhina</i>	Regulated; actions taken on interception
<i>Erysiphe pisi</i> var. <i>psii</i>	This variant is not in BORIC. But the parent species, <i>E. pisi</i> , is non-regulated as it is known from New Zealand. Some action required for interceptions of <i>E. pisi</i> on Nursery Stock.
<i>Phymatotrichopsis omnivora</i>	Regulated; actions taken on interception
<i>Tilletia controversa</i>	Regulated; actions taken on interception
<i>Ustilago lolii</i>	Not in BORIC
Nematodes	
<i>Meloidogyne arenaria</i>	Not in BORIC
<i>Meloidogyne chitwoodi</i>	Regulated; actions taken on interception
<i>Meloidogyne graminicola</i>	Regulated; actions taken on interception
<i>Tylenchorhynchus acutus</i>	Regulated; actions taken on interception
<i>Tylenchorhynchus claytoni</i>	Regulated; actions taken on interception
Phytoplasma	
<i>Aster yellows phytoplasma</i> group	Regulated; actions taken on interception

9 Appendix A

The way in which key import health standards (relevant to pasture pests) manage biosecurity risks is summarised in these appendices. Each chapter of Appendix A is dedicated to one particular pathway segment, as follows:

Pathway segments involving plant materials

- 9.1 Fresh produce
- 9.2 Nursery stock
- 9.3 Cut flowers/foilage for decorative purposes
- 9.4 Seed for sowing
- 9.5 Grain/seed for consumption, feed or processing
- 9.6 Processed plant material, including growing media

Pathway segments involving inanimate objects and materials

- 9.7 Inorganic risk materials
- 9.8 Vehicles and machinery
- 9.9 Containers
- 9.10 Bulk inorganic fertiliser including guano fertiliser

Most of these appendix-chapters provide:

- a summary of how the import health standard manages risk
- details of the requirements in the import health standards.

The chapters which pertain to pathway segments involving fresh plant material, i.e. Chapters 9.1 to 9.5, also identify where special conditions, over and above the basic conditions listed in the import health standard, are required to provide appropriate level of protection against the biosecurity risk of a pasture pest.

9.1 Fresh Produce

The biosecurity risks associated with fresh fruit and vegetables being imported into New Zealand are managed according to the:

- [Import Health Standard 152.02 “Importation and Clearance of Fresh Fruit and Vegetables into New Zealand”](#).
- Specific IHSs for particular product/country combinations (e.g. beans from Fiji).
- Generic standards listed in Section 4 of this report.

In summary, there are basic (mandatory) conditions that all fresh produce must meet before it can enter New Zealand. These basic conditions are designed to manage the biosecurity risk of a large number of regulated pests to New Zealand. As a bare minimum, every single consignment of fresh produce must be accompanied by a phytosanitary certificate, which means they must have a phytosanitary inspection offshore.

For specific country:commodity fresh produce pathways, there are biosecurity risks that are unable to be managed by the basic conditions alone, and so additional requirements or measures are required.

A specific country:commodity combination import health standard will include the mandatory phytosanitary inspection plus any additional requirements. These additional requirements may include an end point treatment, such as hot water dipping or may be a combination of measures packaged as a systems approach¹². The risk-management measures specified in the import health standards predominantly take place pre-border (offshore).

9.1.1 Pathway management offshore and pre-export

1. All fresh fruit and vegetables are prohibited entry into New Zealand unless they are covered by a valid IHS.
2. Unless specified, a completed phytosanitary certificate issued by the exporting country’s National Plant Protection Organisation (NPPO) must accompany all consignments of fresh fruit/ vegetables exported to New Zealand.
3. Before a phytosanitary certificate is to be issued, the exporting country’s NPPO must be satisfied that the following general activities, for each consignment, have been undertaken.
 - inspected in accordance with appropriate official procedures and found to be free of any visually detectable regulated pests specified by MPI.AND either
 - been sourced from a pest-free area, as verified by an official detection survey, for those regulated organisms specified by MPI for which there is no practical means of inspection or testing.OR
 - undergone appropriate pest control activities that are effective for regulated pest specified by MPI.

¹² A ‘systems approach’ is the integration of different risk management measures, at least two of which act independently, and which cumulatively achieve the appropriate level of protection against regulated pests [ISPM 14:2002; revised ICPM, 2005]

- undergone an agreed treatment that is effective against regulated pests specified by MPI.

Pre-export phytosanitary lot inspection: MPI requires that the exporting country's NPPO sample and visually inspect the consignment according to official procedures for all the regulated pests specified by MPI and ensure that it conforms with New Zealand's current import requirements. A phytosanitary certificate should not be issued if live regulated pest(s) are detected, unless the consignment is treated in order to eliminate these.

If pests are found which are not listed in the specific country:commodity import health standard issued for that commodity, the NPPO must establish their regulatory status in New Zealand. This information is available in MPI's BORIC database, available on the MPI website¹³. If a pest is not listed in BORIC, the NPPO must contact MPI to establish the regulatory status of the pest.

9.1.2 Pathway management at the border

The clearance of fresh fruit and vegetables at the New Zealand border is to be carried out in accordance with:

- *Standard 152.01.01S - Requirements for Biosecurity Clearance of Goods Subject to an Import Health Standard*, and;
- *Standard BMG-STD-PESTI: Pest and Disease Identification for Interceptions at the Border*.

Commercial consignments have the following requirements:

Documents and certificates must be appropriate:

- All unaccompanied consignments of fresh fruit and vegetables must have a valid phytosanitary certificate with the necessary additional declarations (refer to Appendix 1 of IHS 152.02).
- Consignments accompanied by correct documentation will be sampled and inspected as specified in sections 4.4 and 4.5 of IHS 152.02.
- Consignments without certification, or accompanied by incorrect certification, will be held in a transitional facility until correct documentation is presented. If correct documentation is not presented within 48 hours a non-conformance report must be logged with MPI.

Fresh produce is transported to an inspection facility

- Fresh fruit and vegetables that are covered by correct documentation may be transhipped within New Zealand provided they are in pest proof containers and transported directly to an approved inspection facility for inspection and final clearance under the direction of a MPI inspector.

Fresh produce lots are sampled (for inspection)

- A sample shall be taken from each lot¹⁴. Samples may be taken from any part of the lot and shall include a selection of cartons/packages from different areas of the lot. To ensure a representative sample is selected for inspection, consideration should be given to selecting cartons from different grower lines, different pallets, different brands and different locations within the consignment.

¹³ BORIC is MPI's "Biosecurity Organisms Register for Imported Commodities", available at this link <http://www.biosecurity.govt.nz/pests-diseases/registers-lists/boric/>

¹⁴ Note: Exception of Green/French Beans from Australia, which are subject to a variable verification process.

- Where the produce within a lot or consignment has the same scientific name (e.g. *Brassica oleracea*), but the produce differs in physical characteristics (e.g. varietal differences such as brussel sprouts and broccoli), the composition of the sample selected for inspection shall include an equal proportion of each variety of produce.
- The importer may nominate the size of sample before the inspection is carried out. Once the sample size has been selected, the total sample shall be inspected (e.g. it is not permissible to stop at 600 units when a 950 sample was originally selected).

The fresh produce is inspected

- The samples of each lot are inspected according to an approved transitional facility (refer to *Standard BNZ-STD-TFGEN: General Transitional Facilities for Uncleared Goods*). Each individual unit within the sample shall be examined by an inspector, along with the package in which they were contained, for the presence of pests, seeds, signs or symptoms of disease, soil or any other non-conformity with this standard.
- Testing of the consignment for regulated pests which are not visually detectable, is not (generally) required for fresh fruit/vegetables.

Compliance of the phytosanitary certificate is checked for each importer

- Three tiers of compliance check will be used to validate phytosanitary certification details (e.g. number of packages, consignment composition) against the actual consignment. These are, for each importer:
 - (i) A compliance check on every consignment for ten consecutive consignments;
 - (ii) A random compliance check on one in ten consignments; and
 - (iii) A random compliance check on one in twenty consignments.
- Initially, one complete compliance check, selected randomly, per ten consignments shall be carried out to validate phytosanitary certification details (e.g. number of packages, consignment composition) against the actual consignment. Where significant compliance is demonstrated over time (ie. ten consecutive compliance checks validate conformance), the regime can be raised to one complete compliance check per twenty consignments.
- If a compliance check identifies a non-conformance (e.g. undeclared product), the level of compliance check will drop a tier. For example, if a one in twenty compliance check identifies a non-conformance, the level of compliance check for the offending pathway will reduce to the one in ten compliance check tier. Or, if a one in ten compliance check identifies a non-conformance, the next ten consignments from the offending pathway shall be fully reconciled.
- Where the composition of the consignment appears to include deliberately concealed product MPI (plantimports@mpi.govt.nz) should be notified immediately.

A biosecurity directive or clearance is given

- A written biosecurity directive shall specify any conditions applying to the consignment (treated, reshipped or destroyed).
- A written biosecurity clearance shall be issued by an inspector for each consignment/lot of imported fresh fruit and/or vegetables cleared for entry into New Zealand.

Private consignments (accompanied) have the following requirements:

- To be eligible for entry into New Zealand, all private (accompanied) consignments of fresh fruit/vegetables shall be accompanied by an original phytosanitary certificate issued in accordance with the specific country:commodity import requirements

detailed in Appendix 1 of the import health standard for importation and clearance of fresh fruit and vegetables into New Zealand.

The produce is inspected

- Each individual unit of product within the sample shall be examined by an inspector, along with the package in which they were contained, for the presence of pests, seeds, signs or symptoms of disease, soil and any other non-conformity with this standard.

Actions when fresh produce does not conform

Interceptions of organisms

- Suspected fruit flies

Fresh fruit/vegetables infested with live fruit flies shall be held in a secure area until treated (at the discretion of the CTO), reshipped or destroyed. Fresh fruit/vegetables infested with live fruit flies which are to be destroyed, shall be either destroyed by incineration within 1 day of interception or fumigated with methyl bromide at 144 g/m³ at 21°C for a minimum of two hours, then disposed of by deep burial with a minimum of 2 metres of fill covering the product.

- Other regulated pests

Lots infested with other live regulated pests and/or regulated weed seeds, at levels exceeding those stated in the sampling plan, shall be treated in accordance with *Standard MPI-STD-ABTRT: Approved Biosecurity Treatments for Risk Goods Directed for Treatment* to ensure the pests are effectively controlled prior to release. Alternatively, the consignment shall be reshipped or destroyed at the importers option and expense.

- Non-regulated organisms

Consignments infested with non-regulated non-quarantine organisms shall be released unconditionally.

- “Unlisted” organisms

Identified organisms not listed in BORIC¹⁵ shall be reported to an Adviser, Plant Imports, MPI (plantimports@mpi.govt.nz) for categorisation and/or advice on the fate of the consignment.

Interceptions of soil and foliage contamination

- Lots contaminated with soil in excess of 25 g per 600 units (or an equivalent proportion e.g. 50g per 1200 units) sampled shall be washed free of soil or reshipped or destroyed at the importer’s option and expense.
- Lots contaminated with foliage in excess of one leaf per 50 units shall be resorted, reshipped or destroyed at the importer’s option and expense.
- Resorting shall be carried out by the importer or their agent under supervision of an inspector. Resorted lines shall be re-sampled and re-inspected by an inspector to determine whether or not they comply with this standard.

Interceptions of weed seeds as contaminants on fresh produce

- Lots contaminated with regulated weed seeds at levels exceeding the acceptance level stated in the appropriate sampling plan shall be held. The inspector (or his/her supervisor or manager) shall contact an Adviser, Plant Imports, MPI (plantimports@mpi.govt.nz) and supply details of the non-conformance (including numbers of each weed seed intercepted in the sample).

¹⁵ BORIC – Biosecurity Organisms Register for Imported Commodities

- Contaminated lots shall be treated (e.g. resorted), reshipped or destroyed at the importer's option and expense. Resorting shall be carried out by the importer or their agent under supervision of an inspector. Resorted lines shall be re-sampled and re-inspected by an inspector to determine whether or not they comply with the weed seed acceptance level.
- Note: Treatments for regulated weed seeds on pineapples may include resorting, or elimination of contamination site (i.e. cutting/removal of pineapple crown).

Treatments for intercepted fresh produce

- Fresh fruit/vegetables that require treatment before biosecurity clearance can be given shall only be treated by a method which is proven to be effective against intercepted pests and is documented in a recognised publication. Treatments are to be in accordance with *Standard MPI-STD-ABTRT: Approved Biosecurity Treatments for Risk Goods Directed for Treatment*.
- Note: All treatments will be carried out at owners risk and expense.

9.1.3 List of countries with at least one kind of fresh produce that can be imported into New Zealand

Australia	Peru
Chile	Philippines
China (Peoples Republic of)	Samoa
Cook Islands	Singapore
Ecuador	Solomon Islands
Egypt	South Africa
Fiji	Spain
India	Taiwan
Italy	Thailand
Japan	Tokelau
Kiribati	Tonga
Korea	Tuvalu
Mexico	United States of America
Netherlands	Vanuatu
New Caledonia	Viet Nam
Niue	Zambia
Panama	Zimbabwe
Papua New Guinea	

9.1.4 Management of pasture pests on fresh produce

The conditions that apply to all fresh produce are referred to in this section as “Basic” conditions, for the sake of consistency with other chapters in this report. The Basic conditions are designed to manage the risk of most invertebrates. Consequently, for any of the pasture pests that might be associated with a fresh produce commodity, most of them are managed by the Basic conditions. Under the Basic conditions, all fresh produce must:

- be inspected pre-export;
- undergo appropriate additional treatment if regulated pests are detected during pre-export inspection;
- be issued with a phytosanitary certificate (which certifies that inspection and any necessary treatments have taken place);
- be inspected again in New Zealand at the border, in approved transitional facilities;
- undergo further risk management measures if regulated pests are detected during inspection at the New Zealand border.

On some ‘fresh produce:country’ pathway segments, there are one or two pasture pests (the flies *Liriomyza sativae* and/or *Liriomyza trifolii*) that require additional conditions over and above Basic conditions. Consequently, on certain fresh produce from certain countries, as detailed below, there are additional declarations required, such as pest-free areas, or pest control activities that are effective for managing the pests.

Pest Species	Additional Risk Management Conditions
<i>Liriomyza sativae</i>	<p><i>Capsicum frutescens</i> (chilli) from Cook Islands (See IHS, p84) Phytosanitary Certificate additional declarations required.</p> <p><i>Solanum melongena</i> (eggplant) from Cook Islands (See IHS, p91) Phytosanitary Certificate additional declarations required.</p> <p><i>Cucumis sativus</i> (cucumber) from Vanuatu (See IHS, p402) Phytosanitary Certificate additional declarations required.</p> <p><i>Cucurbita maxima</i> (squash) from Vanuatu (See IHS, p403) Phytosanitary Certificate additional declarations required.</p>
<i>Liriomyza trifolii</i>	<p><i>Phaseolus</i> spp. from South Africa (See IHS, p287) Phytosanitary Certificate additional declarations required.</p> <p><i>Capsicum frutescens</i> (chilli) from Tonga (See IHS, p315) Phytosanitary Certificate additional declarations required.</p> <p><i>Cucurbita maxima</i> (squash), <i>Cucurbita moschata</i> (butternut) from Tonga (See IHS, p323) Phytosanitary Certificate additional declarations required.</p> <p><i>Lycopersicon esculentum</i> (tomato) from Tonga (See IHS, p329) Phytosanitary Certificate additional declarations required.</p>

	<p><i>Persea americana</i> (avocado) from Tonga (See IHS, p336) Phytosanitary Certificate additional declarations required.</p> <p><i>Solanum melongena</i> (eggplant) from Tonga (See IHS, p341) Phytosanitary Certificate additional declarations required.</p> <p><i>Cucumis sativus</i> (cucumber) from Vanuatu (See IHS, p402) Phytosanitary Certificate additional declarations required.</p> <p><i>Cucurbita maxima</i> (squash) from Vanuatu (See IHS, p403) Phytosanitary Certificate additional declarations required.</p> <p><i>Phaseolus</i> spp. from Zimbabwe (IHS, p419) Phytosanitary Certificate additional declarations required.</p>
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9.2 Nursery Stock

The biosecurity risks associated with Nursery Stock into New Zealand are managed according to the:

- [Ministry for Primary Industries Standard 155.02.06: Importation of Nursery Stock](#). The standard was last updated on 16 August 2012.
- [Operational Standard PBC-NZ-TRA-POCON: Specification for the Registration of a Plant Quarantine or Containment Facility, and Operator](#)
- [Operational Standard PIT-OS-TRA-ACPOF: Accreditation of Offshore Plant Quarantine Facilities and Operators](#)
- [Diagnostic Standard 155.04.03: Specification for the Registration of a Plant Pest Diagnostic Laboratory, and Operator](#)
- [Treatment Standard MPI-STD-ABTRT: Approved Biosecurity Treatments](#)

In summary, there are Basic Conditions that all nursery stock must meet before nursery stock can enter New Zealand. These Basic Conditions are designed to mitigate the biosecurity risk of a large number of pest organisms. As a bare minimum, every single consignment of nursery stock must have a phytosanitary certificate, which means they must have a phytosanitary inspection offshore.

But for nursery stock of some plant species, there are biosecurity risks that are unable to be managed by the Basic Conditions alone, and so additional Special Conditions are required. The risk-management measures specified in both the Basic and Special Conditions include risk management steps that occur pre-border (offshore), at the border and in Post-entry Quarantine.

Which plant species are allowed to enter New Zealand as nursery stock?

The [Plants Biosecurity Index](#) (PBI) specifies which plant species are allowed to be imported into New Zealand as nursery stock. The information in the PBI is referred to as the ‘import specification’. The import specification in PBI for each species is used to direct the importer to the appropriate section of the IHS and the conditions that need to be met, i.e. the specification will be either “L2(Basic)”, or it will direct to a specific schedule of Special Conditions.

- For example, Chicory (*Cichorium intybus*) has a nursery stock import specification of “L2(Basic)”. This means that this species only needs to meet the Basic Conditions. ‘L2’ indicates the level of post-entry quarantine (PEQ) that the species must enter before biosecurity clearance.
- If an import specification directs to a schedule of Special Conditions, it means that species must meet the Basic Conditions, as well as the additional requirements of the Special Conditions.

There are approximately 11,000 species eligible for import under Basic Conditions, and approximately 2,000 species which must meet additional requirements under 132 schedules of Special Conditions.

If a species is not listed in the PBI, it means that conditions for import into New Zealand have not been developed, and therefore the species cannot be imported as either seed for sowing or nursery stock. There is additional guidance information for the import of nursery stock available on the website: <http://www.biosecurity.govt.nz/regs/imports/plants/nursery>

Which of the priority pasture species can be imported as nursery stock?

Of the priority pasture species, as defined in the report “Pasture pests hazard identification” and listed in Appendix B, only Chicory (*Cichorium intybus*) is eligible for import as nursery stock. As mentioned above, Chicory has a nursery stock import specification on the plant biosecurity index of “L2(Basic)”, which means it is eligible for import under the Basic Conditions as either whole plants or plants in tissue culture.

All the other priority pasture species have a nursery stock import specification on the PBI of “requires assessment” – this means they are not eligible for import as nursery stock.

The following sections summarise some of the key aspects of biosecurity risk management on the nursery stock entry pathway.

9.2.1 Basic Conditions of Entry

All nursery stock imported into New Zealand must comply with the Basic Conditions in section 2.2 of the import health standard. The Basic Conditions section is split into three parts to identify the mandatory requirements for each commodity type:

- 2.2.1 Whole plants (includes rooted cuttings), cuttings (dormant and non-dormant) and dormant bulbs (and tubers)
- 2.2.2 Plants in tissue culture (plants in-vitro)
- 2.2.3 Pollen

Plant species with a nursery stock import specification of ‘L2(Basic)’¹⁶ are referred to in this document as “L2(Basic) species”.

Import requirements for “L2(Basic) species” imported as whole plants, cuttings or dormant bulbs

- “L2(Basic) species” are eligible for import from any country and must comply with the requirements of section 2.2.1 of the import health standard when being imported as whole plants, cuttings, or dormant bulbs.
- A permit to import issued by MPI is required.
- The nursery stock must be clearly identified with the scientific name (genus and species). The scientific name may be given on the phytosanitary certificate, the invoice, or a written declaration by the importer or exporter.
- The nursery stock must be free from soil, pests, disease, extraneous plant material, and other contamination.
- A phytosanitary certificate issued by the exporting National Plant Protection Organisation is required, which verifies that the consignment complies with New Zealand’s import requirements and is free from visually detectable regulated pests. (The issuance of a phytosanitary certificate means that the consignment has been inspected offshore).
- Pesticide treatments are required as follows:
 - Whole plants (and rooted cuttings) must be either raised in soil-less growing media or the roots must be treated with fenamiphos.
 - Whole plants, cuttings and bulbs must be treated for insects and mites. The importer has the option to treat with methyl bromide or chemical treatments.

¹⁶ L2 denotes the level of post-entry quarantine required, i.e. post-entry quarantine level 2.

- Measures to manage the risk of fungi may be required, depending on the country of origin. These measures are required regardless of the species being imported:
 - For *Helicobasidium mompa* (Violet root rot), all whole plants, cuttings, and dormant bulbs from the specified countries (in Asia and the Middle East) must meet specified requirements, e.g. pest free declarations endorsed on the phytosanitary certificate, and treatments may be required in some cases.
 - For *Phymatotrichopsis omnivora* (Texas root rot)¹⁷, all whole plants (and ‘L2(Basic)’ dormant bulbs) from the specified countries (in Central America) must meet specific requirements, e.g. pest-free declarations endorsed on the phytosanitary certificate.
- Requirements for *Phytophthora ramorum* (Sudden oak death) are required for named host genera. This section allows importation of host species from only those countries recognised by MPI as being free from *P. ramorum*.
- Requirements for *Xylella fastidiosa* (Pierce’s disease) are required for named host species. This section allows importation of host species from only those countries recognised by MPI as being free from *X. fastidiosa*; or if the country is not free it can be from a pest-free place of production and must be tested while in post entry quarantine.
- All consignments are inspected on arrival to verify that the documentation is compliant and the nursery stock is free from visually detectable pests. Inspection requirements are specified in Section 2.1 of the import health standard.
- Nursery stock must be grown in a Level 2 post-entry quarantine (PEQ) facility for a minimum active growth period of three months, during which time the plants undergo regular inspections for visually detectable pests and disease by the operator of the PEQ facility and the MPI Inspector.
- If symptoms or signs of pests or disease are observed on arrival in New Zealand or while in post-entry quarantine, samples are collected and submitted for identification. Where regulated organisms are identified the importer is given a list of appropriate options for the management of regulated organisms, including treatments followed by an extended PEQ period and additional inspections (if appropriate), or reshipment or destruction of the consignment.

Import requirements for “L2(Basic) species” imported as tissue culture

- “L2(Basic) species” are eligible for import from any country and must comply with the requirements of section 2.2.2 of the import health standard when being imported as tissue culture.
- A permit to import is not required.
- The tissue cultures must be clearly identified with the scientific name (genus and species). The scientific name may be given on the phytosanitary certificate, the invoice, or a written declaration by the importer or exporter.
- The nursery stock must be free from soil, pests, disease, extraneous plant material, and other contamination.
- A phytosanitary certificate issued by the exporting National Plant Protection Organisation is required, which verifies that the consignment complies with New Zealand’s import requirements and is free from visually detectable pests.

¹⁷ Note that *Phymatotrichopsis omnivora* was identified in the Pasture Pests Hazard Identification as a hazard for New Zealand’s pasture species. Refer to the description about Special Conditions for more information about risk management of *P. omnivora* on nursery stock.

- All consignments are inspected on arrival to verify that the documentation is compliant and the tissue cultures are free from visually detectable pests. Inspection requirements are specified in Section 2.1 of the import health standard.
- If symptoms or signs of pests or disease are observed on arrival in New Zealand the importer has the option to reshipe or destroy the tissue cultures, or samples are collected and submitted for identification. Where regulated organisms are identified the importer is given a list of appropriate options for the management of regulated organisms, including treatments (if appropriate), reshipment or destruction of the consignment.
- A period in post-entry quarantine is not required, and the tissue cultures may be given biosecurity clearance on arrival in New Zealand if all requirements have been met.

Import requirements for “L2(Basic) species” imported as pollen

The importation of pollen can only occur when pollen is listed as an approved commodity type on a specific schedule for that species. As “L2(Basic) species” are not imported under a specific schedule, the importer would need to request the development of import requirements for pollen.

9.2.2 Special Conditions of Entry

The Basic Conditions of the import health standard always apply to all imported nursery stock - but in addition to the requirements of the Basic Conditions, the import health standard also includes additional requirements for some species in the Schedule of Special Entry Conditions, in Section 3. Section 3 of the import health standard details the additional specific measures which must be met for particular plant species.

Note that none of the priority pasture species (listed in Appendix B) need to meet a schedule of special entry conditions. [As mentioned previously, *Cichorium intybus* (chicory) is the only species that is eligible for import as nursery stock, and it enters under the Basic Conditions].

Species with a nursery stock import specification of “L1/L2/L3 see 155.02.06 under xxx” (where the xxx identifies the schedule which must be met) in the Plants Biosecurity Index (right column) must meet the specific requirements of the indicated specific schedule.

*For example, *Fragaria x ananassa* (strawberry) has a nursery stock import specification of ‘L2,L3 see 155.02.06 under *Fragaria*’, which means nursery stock of this species must meet the requirements of the Schedule of Special Conditions for *Fragaria* in addition to the Basic Conditions.*

The Schedule of Special Conditions is used to prescribe the following specific conditions for the species:

- Approved exporting countries, or approved exporters
- Quarantine pests
- Approved commodity types (e.g. only dormant cuttings or tissue cultures may be eligible for import)
- Pre-export requirements (e.g. treatments, inspections and testing requirements)
- Additional declarations to be endorsed on the phytosanitary certificate (e.g. pest free assurances)
- Requirements on arrival in New Zealand (e.g. mandatory treatments)
- Requirements in post-entry quarantine (including the level of quarantine facility, minimum quarantine period, inspection and testing requirements).

9.2.3 Management of pasture pests on nursery stock

The entry into New Zealand of ants, beetles, grasshoppers, moths, plant bugs, thrips, nematodes, and mites are managed under the Basic Conditions (refer to section 9.2.1 of this document) in the import health standard, for all commodity types of nursery stock. In accordance with the Basic Conditions, all whole plants and cuttings undergo mandatory insecticide and miticide treatments. These commodities are also inspected on arrival in New Zealand, and while in post-entry quarantine, to observe for visible signs of pest presence or symptoms. Tissue culture does not undergo these same mandatory treatments. But the nature of tissue culture means that they will be free from insects and mites when produced under aseptic conditions, and if insects and mites were present in the tissue culture, contamination would make them easily visible during inspection.

There are 132 Schedules of Special Conditions. Some of the pasture pests are specifically mentioned in one or more of the schedules of non-pasture species, most commonly by inclusion in a list of regulated pests. Most of these listings are simply an acknowledgement that there is a host association, and the risk they pose on nursery stock is managed by the measures required in the Basic Conditions of the import health standard.

There are a few pasture pests whose association with certain non-pasture host species requires the additional management provided by Special Conditions: they are the nematodes *Meloidogyne arenaria* and *M. chitwoodi*, the fungus *Phymatotrichopsis ammivora*, and Aster yellows phytoplasma. Further details about these Special Conditions are provided in the information below.

The table below identifies which pasture pests are listed as a regulated pest on non-pasture host species, and the measures that are required in the import health standard to manage their biosecurity risk:

Organism type	Pasture-pest hazard	Schedule name (non-pasture host species)	Approved nursery stock types	Biosecurity risk-management measure
Beetles	<i>Hypera brunneipennis</i>	<i>Fragaria</i>	Dormant cuttings and tissue culture	Mandatory insecticide treatments for cuttings. 100% of plants undergo growing-season inspections while in PEQ for actively growing plants (derived from cuttings and tissue cultures).
	<i>Naupactus xanthographus</i>	<i>Citrus</i> (including <i>Fortunella</i> and <i>Poncirus</i>), <i>Prunus</i> , and <i>Vitis</i>	Dormant cuttings and tissue culture	
	<i>Sitona hispidulus</i>	<i>Fragaria</i>	Dormant cuttings and tissue culture	
Moths	<i>Agrotis segetum</i>	<i>Fragaria</i>	Dormant cuttings and tissue culture	Mandatory insecticide treatments for cuttings. 100% of plants undergo growing-season inspections while in PEQ for actively growing plants (derived from cuttings and tissue cultures).
	<i>Helicoverpa punctigera</i>	<i>Citrus</i> (including <i>Fortunella</i> and <i>Poncirus</i>), <i>Fragaria</i> , and <i>Vitis</i>	Dormant cuttings and tissue culture	

	<i>Hydraecia micacea</i>	<i>Iris</i>	Whole plants, dormant bulbs, and tissue culture Note: normally only dormant bulbs are imported	Mandatory insecticide treatments for whole plants and dormant bulbs. Plants undergo growing-season inspections while in PEQ for actively growing plants (derived from whole plants and dormant bulbs – excluding bulbs produced under Dutch bulb propagation schemes).
	<i>Papaipema nebris</i>	<i>Rubus</i>	Dormant cuttings and tissue culture	Mandatory insecticide treatments for cuttings. 100% of plants undergo growing-season inspections while in PEQ for actively growing plants (derived from cuttings and tissue cultures).
Plant bugs	<i>Adelphocoris lineolatus</i>	<i>Actinidia</i>	Dormant cuttings and tissue culture	Mandatory insecticide treatments for cuttings. 100% of plants undergo growing-season inspections while in PEQ for actively growing plants (derived from cuttings and tissue cultures).
	<i>Empoasca fabae</i>	<i>Citrus</i> (including <i>Fortunella</i> and <i>Poncirus</i>), and <i>Fragaria</i>	Dormant cuttings and tissue culture	
	<i>Lygus lineolaris</i>	<i>Fragaria</i> , <i>Prunus</i> , and <i>Rubus</i>	Dormant cuttings and tissue culture	
Thrips	<i>Thrips angusticeps</i>	<i>Prunus</i>	Dormant cuttings and tissue culture	Mandatory insecticide treatments for cuttings. 100% of plants undergo growing-season inspections while in PEQ for actively growing plants (derived from cuttings and tissue cultures).
	<i>Thrips flavus</i>	<i>Citrus</i> (including <i>Fortunella</i> and <i>Poncirus</i>), <i>Prunus</i> , and <i>Rubus</i>	Dormant cuttings and tissue culture	
Nematodes	<i>Meloidogyne arenaria</i>	<i>Allium</i> and <i>Zantedeschia</i>	Dormant bulbs and tissue culture	“Pest free” additional declarations on the phytosanitary certificate or mandatory treatment for nematodes for dormant bulbs. 100% of plants undergo growing-season inspections while in PEQ for actively growing plants (derived from dormant bulbs).

		<i>Iris</i>	Whole plants, dormant bulbs, and tissue culture Note: normally only dormant bulbs are imported	Mandatory insecticide treatments for whole plants and dormant bulbs. 100% of plants undergo growing-season inspections while in PEQ for actively growing plants (derived from whole plants and dormant bulbs – excluding bulbs produced under Dutch bulb propagation schemes).
	<i>Meloidogyne chitwoodi</i>	<i>Allium</i>	Dormant bulbs and tissue culture	“Pest free” additional declarations on the phytosanitary certificate or mandatory treatment for nematodes for dormant bulbs. 100% of plants undergo growing-season inspections while in PEQ for actively growing plants (derived from dormant bulbs).
	<i>Tylenchorhynchus claytoni</i>	<i>Fragaria</i>	Dormant cuttings and tissue culture	Mandatory insecticide treatments for cuttings. 100% of plants undergo growing season inspections while in PEQ for actively growing plants (derived from cuttings and tissue cultures).

None of the bacteria identified as pasture pests in the hazard ID report are considered to be regulated pests on imported nursery stock, so they are not discussed here specifically.

Of the fungal species identified as pasture pests in the hazard ID report, *Phymatotrichopsis omnivora* is the only one recorded as regulated on nursery stock pathways. There are specific measures for *P. omnivora* in the Basic Conditions of the import health standard (section 2.2.1.9) for all whole plants (regardless of whether it is a known host species) which are sourced from Brazil, Mexico, the USA, or Venezuela. Under these Basic Conditions, whole plants originating from those countries must be sourced from a “Pest-free area” for *P. omnivora*, and this must be certified in the form of an additional declaration on the phytosanitary certificate. The nature of tissue cultures means that they will be free from fungi when produced under aseptic conditions, and so if fungi are present in a tissue culture, contamination would make it easily visible during inspection.

Also, within the Schedules of Special Conditions there are known hosts of *P. omnivora* which have specific measures, as discussed in the table below:

Hosts of <i>Phymatotrichopsis omnivora</i>	Approved commodity types	Biosecurity risk-management measure for <i>Phymatotrichopsis omnivora</i>
<i>Dahlia</i> , <i>Dioscorea</i> , <i>Liatris</i> , and <i>Ranunculus</i>	Whole plants, dormant bulbs, and tissue culture	Whole plants from the countries listed in section 2.2.1.9 must be sourced from a "Pest free area" Dormant bulbs from the USA (or other countries excluding Australia, South Africa and Europe) must be sourced from a "Pest free area", or if sourced from a "Pest free place of production", requires treatment for fungi (section 2.2.1.7) and a minimum active growth period of 3 months in Level 2 PEQ with growing season inspections.
<i>Helianthus</i> and <i>Paeonia</i> (herbaceous species)	Dormant tubers	Dormant tubers from all approved countries must be sourced from a "Pest free area", or if sourced from a "Pest free place of production" requires treatment for fungi (section 2.2.1.7). All dormant tubers under these schedules must undergo a minimum active growth period of 3 months in PEQ with growing season inspections.
<i>Prunus</i> and <i>Rubus</i>	Dormant cuttings and tissue culture	<i>P. omnivora</i> is less likely to be associated with these commodity types, and 100% of plants receive growing-season inspections while in PEQ for actively growing plants (derived from cuttings and tissue cultures).

Aster yellows phytoplasma ('*Candidatus Phytoplasma asteris*') is managed on a number of nursery stock hosts, including *Allium*, *Aster*, *Citrus* (including *Fortunella* and *Poncirus*), *Fragaria*, *Malus*, and *Rosa*. Management options for phytoplasmas include pest-free area assurances, inspections, and testing while in post entry quarantine.

9.3 Cut flowers/foilage for decorative purposes

The biosecurity risks associated with the importation of ‘cut flowers and foliage for decorative purposes’ into New Zealand are managed according to the:

- [Import Health Standard 155.02.04 “Import Health Standard for Cut Flowers and Foliage”](#), and [Appendix 1: Specific Country/Commodity Requirements](#);
- [Operational Standard 152.09.05 “Clearance of fresh cut flowers and foliage”](#),
- A species-specific IHS: [“Import Health Standard Cut Foliage and Branches of Cordyline and Dracaena species from All Countries”](#)
- Generic standards, as listed in section 4.

In summary, there are basic (mandatory) conditions that all fresh cut flowers and foliage for decorative purposes must meet before they can enter New Zealand. These basic conditions are designed to manage the biosecurity risk of a large number of regulated pests to New Zealand. As a bare minimum, every single consignment of fresh produce must be accompanied by a phytosanitary certificate, which means they must have a phytosanitary inspection offshore. They are also inspected at the New Zealand border.

For specific country:commodity fresh cut flowers and foliage pathway segments, there are biosecurity risks that are unable to be managed by phytosanitary inspection alone, and so additional requirements or measures are required, as well as the basic (mandatory) conditions. These additional requirements may include devitalisation, an end point treatment such as fumigation, or there may be a combination of measures packaged as a systems approach¹⁸. The risk-management measures specified in the import health standards predominantly take place pre-border (offshore).

The following sections summarise some of the key aspects of risk management on the cut flowers and foliage entry pathway.

9.3.1 Pathway management off-shore (pre-border)

Phytosanitary certification is a general requirement

All cut flowers and foliage are prohibited entry into New Zealand unless they are listed in [Appendix 1](#) of the IHS 155.02.04.

All consignments of fresh cut flowers/foilage must be accompanied by a phytosanitary certificate attesting that the consignment has been inspected and/or tested in accordance with appropriate official procedures and is considered to be free from regulated pests specified by MPI. The phytosanitary certificate must also attest that the consignment conforms with the current phytosanitary requirements of MPI.

The importation standard specifies the information required on the phytosanitary certificate and it falls under these categories:

- General
- Description of consignment (including place of origin, botanical name of plants)

¹⁸ A ‘systems approach’ is the integration of different risk management measures, at least two of which act independently, and which cumulatively achieve the appropriate level of protection against regulated pests [ISPM 14:2002; revised ICPM, 2005]

- Disinfestation and/or disinfection treatment (including treatment, chemical, duration and temperature, concentration)
- Additional information (including Additional Declarations – see Section 4.2 of this report for details about this).

There are general phytosanitary actions that must occur pre-export

Before an export phytosanitary certificate is to be issued, the exporting country's NPPO must be satisfied that the following activities, for each consignment, have been undertaken.

- Inspected and/or tested in accordance with appropriate official procedures and found to be free of any visually detectable regulated pests specified by MPI.

AND

- Been sourced from a pest free area, as verified by official detection survey, for those regulated pests specified by MPI for which there is no practical means of inspection or testing.

OR

Undergone an appropriate pest control for those regulated pests specified by MPI.

AND

For propagatable commodities:

Been rendered non-propagatable.

Additional Declarations are required

General Requirements: In addition to the general requirements of phytosanitary certification, the following additional declaration applies;

This is to certify that the cut flowers/foilage described herein have been inspected and/or tested according to appropriate official procedures and are considered to be free from the regulated pests specified by MPI and to conform with the current phytosanitary requirements of MPI, including those for regulated non-quarantine pests.

Specific Requirements: Where plant material is propagable (as shown in relevant country:commodity schedules in the IHS) the material must be subject to an appropriate devitalisation treatment rendering the material non-propagable. The following additional declaration to the phytosanitary certificate will apply:

The [commodity] has been subject to an approved devitalisation treatment rendering it non-propagatable.

Full details of the devitalisation treatment must be included in the “Disinfestation and/or Disinfection Treatment” area of the phytosanitary certificate. Details of the date, active ingredient, concentration, treatment duration and temperature must be recorded.

Where plant material has been produced and prepared for export in accordance with the Singapore Assurance Certification Scheme, the following additional declaration to the phytosanitary certificate will apply:

This consignment was produced and prepared for export in accordance with the Singapore Assurance Certification Scheme.

Consignments must be inspected pre-export

MPI requires that the exporting country's NPPO sample and inspect the consignment according to official procedures for all visually detectable regulated pests specified by MPI. Should regulated pests be detected, the consignment must be either rejected for export or undergo a treatment effective against the detected pest.

Consignments must be packaged and shipped according to transit requirements

All fresh cut flowers/foilage must be packed and shipped in a manner to prevent contamination by regulated pests. The package should not be opened in transit. However, where a consignment is either stored, split up or has its packaging changed while in another country (or countries) en route to New Zealand, a "Re-export Certificate" is required. Where a consignment is held under bond, as a result of the need to change conveyances, and it is kept in the original shipping container, a "Re-export Certificate" is not required.

9.3.2 Pathway management at the border

[MAF Biosecurity Authority \(Plants\) Standard 152.09.05 "Clearance of fresh cut flowers and foliage"](#) details the procedures undertaken by MPI at the New Zealand border, including sampling, inspection, testing for propagability, consignment reconciliation, and non-compliance contingencies.

Consignments are inspected on arrival in New Zealand

MPI will check the accompanying documentation on arrival to confirm that it reconciles with the actual consignment. MPI requires, with 95% confidence, that not more than 0.5% of the units in a consignment are infested with visually detectable regulated pests. To achieve this, MPI will sample and inspect 600 units with an acceptance level of zero infested units (or equivalent), from the (homogeneous) lot.

If contaminants or regulated pests¹⁹ are detected, certain actions are undertaken

Regulated pests: regulated pests are those pests for which actions would be undertaken if they were intercepted/detected. As well as quarantine pests²⁰, these include: pests that may pose a risk to human or animal health or to the environment; vectors of associated quarantine pests; and virulent strains (not present in New Zealand) of non-regulated pests and contaminants. If regulated pests are intercepted/detected on the commodity, or associated packaging, the following actions will be undertaken as appropriate: the importer will be given the option of treatment (where possible) of the consignment at the importer's risk and expense; resorting (specific conditions apply) of the consignment; reshipment of the consignment; destruction of the consignment; and in some cases depending on the regulated pest detected, suspension of the pathway.

Contaminants: Lots with more than 25 grams of soil per 600 unit sample shall be treated, reshipped or destroyed. Interception of extraneous plant material (e.g. leaves,

¹⁹ New Zealand MPI categorises pests associated with plants and plant products into regulated and non-regulated pests. Non-regulated pests are pests for which actions would not be undertaken if they were intercepted/detected. Measures to prevent the establishment of regulated pests in New Zealand are developed in accordance with the appropriate FAO ISPMs and other relevant international standards.

²⁰ Quarantine pest – a pest of potential economic importance to the area endangered thereby and not yet present there, or present but not widely distributed and being officially controlled (IPPC 1997: https://www.ippc.int/file_uploaded/publications/13742.New_Revised_Text_of_the_International_Plant_Protectio.pdf).

twigs) in the 600 unit sample will result in the lot being held until an assessment has been made in comparison with the risk of importing the part(s) of the plant species concerned.

9.3.3 Management of pasture pests on cut flowers or foliage

The conditions that apply to all cut flowers and foliage eligible for import under IHS 155.02.04 are referred to in this section as “Basic” conditions, for the sake of consistency with other chapters in this report. The Basic conditions are designed to manage the risk of most invertebrates potentially associated with the commodity, and may include conditions which are required to manage the risk of systemic pathogens associated with the commodities*.

Consequently, the biosecurity risk of any of the pasture pests that might potentially be associated with the cut flower or foliage commodities, is managed by the Basic conditions. Under the Basic conditions, all cut flowers/foliage must:

- be inspected by the NPPO of the exporting country
- *be devitalised – dependent on plant species
- be accompanied by a phytosanitary certificate
- be inspected again in New Zealand at the border, in approved transitional facilities;
- undergo further risk management measures if regulated pests are detected during inspection at the New Zealand border.

The additional requirements related to each country:commodity combination is specified in [Appendix 1](#) of the [Import Health Standard for Cut Flowers and Foliage](#), and in the [“Import Health Standard Cut Foliage and Branches of Cordyline and Dracaena species from All Countries”](#).

On the import pathway involving cut foliage and branches of *Cordyline* and *Dracaena* species for decorative purposes, special conditions over and above the Basic conditions are required to manage the risk of the regulated pest, *Liriomyza trifolii*. The special conditions for this pest include MPI-approved phytosanitary treatment options: pest-free area, pest-free place of production, fumigation (with methyl bromide), or heat treatment (hot-water immersion or heat vapour treatment). The contingency for interception is to reship or destroy, and trade will be suspended. Refer to [IHS for cut foliage and branches of Cordyline and Dracaena species from all countries](#) for full details.

9.4 Seed for Sowing

The biosecurity risks associated with the importation of seeds for sowing into New Zealand are managed according to the:

- [Ministry for Primary Industries Import Health Standard: 155.02.05 Importation of Seed for Sowing](#)
- [Operational Standard PBC-NZ-TRA-POCON: Specification for the Registration of a Plant Quarantine or Containment Facility, and Operator](#)
- [Diagnostic Standard 155.04.03: Specification for the Registration of a Plant Pest Diagnostic Laboratory, and Operator](#)
- [Treatment Standard BNZ-STD-ABTRT: Approved Biosecurity Treatments](#)

As occurs for the importation pathways of other plant material, the biosecurity risks associated with seeds for sowing are managed both offshore (pre-export) and at the border.

Plant species which are eligible for importation as seed under the *Standard 155.02.05: Importation of Seed for Sowing* are listed on the MPI [Plants Biosecurity Index](#) (PBI). The seed import specification (middle column of the PBI) states the appropriate section of Standard 155.02.05 to be met. Depending on the plant species, seeds are imported under either “Basic Conditions”, or under both “Basic” and “Special Conditions”. The Basic Conditions are designed to mitigate many of the biosecurity risks associated with contaminants, such as weed seeds and soil, and prevent the importation of prohibited seeds. Some plant species which have known quarantine pests that can be borne or transmitted by seeds (e.g. viruses, fungi, bacteria) pose biosecurity risks that are unable to be managed by the Basic Conditions alone, and so additional Special Conditions are required.

There are approximately 22,000 species eligible for import as seeds for sowing under Basic Conditions, and approximately 7,000 species eligible for import under 79 schedules of Special Conditions. If a species is not listed in the Plants Biosecurity Index, it means that conditions for import into New Zealand have not been developed, and therefore the species cannot be imported as either seed for sowing or nursery stock²¹.

There is additional guidance information for the import of seeds for sowing available on the website:

<http://www.biosecurity.govt.nz/regs/imports/plants/seeds>

²¹ It can also mean that the species is new to New Zealand, and hence an application to the Environmental Protection Authority for approval to import/release is required.

9.4.1 Importation of seeds of the priority pasture species

The following table specifies the category of Condition (Basic or Special) under which the seeds of the priority pasture species are imported into New Zealand.

Common Name of pasture plant	Scientific Name of pasture plant	Conditions of entry for seeds for sowing
White clover, red clover, subterranean clover	<i>Trifolium repens</i> , <i>T. pratense</i> , <i>T. subterraneum</i>	Basic Conditions
Lucerne	<i>Medicago sativa</i>	Special Conditions (under the <i>Medicago</i> schedule)
Perennial ryegrass, annual ryegrass	<i>Lolium perenne</i> , <i>L. multiflorum</i>	Special Conditions (under the <i>Agropyron</i> schedule)
Hybrid ryegrass	<i>Lolium x boucheanum</i>	Special Conditions (under the <i>Agropyron</i> schedule)
Cocksfoot	<i>Dactylis glomerata</i>	Special Conditions (under the <i>Agropyron</i> schedule)
Tall Fescue	<i>Festuca arundinacea</i>	Special Conditions (under the <i>Agropyron</i> schedule)
Browntop	<i>Agrostis capillaris</i>	Special Conditions (under the <i>Agrostis</i> schedule)
Chicory	<i>Cichorium intybus</i>	Basic Conditions
Plantain	<i>Plantago lanceolata</i>	Basic Conditions
Timothy	<i>Phleum pratense</i>	Special Conditions (under the <i>Agropyron</i> schedule)
Crested Dogstail	<i>Cynosurus cristatus</i>	Basic Conditions

9.4.2 General requirements (Basic Conditions)

The following summarises the general requirements for importation of seeds for sowing

General entry conditions apply:

- Only species listed in the [Plants Biosecurity Index](#) with a valid seed for sowing import specification can be imported. Where directed by the Plants Biosecurity Index, species must also meet the requirements outlined in the Schedule of Special Conditions (Part B of the [standard](#)).
- Each type of seed in a consignment must be clearly identified with its scientific name (genus and species).

- Seed for sowing may be imported from any country, unless otherwise specified in the Schedule of Special Conditions (Part B).
- A permit to import is not required, unless otherwise specified in the relevant Schedule of Special Conditions (Part B).
- Packaging associated with seed must be clean, free from soil and other contaminants.
- Any seed from fleshy fruits shall have all traces of flesh removed, except for *Orchidaceae* seed (which may be imported in dry/green pods) and any other seed specified in the relevant Schedule of Special Conditions (Part B).

Requirements of phytosanitary certification are specified in the IHS:

Seeds for sowing that enter New Zealand must be accompanied by a phytosanitary certificate, except for instances where the importer has chosen Option 2 below for seeds entering under 'Basic' conditions:

Option 1: Seed with a phytosanitary certificate

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

Option 2: Seed without a phytosanitary certificate

On arrival in New Zealand the consignment, or samples drawn in accordance with approved sampling rules, are to be inspected by an inspector at the importer's expense.

Some seeds enter New Zealand under Special conditions, and there are specific phytosanitary certification requirements for those seeds. They can be found in Part B of the seed for sowing standard.

Requirements for the Seed Analysis Certificate are specified in the IHS:

A Seed Analysis Certificate documents the status of the seed with respect to quarantine impurities. Along with other information, it certifies that none of the quarantine weed seeds listed in the [Schedule of Regulated \(Quarantine\) Weed Seeds](#) were present in the sample.

Importers can choose either to have the seed accompanied by a Seed Analysis Certificate, or not.

If importers choose not to provide the Seed Analysis Certificate, when the seeds arrive in New Zealand, samples of the seed will be inspected by MPI Inspectors; or where appropriate, samples will be sent to a MPI approved seed testing laboratory for analysis of weed seeds and other contaminants at the importer's expense.

Seeds are inspected on arrival in New Zealand

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

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

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

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

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

9.4.3 Special Conditions

The Basic Conditions of the import health standard always apply to all imported seed for sowing – but in addition to these, the import health standard also includes a Schedule of Special Conditions in Part B. Part B of the standard details the additional specific measures which must be met for particular plant species.

There are approximately 7,000 species for which special conditions apply for importation of seeds for sowing. Included in these species are eight of the 14 pasture species that were agreed as priority pasture species in the Pasture Pest Hazard Identification report (refer to Appendix B of this report for a list of the priority pasture species). The schedules of Special Conditions under which some of the priority pasture species must be imported are *Agropyron*, *Agrostis*, and *Medicago*, as follows:

Agropyron schedule applies to seeds of: *Lolium perenne*, *L. multiflorum*, *L. x boucheanum* (Perennial, Annual and Hybrid Ryegrass), *Dactylis glomerata* (Cocksfoot), *Festuca arundinacea* (Tall fescue), *Phleum pratense* (Timothy)

Agrostis schedule applies to seeds of: *Agrostis capillaris* (Browntop)

Medicago schedule applies to seeds of: *Medicago sativa* (Lucerne)

The Schedule of Special Conditions is used to prescribe the following specific conditions for the species:

- Approved exporting countries, or approved exporters
- Quarantine pests
- Pre-export requirements (e.g. treatments, inspections and testing requirements)
- Additional declarations to be endorsed on the phytosanitary certificate (e.g. pest free assurances)
- Requirements in post-entry quarantine (including the level of quarantine facility, minimum quarantine period, inspection and testing requirements). If post-entry

quarantine is required, the seeds are germinated and actively-growing plants are tested, treated or inspected for regulated pests at the importer’s expense.

9.4.4 Management of pasture pests on seeds for sowing

Most of the pasture pest hazards that have potential to be associated with the seed for sowing pathway are managed under Basic Conditions. However, there are three pasture pest hazards that are managed with additional Special Conditions, on particular schedules: *Xanthomonas axonopodis* pv. *alfalfae* (a bacterium); and *Tilletia controversa* & *Ustilago lolii* (both fungi). Details are as follows:

Pest Species	Additional Risk Management Conditions
<i>Xanthomonas axonopodis</i> pv. <i>alfalfae</i>	The biosecurity risk of <i>Xanthomonas axonopodis</i> pv. <i>alfalfae</i> on seeds entering New Zealand under the <i>Medicago</i> schedule is managed by both the Basic and Special Conditions (see p66 of the seed for sowing standard for details). Seeds imported under this schedule must be sourced from a “Pest free area” or “pest free place of production”, free from <i>Xanthomonas campestris</i> pv. <i>alfalfae</i> (synonym of <i>Xanthomonas axonopodis</i> pv. <i>alfalfae</i>).
<i>Tilletia controversa</i>	The biosecurity risk of <i>Tilletia controversa</i> on seeds entering New Zealand under the <i>Agropyron</i> , <i>Hordeum</i> and <i>Triticum</i> schedules is managed by both the Basic and Special Conditions. Seeds imported under the <i>Agropyron</i> schedule must be sourced from a “Pest free area” or “pest free place of production”, free from <i>Tilletia controversa</i> ; OR no spores of <i>T. controversa</i> were found in any officially drawn representative sample of 600 seeds; AND the seeds must be treated with fungicide. The <i>Hordeum</i> schedule (p49 of the seed standard), and the <i>Triticum</i> schedule (p98 of the seed standard) have similar requirements for the management of <i>T. controversa</i> .
<i>Ustilago lolii</i>	Seeds entering New Zealand under the <i>Agropyron</i> schedule undergo special fungicide treatments to manage <i>T. controversa</i> and other quarantine fungi, including Ustilaginales fungi. Ustilaginales fungi are specified as quarantine pests in the <i>Agropyron</i> schedule.

9.5 Grain/seed for consumption, feed or processing

The biosecurity risks associated with the importation into New Zealand of grains for consumption, feed or processing (hereby referred to simply as ‘grain’) are managed according to the:

- [Import Health Standard BNZ.GCFP.PHR Importation of grains/seeds for consumption, feed or processing plant health requirements](#) (updated on 23 June 2011), and;
- [Operational Standard PIT-GFP-ISR Grain for processing import system requirements](#) (updated on 24 November 2003). [GIS systems].

MPI requires that the *grain standard* (BNZ.GCFP.PHR) is used in conjunction with the complementary *operational standard*, (PIT-GFP-ISR, i.e. the import systems requirements), for the purpose of managing biosecurity risks associated with grain importation. Refer to Section 7.5 of this report for a summary of the *operational standard*.

In summary, the biosecurity risks associated with grain are managed both offshore (pre-export) and at the border. Depending on the plant species, grain is imported under either “Basic Conditions”, or under “Special Conditions”. In addition, some may be processed within the requirements of a Grain Import System (GIS), e.g. wheat. The Basic Conditions are designed to mitigate many of the biosecurity risks associated with contaminants, such as weed seeds, soil and live pests, as well as prevent the importation of prohibited grains or seeds. But for some species of grain/seed, there are known quarantine pests (e.g. viruses, fungi, bacteria) which pose biosecurity risks that are unable to be managed by the Basic Conditions alone. These additional biosecurity risks are mitigated if Grains go through the GIS system. For grains that do not go through the GIS system and where there is potential for diversion (e.g. grains are used for sowing, rather than the intended purpose - consumption, feed or processing; beans are an example) the biosecurity risks are managed by Special Conditions. The Special Conditions are in place to manage the biosecurity risks that are not mitigated by Basic Conditions and/or by processing.

9.5.1 The Grain Standard - General information

There are 25 grains requiring Special Conditions of entry and these are specified in Section 3 of the Import Health Standard for grain. The schedules of Special Conditions for these Grains/seeds describe the additional biosecurity risk-management measures.

Where a schedule is not listed for a species, so long as the grain/seed species is listed on the [Plants Biosecurity Index](#) as able to enter under ‘Basic’ seed-for-sowing requirements, the grain/seed may be imported for “consumption, feed or processing purposes” without an accompanying phytosanitary certificate being required. However, these ‘basic’ seed consignments must be positively identified to species level and all consignments are subject to inspection for contamination with regulated seeds or pests.

If a grain/seed type is not listed in the Plants Biosecurity Index, it means that conditions for import into New Zealand have not been developed and hence the seed is not permitted entry.

The importation of any grains or seeds not covered in this import health standard will not be permitted until MPI has completed a risk assessment and developed appropriate phytosanitary conditions for entry.

Grain/seed analysis is required either pre-border or at the border

Grain or seed consignments that are not accompanied by seed sampling certificates and seed analysis certificates must be sampled and analysed for regulated contaminants on arrival in New Zealand. Consignments that require analysis must be held on board the vessel or in a transitional facility until analysis results have been obtained by MPI.

An inspector may conduct the sampling for analysis and sampling according to International Seed Testing Association (ISTA) guidelines. If MPI cannot provide this resource, sampling may be carried out by a subcontracted (third party) ISTA trained sampler. Such sampling must be conducted under the supervision of MPI at the importer's expense.

Samples must be sent by the MPI inspector to an ISTA accredited seed analysis laboratory that has been approved to MPI *Standard for General Transitional Facilities for Uncleared Goods (BNZ-STD-TFGEN)*.

Samples must be accompanied by the following information:

- (a) the permit number of the consignment;
- (b) the name and address of the importer;
- (c) the name and voyage number of the vessel carrying the grain, port(s) of discharge and estimated date of arrival in New Zealand;
- (d) the sampling certificate;
- (e) the weight of each consignment in the shipment and the number of containers if appropriate.

Weed seeds are prohibited

A list of weed species for which the seeds are prohibited, is provided on page 13 & 14 of the [grain standard](#).

There are rules for the importation of specific (viable) birdfeed grains and seeds

Refer to the [grain standard](#) for details.

9.5.2 The Grain Standard - Import specification and entry conditions

Documentation and certification is required

The phytosanitary and documentation requirements are listed in the import schedules in this standard. Note: A sack certificate is required for grain consignments imported in bags or sacks to specify cleanliness.

Consignments are inspected

On arrival, all consignments of grains/seeds for consumption, feed or processing are inspected for regulated pests and contaminants other than regulated seeds.

A 5kg sample will be drawn from the consignment. If the total consignment is 5kg or less, then the whole consignment must be inspected. If the consignment is larger than 5kg, then a 5kg sample must be randomly drawn from representative numbers of bags/containers or representatively from bulk consignments:

- pest contamination shall not exceed the Maximum Pest Limit (MPL) of 0.9 pests per kg;
- to achieve 95% confidence that the MPL will not be exceeded, no live regulated pests are permitted in an officially drawn sample of 5kg (i.e. acceptance no = 0).

Inspections of regularly imported commercial consignments with a good history of compliance (e.g. on a commodity or importer/supplier basis) may have the inspection frequency reduced at the discretion of MPI.

Contaminated consignments shall be treated, re-shipped or destroyed

Consignments that are contaminated with soil (other than traces) shall be treated, re-shipped or destroyed. The detection of other extraneous organic material (other than pieces of leaf or stalk normally associated with grains or seeds), where it cannot be readily removed, may result in treatment, re-shipment or destruction of the consignment.

NPPOs must establish the regulatory status of “unlisted” visually detectable pests prior to export. If visually detectable pests are found which are not listed in the import health standard, the certifying NPPO must establish their regulatory status prior to issuing the certificate. This information is available in MPI’s Biosecurity Organisms Register for Imported Commodities (BORIC) register <http://www.maf.govt.nz/biosecurity/pests-diseases/registers-lists/boric/>.

There is a tolerance level for contaminant grains/seeds

For any consignments that are heat treated or are directed for processing at a MPI-approved transitional facility, all contaminant grains/seeds should be stated on a Seed Analysis Certificate where provided. No further action is to be taken on these contaminant grains/seeds as treatment or processing in MPI-approved transitional facilities will make these seeds nonviable.

For any consignments requiring biosecurity clearance on arrival (i.e. Option 2 of various schedules in the IHS which are not being imported into a Grain Import System), there is a tolerance level for contaminant grains/seeds of up to 0.1% in weight. The species and quantity of contaminant seeds should be prescribed on a Seed Analysis Certificate, or be determined by any sample and inspection made on arrival by a MPI inspector.

For consignments requiring biosecurity clearance, no contaminant seeds are permitted for those species listed in the Schedule of Regulated Weed Seeds (Section 1.5.2 of the [grain standard](#)), or those species listed as ‘Entry Prohibited’ or not listed in MPI’s [Plants Biosecurity Index](#).

Where consignments have levels of seed contamination above the allowable tolerance level (or where the contaminant seeds are prohibited or regulated weed seeds), MPI will give the importer the option to remove all contaminant seeds, require treatment (to render the seeds non-viable), re-shipment or destruction, or another equivalent action as approved by MPI.

Equivalent measure for risk-mitigation will be considered for non-compliant consignments

It is expected that the product will meet the conditions of this import health standard in every respect. If the products do not comply with the requirements, an application for equivalence must be submitted to MPI for consideration.

Different rules apply for grains/seeds imported as Trade Samples

Refer to the [grain standard](#) for details. The sample is to be given a 100% inspection for regulated pests, regulated weed seeds and other contaminants by a MPI inspector.

9.5.3 The Grain Standard - Special Conditions

Special conditions exist for genera or species with Import Health Standard Schedules. The 25 Import Health Standard Schedules for permitted types of grains/seeds are listed as below. Only one of the priority pasture species, *Medicago sativa* (Lucerne), is subject to special conditions.

Avena spp. (Oat)
Cannabis sativa (low THC hemp variety)
Carthamus tinctorius (Safflower)
Cicer arietinum (Chickpeas)
Glycine max (Soybean)
Gossypium spp. (Cotton)
Guizotia abyssinica (Niger)
Helianthus spp. (Sunflower)
Hordeum spp. (Barley)
Lens culinaris (Lentil)
Lupinus spp. (Lupin)
***Medicago* spp. (Alfalfa/Lucerne)**
Panicum spp. (Millet)
Papaver somniferum (Poppy)
Phalaris canariensis (Canary Grass)
Phaseolus spp. (Green/Other Bean Seeds)
Pisum spp. (Pea)
Secale cereale (Rye/Ryecorn)
Setaria italica (Foxtail/Italian Millet)
Sorghum bicolor (Sorghum)
Triticosecale (Triticale)
Triticum spp. (Wheat)
Vicia spp. (Broad/Faba Bean)
Vigna spp. (Adzuki/Mung Bean/Cowpea)
Zea mays (Maize/Popcorn/Sweetcorn)

Note: Viable grains of *Avena* spp. (Oat), *Hordeum* spp. (Barley), *Secale* (Rye/Ryecorn), *Sorghum* (Sorghum), *Triticosecale* (Triticale), *Triticum* spp. (Wheat) and *Zea mays* (Maize/Popcorn/Sweetcorn Grains) may only enter New Zealand for processing at MPI-approved transitional facilities (TFs) by organisations operating MPI-approved grain importation systems (GISs).

The Schedules of Special Conditions are used to prescribe the following types of specific conditions for the species:

- Approved exporting countries, or approved exporters
- Quarantine pests
- Pre-export requirements (e.g. treatments, inspections and testing requirements)
- Additional declarations to be endorsed on the phytosanitary certificate (e.g. pest free assurances)
- Requirements in post-entry quarantine (including the level of quarantine facility, minimum quarantine period, inspection and testing requirements). If post-entry quarantine is required, the seeds are germinated and actively-growing plants are tested, treated or inspected for regulated pests at the importer's expense.

The schedules specify options for risk-mitigation, which are different for non-viable and viable grains

The schedules generally specify several options for risk-mitigation by which the consignments can meet the import requirements, according to whether the grains are non-viable, viable, or according to other characteristics.

For example:

Options for non-viable grains might include

e.g. heat treatment, including phytosanitary certification & additional declarations that heat treatment has occurred. OR

e.g. irradiation, including phytosanitary certification & additional declarations that irradiation has occurred.

Note: A 1 in 10 audit for seed viability will be conducted. The consignment is not to be held during the audit process. If the audit demonstrates that viability is present when the phytosanitary certificate indicates otherwise all following consignments must be held and undergo viability tests until 5 consecutive conforming consignments are achieved. Audits for seed viability will not be required for consignments that are accompanied by a seed analysis certificate issued by an ISTA or AOSA accredited laboratory that specifies that the seeds have been analysed and are not viable.

Options for viable grains might include:

e.g. grains may only enter New Zealand for processing at MPI approved transitional facilities (ATFs) by organisations operating MPI-approved grain importation systems (GISs). The following documents and conditions apply:-

Import Permit

Phytosanitary Certificate, AND

e.g. phytosanitary requirements:

inspection;

certification, (such as “sourced from a pest free area, free from [organism name]”);

additional declaration requirements; AND

e.g. Additional certification such as importer must provide copies of import permit at least 5 days before arrival of a consignment.

e.g. Post-entry transport, storage and processing restrictions.

Refer to the grain standard for full details of all schedules.

*There is a schedule for the importation of *Medicago* spp. (Alfalfa/Lucerne Seeds)*

Refer to pages 79 to 84 of the [grain standard](#) for full details of the schedule for *Medicago* spp.. The schedule includes specific requirements for the risk-mitigation of *Xanthomonas axonopodis* pv. *alfalfae* (synonym is *Xanthomonas campestris* pv. *alfalfae*), which was a hazard identified in the pasture pest hazard identification report. Viable seeds of *Medicago* spp. must be sourced from an area where this bacteria is known not to occur, or from a crop that has been inspected during growing season and no bacteria was detected.

9.5.4 Management of pasture pests on grain/seed for consumption, feed or processing

For any of the pasture pests that might be associated with grain, most of them are managed by the Basic conditions. However, there are two pasture pest hazards (*Xanthomonas axonopodis* pv. *alfalfae* (a bacterium), and *Tilletia controversa* that require additional conditions over and above Basic conditions, on particular schedules. Details are as follows:

Pest Species	Additional Risk Management Conditions
<i>Xanthomonas axonopodis</i> pv. <i>alfalfae</i>	Specified as a regulated pest in the <i>Medicago</i> spp. (Alfalfa/Lucerne) schedule (p79-84 of the grain standard for details). Seeds imported under this schedule must be sourced from an area where <i>Xanthomonas campestris</i> pv. <i>alfalfae</i> (synonym of <i>Xanthomonas axonopodis</i> pv. <i>alfalfae</i>) is known not to occur, or from a crop that was inspected and found free of <i>Xanthomonas campestris</i> pv. <i>alfalfae</i> .
<i>Tilletia controversa</i>	There are special conditions for managing this organism in the schedule of <i>Secale cereale</i> (Rye/Ryecorn Grains) (p124-129 of the grain standard). Grain must be sourced from a pest free area or pest-free place of production, free of <i>Tilletia controversa</i> .

Refer to Section 3 of the [Import Health Standard BNZ.GCFP.PHR Importation of grains/seeds for consumption, feed or processing plant health requirements](#) for the full details of the special conditions.

9.5.5 The Operational Standard - Grain Import System requirements: General Information

This section summarises the [MAF Biosecurity Authority \(Plants\) Operational Standard PIT-GFP-ISR Grain for processing import system requirements](#). The standard outlines the requirements for the implementation of grain import systems (GIS).

The GIS system applies to viable cereal grains: barley, rye, oats, wheat, maize (corn). Grains that are processed through a GIS system must be processed to destruction or treated. As a result of this processing or treatment, any associated weed seeds and other pests are also rendered non-viable. The purpose of a GIS is to manage the biosecurity risks associated with the purposeful or accidental diversion of grain from the intended end use of consumption. e.g. a grain spill; or unconsumed grain remaining in the environment after it has been dispensed as animal feed. .

The standard provides guidelines to importers on how to produce a GIS for their own organisation and ensure that grain imported for processing meets MPI's biosecurity requirements. MPI requires that the *grain standard* is used in conjunction with this complementary *operational standard*.

9.5.6 The Operational Standard – GIS approval and audit processes

GIS's must be approved

There are two options for approval:

Option 1. The importer operates a MPI-approved GIS. MPI-approved inspectors, or authorised persons will periodically check it for compliance with the standard.

Option 2. The importer uses the services of MPI-approved inspectors and/or authorised persons to ensure compliance with this standard during the entire importation process.

Option 2 cannot be used by an organisation on a continual basis.

Approval of GIS's

An application and full details of the GIS for evaluation must be forwarded to a MPI Quarantine Service co-ordinator at least two months prior to the proposed starting date of service or operations. The documented GIS is then evaluated against the operational standard via a “desktop audit”. Any non-compliance is addressed immediately.

If satisfied, the MPI Quarantine Service co-ordinator will recommend the GIS for approval to the MPI Chief Technical Officer (CTO). The CTO will formally offer approval by sending a signed letter of approval to the organisations representative. Retention of approval depends on the GIS successfully meeting the requirements of the annual systems audit and twice yearly surveillance audits.

Note: During the period of time that it takes to approve a GIS (i.e. while the successful desktop and initial systems audits are being completed), MPI approved inspectors and/or authorised persons may be used to ensure compliance to biosecurity requirements (Refer to the Operational Standard, Section 2 - Approval Options, Option 2).

GIS's are Audited

One system audit must be undertaken in the first year of operation. This must be conducted after 6 months of operation of the GIS, as there will be insufficient records

available to conduct systems before this time. After the initial systems audit, a systems audit will be required on an annual basis.

In addition to the system audit (as above), surveillance audits must be conducted separately on a biannual basis.

GIS's can be suspended

The approval may be suspended immediately by the CTO, in full or part, for a specified period (and may lead to termination - refer to Section 3.3), if:

- (a) a surveillance or systems audit identifies a critical non-compliance of such a nature that is a significant risk or potential risk to the biosecurity of New Zealand.
- (b) agreed corrective actions for critical or major non compliances are not implemented;
- (c) inspection or audit identifies falsification of certificates/records or any other fraudulent activities
- (d) the organisation's representative formally requests it.

A GIS can be suspended after recommendation by a MPI Quarantine Service inspector or authorised person. This may occur on discovery of a non-compliance that presents a significant biosecurity risk to warrant immediate cessation of grain import activities.

Refer to Section 3.6 of the [operational standard](#) for classifications of non-compliance (critical, major or minor).

Suspensions can be lifted

Suspension will be lifted once the Chief Technical Officer is satisfied that the GIS is compliant with MPI requirements.

Refer to Section 3.7 of the [operational standard](#) for information about corrective actions.

GIS's can be terminated

Reasons for termination of a GIS are:

- (a) requested by the organisation's representative.
- (b) the organisation's representative fails to meet requirements of system and/or surveillance audits
- (c) there is more than one critical non-compliance in a single audit, or there are more than two critical non compliances in any 12 month period. Under these circumstances an application to re-apply for approval will not be accepted within 6 months of the termination.
- (d) the Chief Technical Officer receives a recommended for termination from the MPI Quarantine Service inspector or authorised person.

GIS's can be modified

The Chief Technical Officer can initiate modifications, or the organisation's representative may initiate modifications. The organisation's representative must inform the MPI Quarantine Service inspector or authorised person of any intended modifications to their approved GIS. Intended changes are evaluated to determine whether they may increase biosecurity risk. Refer to the [operational standard](#) for full details of the rules.

9.5.7 The Operational Standard – GIS Requirements

The organisation's representative must provide documentation of their GIS which demonstrates that the requirements specified in this standard can be met and that the following components are in place:

An overview of the organisation is required

Name of the organisation's representative, address, date GIS was prepared, list of exporting countries and types of grain to be imported, how the organisation's representative will maintain an up-to-date record of documents required for the importation & processing of grain.

Management responsibilities must be identified (who does what). e.g. document management, arrangement of inspection and audits, submission of information about grain uploading, movement etc to inspectors at least 5 days prior to arrival of the grain consignment, etc

Operation times and weather conditions must be provided to inspectors

e.g. vessel arrival time, start/finish times of shift operations for grain uploading and transport to approved transitional facilities.

Hazards must be controlled

Hazards must be identified: Hazards that may allow spillage of grain or escape of regulated pests must be identified as critical control points (CCPs) in the import process, and preventative measures developed for their control.

Critical Limits must be defined: See standard for more details.

A GIS Flow chart for hazard/CCP identification is required

The GIS flow chart must:

- Identify the process pathway to grain import, from the country of origin, to arrival in New Zealand, and transportation, storage at the transitional facility followed by subsequent processing and use of processed material and by-products.
- Specify the CCPs identified in the GIS at each stage of the import pathway.

(The standard includes HACCP²² guidelines for the operation of an approved GIS. Refer to pages 29-40 of the [operational standard](#) for full details.)

Workers must have clear instructions

e.g. who does what, where, when and how, to minimise hazard at CCPs.

There must be a system for document control

There are grain identification and traceability requirements

Imported grain must be initially identified and isolated to enable:

- (a) identification of grain from different origins where phytosanitary regulations and post entry requirements may differ until biosecurity clearance is provided;
- (b) identification of grain which has been fumigated or received other treatment;
- (c) control of grain consignments where there is contamination with regulated pests that may present a biosecurity risk;

²² Hazard Analysis and Critical Control Points

- (d) trace back of grain to imported consignments; and
- (e) specific requirements for further treatment (where required) and movement authorisation to other transitional facilities or third party use.

Access to relevant import and shipping documentation (e.g. import permits, phytosanitary certificates, consignment notes, air waybills, etc) must be available for trace-back purposes where and when requested by the MPI Quarantine Service inspector or authorised person.

Transport companies must be approved

Transitional facilities must be approved

There are equipment requirements

Inspection audits and sampling rules apply

A MPI Quarantine Service inspector or authorised person may audit (inspect and sample grain consignments for arthropod pests and contaminants other than regulated weed seeds) at any time after the consignment arrives at the border. The organisation's representative must ensure that all requirements of the MPI Quarantine Service inspector or authorised person are met. For more detail please refer to Section 6.4 - GIS Flow Chart for Hazard/CCP Identification of the operational standard.

There are record-keeping requirements

9.6 Processed plant material, including growing media

Processed plant material includes these specific pathway segments:

- Processed animal feed of plant origin
- Fertilisers and growing media of plant origin

Processed animal feed of plant origin

The relevant standard is the:

- [Import Health Standard for Processed Animal Feeds of Plant Origin](#).

This import health standard describes the phytosanitary requirements for the importation of processed animal feeds of plant origin for pet food and stock feed from all countries. This standard includes single ingredient stock feeds, generally comprising of grain by-products and seed meals, such as palm kernel meal, canola meal, and soybean meal. In addition the standard covers multiple-ingredient stock feeds and feed additives derived from plant material, such as feeds for non-ruminant animals and pets, which are often imported as retail/bagged products.

The import health standard requires that types of products imported under this standard require phytosanitary declarations to state that the product is processed in a premise dedicated to the production of plant-based products and is kept free of exposure to animal products. The majority of products are processed using high temperatures (at least 85 °C, sufficient to control most associated pests) and/or through other manufacturing processes (e.g. milling, pelleting) prior to import.

Inspections of shipments prior to export are required to verify that the product is free from regulated pests and contamination by any unprocessed plant material, vermin, birds, faecal material and other animal products, and conforms with New Zealand's import requirements. For products requiring a phytosanitary certificate, declarations are required to outline that the temperatures during processing have reached at least 85°C, that the product contains no viable seed, and that the product has been processed in a facility that is dedicated to the production of plant-based products only, preventing contamination. After processing, the product is required to be bagged, or stored in indoor facilities that are used exclusively for this purpose to reduce the likelihood of contamination. For bulk product imported in containers or in ship holds, fumigation is required prior to export.

Requirements for inspection, testing and treatment of consignments are listed within the entry conditions in Section 7 of the IHS. Inspection is required on arrival for the majority of product types.

Fertilisers and growing media of plant origin

There are currently three import health standards that cover fertilisers and growing media:

- cocopeat and coir fibre products;
- fertilisers and growing media of plant origin;
- the soil and peat section within the “standard for soil, rock, gravel, sand, clay, peat and water from any country”.

Coco peat and coir fibre products

The [*Import Health Standard for Coco Peat and Coir Fibre Products*](#) covers two groups of products. Coco peat products (Group A products; also known as Coir pith or Coir peat) made from coir fibres for use as a growing medium, which may be compressed or non-compressed e.g. grow slabs, grow bags, bales, blocks, discs, pots, starter cubes and small blocks. This includes the products known as “chips” and “crush”, derived from the whole chopped and crushed husk pieces. The standard also covers coir fibre products (Group B products) made from large coir fibres for a variety of uses e.g. mattress matting, basket liners, erosion and weed control matting, fibre blankets, domestic mats, brushes and fillers for industrial uses. The standard prescribes five available options for importing cocopeat and coir fibre products (Group A products):

- a) Approved quality production process with grow-out test in the exporting country;
- b) Import into a glasshouse transitional facility in New Zealand from an approved quality production process;
- c) Import with recognised treatment in the country of origin;
- d) Import with heat treatment on arrival in New Zealand;
- e) Approved quality production process with grow-out test on arrival in New Zealand.

Option A involves sourcing from an approved quality production process with grow-out test in the exporting country. Under this option, a consignment must be sampled in the source country for a grow-out test and may be dispatched ahead of the grow-out test result and held on arrival.

An import permit is also required, and applicants must provide information describing the quality processes used in manufacture and full supplier’s details. MPI reserves the right to decline an application. Production facilities may be audited when required by MPI, at the importer’s cost.

A completed phytosanitary certificate issued by the NPPO of the exporting country must accompany all products exported to New Zealand. The exporting country NPPO must provide the following additional declarations to the phytosanitary certificate:

“The coco peat consignment has been inspected in accordance with appropriate official procedures and found to be free of visually detectable soil, seeds, regulated pests, contaminant animal or plant material and other extraneous matter, and randomly sampled and tested by a grow-out test showing freedom from viable seeds based on a sample size of 1%.”

If seeds are found during visual inspection, the consignment must be rejected for export to New Zealand, unless the product has been treated.

Option B involves import into a glasshouse transitional facility in New Zealand. Under this option growers apply to MPI to become registered transitional facilities for using coco peat grow slabs and grow bags. The coco peat will remain under MPI control until it has been in use for 9 months. An import permit is required, and applicants must provide information describing the quality processes used in manufacture and full supplier’s details. MPI reserves the right to decline an application. Production facilities may be audited when required by MPI, at the importer’s cost.

A completed phytosanitary certificate issued by the NPPO of the exporting country must accompany all products exported to New Zealand. The exporting country NPPO must provide the following additional declarations to the phytosanitary certificate:

"The coco peat consignment has been inspected in accordance with appropriate official procedures and found to be free of visually detectable soil, seeds, regulated pests, contaminant animal or plant material and other extraneous matter."

Option C involves import with recognised treatment in the country of origin. Consignments must be held securely post treatment to prevent re-contamination. Approved treatments include ethylene oxide, heat treatment with low humidity heat at 85°C core temperature for 15 continuous hours with 40% relative humidity, or autoclaving at 118°C for 30 minutes at 100KPa.

A completed phytosanitary certificate issued by the NPPO of the exporting country must accompany all products exported to New Zealand. The exporting country NPPO must provide the following additional declarations to the phytosanitary certificate:

"The coco peat consignment has been inspected in accordance with appropriate official procedures and found to be free of visually detectable soil, seeds, regulated pests, contaminant animal or plant material and other extraneous matter."

Option D involves import with heat treatment on arrival in New Zealand. The consignment will be directed for heat treatment at a MPI-approved treatment facility. No phytosanitary certificate or import permit is required.

Option E involves sourcing from an approved quality production process with grow-out test on arrival in New Zealand. An import permit is required, and applicants must provide information describing the quality processes used in manufacture and full supplier's details. MPI reserves the right to decline an application. Production facilities may be audited when required by MPI, at the importer's cost. A completed phytosanitary certificate issued by the NPPO of the exporting country must accompany all products exported to New Zealand. The exporting country NPPO must provide the following additional declarations to the phytosanitary certificate:

"The coco peat consignment has been inspected in accordance with appropriate official procedures and found to be free of visually detectable soil, seeds, regulated pests, contaminant animal or plant material and other extraneous matter."

All consignments of Group A coco peat and coir fibre products which can not be given a biosecurity clearance under the chosen option, must be stored in a transitional facility until such time as they are sampled for a grow-out test, directed to a glasshouse facility, treated, reshipped or destroyed. If seeds are found during visual inspection prior to export, the consignment must be rejected for export to New Zealand, unless the product has been treated.

For Group B coir fibre products, exporters must ensure that consignments are free of pests and extraneous matter. A phytosanitary certificate is not required unless a treatment has been given. An import permit is not required. On arrival in New Zealand, MPI conducts inspection audits on a regular basis at the importer's expense for these products. The remainder of the consignment is not held during the audit process. MPI will sample one in every ten consignments of like coir fibre product per lot, per importer, on a regional port basis for regulated pests and contaminants.

Fertilisers and growing media of plant origin

The [Import Health Standard for Fertiliser and Growing Media of Plant Origin](#) applies to the importation of fertilisers, bioremediation products, potting mixed and growing media of plant origin. The types of products are separated into three groups:

Group A: Fertilisers, growing media and bioremediation products comprising:

- Plant products that have been produced by the decomposition of fresh or dry plant material (e.g. recycled cellulose wastes);
- Plant products produced as a by-product of other manufacturing, including oil seed meals used for fertiliser and composts that have been processed with heat (e.g. copra meal, cotton seed meal, mustard meal, neem meal, palm kernel meal, soybean meal and distillers dried grains); and
- other growing media units that have been manufactured from processed seeds or dried plant materials.

Group B: Manufactured fertilisers and growing media in granular, powder and liquid form containing only organic plant extracts (e.g. algae extracts, humic acid, fulvic acid).

Group C: Manufactured fertilisers and growing media containing live micro-organisms.

General requirements must be met:

- Fertilisers and growing media must be clean and free of seeds, pests, soil, animal material and any other contamination.
- There are requirements for packing and labelling, transportation, and documentation.
- Treatments for seed devitalisation may be required as an entry condition. Treatment options are:
 - Heat treatment with low humidity heat: A minimum of 85°C core temperature for 15 continuous hours with 40% relative humidity.
 - Autoclaving: A minimum of 121°C for 30 minutes at 100KPa.
- Any treatment completed prior to shipment must comply with the requirements of this import health standard. Those consignments treated prior to export must be accompanied by a valid treatment certificate issued by the operator/manager of the treatment company.

There are specific requirements for Group A products:

- A permit is required. Permit applications must include information describing the ingredients and manufacturing process.
- Manufacturer's information is required.
- A phytosanitary certificate must be issued by the NPPO (National plant protection organisation) of the exporting country, with the following additional declaration: "*The consignment has been inspected in accordance with appropriate official procedures and found to be free of any visually detectable soil, contaminant animal or plant material and other extraneous matter.*"
- Consignments are inspected at the border in a transitional facility or biosecurity control area that has been approved by MPI as suitable for inspecting plant products. A minimum composite sample of 5kg per consignment is to be inspected visually for contaminants.

There are specific requirements for Group B products:

- A permit is not required.
- Manufacturer's information is required.
- A phytosanitary certificate is not required.

- Inspection is not required for consignments which consist of individual retail packs up to 30kg. All other consignments require inspection to check for the presence of pests, soil, seeds or any other visually detectable contaminants.

There are specific requirements for Group C products:

- A permit is required.
- Manufacturer's information is required.
- A phytosanitary certificate is not required.
- Inspection is not required for consignments which consist of individual retail packs up to 30kg. All other consignments require inspection to check for the presence of pests, soil, seeds or any other visually detectable contaminants.

Actions are taken if pests and contaminants are intercepted:

Seeds: If any seeds are detected the importer is to be given the options of identification of the seeds, treatment to render the seeds non-viable, reshipment or destruction. If regulated seeds are found, the importer will be given the option for the product to be heat treated, reshipped or destroyed.

Live organisms other than seeds: If live organisms other than seeds are detected, the importer is to be given the option of pest identification, treatment, reshipment or destruction. If the organism is classified as regulated, the product must be treated, reshipped or destroyed as directed by the MPI inspector. The product may be given biosecurity clearance if the organism identified is classified as non-regulated.

Biosecurity clearance of a consignment will be given if the MPI inspector is satisfied that the entry conditions have been met.

The soil and peat section within the “standard for soil, rock, gravel, sand, clay, peat and water from any country”.

The [Import Health Standard for Soil, Rock, Gravel, Sand, Clay, Peat and Water from Any Country](#) covers imports of soil and excavated peat.

Section 2 of the IHS prescribes the import requirements for soil. Importation of soil is prohibited unless it meets one of the following conditions:

- Small quantities (up to 10kg) must be treated, on arrival, by raising the internal temperature of the soil to 100°C for at least 25 minutes.
- Individual samples in excess of 10kg or where heat treatment is not desired, may apply for an import permit including details of the consignment's origin, composition, destination and intended use. The importer will be advised of the conditions, which involves importation into a MPI-approved transitional or containment facility.
- Soil samples imported for chemical/physical analysis (but not for culture or isolation of organisms) must be directed to a transitional facility specifically approved for analysis/destruction. The soil must be destroyed/treated after analysis according to the method approved in the transitional facility's operating procedure.
- Soil imported for the intention of isolating micro-organisms requires an import permit from the Plant Imports Team prior to shipment. An approval under the Hazardous Substances and New Organisms Act implemented by the Environmental Protection Authority (EPA) is required if the soil is likely to contain any new organisms.

The standard also states that soil that is a contaminant on a consignment must be treated or destroyed.

Section 5 of the IHS prescribes the import requirements for excavated peat. Raw peat from any country, if accompanied by a Phytosanitary certificate indicating that the commodity has been autoclaved at 120°C for 30 minutes at 100 kPa, may be given biosecurity clearance without inspection on arrival in New Zealand.

Peat from Australia, Canada and the European Union (Austria, Belgium, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Poland, Portugal, Slovakia, Slovenia, Spain, Sweden, The Netherlands, and United Kingdom) must be free of soil, regulated seeds, regulated pests, and contaminants (eg. leaves and plant debris) and accompanied by a phytosanitary certificate with the following additional declarations:

"The peat in this consignment is free of soil, regulated seeds, and contaminants and packed in clean packaging [where appropriate]."

Inspection on arrival in New Zealand is required to confirm these phytosanitary requirements have been met. From each sea container one bale of peat will be selected and a 10 litre sample inspected. If free of live regulated pests, soil, regulated seeds and contaminants biosecurity clearance may be given.

Alternatively, raw peat from Canada can be imported if it is free of soil, regulated pests, regulated seeds, and contaminants (e.g. leaves and plant debris) and accompanied by a Phytosanitary certificate with the following additional declaration(s):

"The peat in this consignment conforms to the Canadian Peat Certification Program , and is packed in clean packaging [where appropriate]."

Inspection on arrival in New Zealand is required to confirm these phytosanitary requirements. From each sea container, one bale of peat will be selected and a sample inspected. If free of live regulated pests, soil, regulated seeds and contaminants biosecurity clearance may be given.

In addition, the following peat products are exempt from inspection as they have been previously approved as having effective manufacturing practices for the mitigation of biosecurity risks associated with peat:

- "BioGreen (Nylex) Superior boost peat pellets", manufactured by Biogreen Ltd, Australia
- "Float absorb", refined peat, manufactured in Sweden
- "Cansorb", "Peatsorb" and "Spillsorb" manufactured by Cansorb, Canada
- "Peat pots" manufactured by Papteries Henri Boucher
- "Jiffy" brand peat pots
- "Fertil pots" manufactured by Fertil, France
- "Fertiss plugs" manufactured by Fertil, France.

Peat as a packing material has the same import requirements as consignments of raw peat. A phytosanitary certificate is required with the declarations described in the preceding sections. Inspection is required to confirm the peat is free of live regulated pests, soil, regulated seeds and contaminants. The peat associated with the commodity sample will be inspected (eg. for 600 units of flower bulbs the peat associated with these bulbs will be inspected). If free of live regulated pests, soil, regulated seeds and contaminants, biosecurity clearance may be given.

The IHS also states that peat is not permitted when associated with plants as a growing media.

9.7 Inorganic Risk Materials

Inorganic risk materials (IRMs) are types of inorganic cargo that are very commonly associated with pests.

For full details of the standards for inorganic risk materials refer to these documents:

- [Import Health Standard for Importation of Inorganic Risk Materials. Short Name: MAF-STD-IRM](#)
- [Standard for General Transitional Facilities for Uncleared Goods. Requirements for Facilities and Operators BNZ-STD-TFGEN](#)

In summary, the biosecurity risks of IRMs are managed at the border. The IHS requires that IRMs must arrive in New Zealand inside sea containers and the material must be clean and free of regulated bioscurity contaminants and pests or meet specified thresholds. The risk management at the border involves mandatory treatment (fumigation or heat) for the majority of IRM categories or inspection to verify that the consignments comply with the standard. All containerised consignments are directed to MPI approved transitional facilities where they are checked by accredited persons (low risk consignments) or by MPI Inspectors (high risk consignments). If consignments do not comply then they may be re-shipped to origin, or cleaned or treated as is most appropriate.

The [standard for Inorganic Risk Materials](#) states the minimum legal requirements that must be met at the border [i.e. at port of first arrival (POFA) and at transitional facilities (TFs)] when importing full container loads of Inorganic Risk Materials (IRMs) from any country into New Zealand (NZ).

Full container loads of IRMs include the following categories (but may not be limited to):

- (a) cullet (broken or whole glass items for recycling);
- (b) industrial residues, sweepings and waste (IRSW) for precious metal recovery;
- (c) material specifically permitted to enter NZ for destruction/disposal (see Appendix 1);
- (d) scrap metal (for recycling);
- (e) used (risk items) parts (for recycling or re-use)‡; and
- (f) used vehicle batteries (for reconditioning or recycling).

‡Note: Agricultural/forestry machinery parts, break bulk items (unable to be containerised) and used vehicle parts are excluded and not covered by this standard.

Documentation/information requirements are:

Information relating to IRM consignments must be received by MPI prior to arrival. This includes: (1). Commodity type. (2). Port of origin. (3). Shipment details (for example vessel, consignee, consignor, container number, treatment certification [if conducted offshore and prior permission was obtained from MPI]).

IRMs that are contained/compartimentalised incorrectly are prohibited from entering New Zealand. However, once landed in New Zealand, MPI is obliged to treat the items rather than re-ship them.

IRMs that do not meet requirements of the [standard for Inorganic Risk Materials](#) will not be given biosecurity clearance.

The Biosecurity Requirements are:

All containers of IRMs must be clean and free of regulated biosecurity contaminants and pests, or meet the thresholds specified in Section 8.1 of the [standard for Inorganic Risk Materials](#).

There are Mandatory Treatment and MPI Inspection Requirements:

Category	Treatment	Inspection Requirements at POFA or TF
Cullet (broken/whole glass items for recycling)**	Fumigation or heat treatment at POFA within 12 hours of arrival	Must begin within 4 hours of TF unloading unless another risk management system is approved.
IRSW (for precious metal recovery)	Must be stored in quarantine area at TF until incinerated or treated as per approved MAF treatment.	Must arrive at POFA in sealed packaging, inspection on arrival by MAF unless another risk management system is approved.
Material permitted to enter NZ for destruction or disposal (such as Asbestos)	Fumigation. See Appendix 1: Section 3.	6-sided inspection at the POFA.
Scrap metal**	Fumigation or heat treatment at POFA within 12 hours of arrival.	6-sided inspection at the POFA, then scrap metal inspection within 4 hours of TF unloading.
Used batteries (from vehicles)**	Fumigation/heat treatment at POFA within 12 hours of arrival or at the TF within 12 hours of arrival.	Must begin within 4 hours of TF unloading unless another risk management system is approved.
Used parts (risk items)‡	Not mandatory unless contaminants or pests are found.	Must begin within 4 hours of TF unloading unless another risk management system is approved.

** Unless prior written agreement has been received from MPI permitting pre-export treatment or covered by another inspection regime.

Any unidentified liquid contaminants present after fumigation must be chemically treated (unless another destruction method is agreed).

Consignments consisting of “as new” off-cuts or uncontaminated scrap metal requires no further inspection after treatment.

There are rules about who can open IRM consignments and when they can be opened and unloaded.

Detection of biosecurity contaminants or pests on containers will result in mandatory cleaning or treatment at the port of first arrival of further MPI action.

Compliant Importers can apply to be included in an Audit Inspection Regime.

9.8 Vehicles & Machinery (Vehicle-all)

For full details of the standards for new and used vehicles and machinery refer to these documents:

- [Import Health Standard for Vehicles, Machinery & Tyres. Short Name: Vehicle-all](#)
- [Import Health Standard for Vehicles, Machinery & Tyres Guidance Document](#)

In summary, the biosecurity risks associated with used vehicles and machinery are managed both offshore (pre-export) and at the border. Vehicles and machinery are imported either under an approved system that manages the risk offshore or imported directly to New Zealand to be inspected and cleared by MPI on arrival (treated if required).

For used vehicles, offshore approved systems are designed to mitigate many of the biosecurity risks associated with contaminants, such as weed seeds, leaves, water, soil and live pests before the vehicle or machinery arrive to New Zealand. These systems are mainly based in Japan as approximately 95% of all imported used vehicles arriving to New Zealand come from Japan. All other used vehicles and machinery that do not go through an approved system are managed on arrival by MPI prior to being given clearance.

The [vehicle-all standard](#) specifies the requirements that need to be met for the effective management of risks associated with the importation of vehicles/machinery/tyres before they may be imported, moved from a biosecurity control area or a transitional facility, or given a biosecurity clearance.

The biosecurity requirements are:

All vehicles/machinery/tyres imported into New Zealand must be clean, internally and externally.

The [vehicle-all guidance](#) strongly encourages that vehicles/machinery/tyres are cleaned offshore/pre-border.

The imported vehicles/machinery/tyres must be accompanied by documentation that provides the following information about cleaning:

MPI confirmation that cleaning has been carried out in accord with a MPI Chief Technical Officer (CTO)-approved cleaning system/process to meet or exceed contaminant threshold levels. This confirmation must be provided whether cleaning has occurred offshore or onshore.

For vehicles, machinery & tyres that are new, information must be made available to MPI by the importer describing/showing that the manufacturing system is sufficient to meet threshold levels and that these goods have been stored (including the length of time) and transported to the ship/aircraft in such a way to ensure the risks of biosecurity hazard contamination have been mitigated between manufacture and export.

Other required documentation, that must be CTO-approved, is:

- Identification (e.g., vehicle identification number (VIN)),
- Make and model (applies to whole vehicles and units of machinery only),
- Port of origin,
- Shipment details, including container number (if applicable),

- Manifest of inner cargo, including number and type of tyres (if applicable),
- Name of consignor, name of consignee and consignee's full address.

Special requirements apply to the following items:

- Used vehicle parts (containerized), including those imported for dismantling, used tyres (deflated or not on rims). These items must be fumigated, or treated by other CTO-approved means.
- Used ropes attached to agricultural, forestry and horticultural vehicles/machinery. These items must be heat-treated or treated by other CTO-approved means prior to receiving biosecurity clearance.
- Refer to the [vehicle-all guidance](#) for further information.

Non-compliant vehicles/machinery/tyres will be decontaminated onshore by a means CTO-approved by a MPI Chief Technical Officer prior to release.

OR the vehicles/machinery/tyres may be reshipped or destroyed.

In the absence of CTO-approved biosecurity interventions, MPI will implement one of two intervention options in order to meet the requirements of the standard:

Option 1:

- Physically inspected for the presence of visible contaminants.
- Inspected using a videoscope for the presence of concealed contaminants.
- If contaminants are detected, then remove/inactivate concealed contaminants in an approved manner (e.g. heat-treatment, or fumigation).

Option 2:

- Physically inspected for the presence of visible contaminants.
- Heat treated or fumigated in an approved manner to remove/inactivate concealed contaminants.

Vehicles/machinery/tyres that meet all requirements of the [vehicles-all standard](#) will be issued with a biosecurity clearance.

9.9 Containers

9.9.1 Sea Containers

For full details of the standards refer to these documents:

- [Import Health Standard for Sea Containers. Short Name SEACO.](#)
- [Guidance Document in support of the Import Health Standard for Sea Containers](#)
- [Standard for General Transitional Facilities for Uncleared Goods. Requirements for Facilities and Operators BNZ-STD-TFGEN](#)

In summary, the biosecurity risks associated with sea containers are managed both offshore (pre-export) and at the border under IHSs as mentioned above. Offshore exporters must also complete a Container Declaration which attests to cleanliness and freedom from risk goods such as wood or packing material in the containers.

All containers must be directed to a transitional facility (TF), and all containers are inspected at the TF (except for containers that enter New Zealand under programmes of equivalence and there is confidence that they meet the requirements of the standard, e.g. SCHS containers described below). The method of inspection is dependent on the risk-profile of the container. Low risk containers are inspected/checked by an accredited person (trained under MPI biosecurity requirements). In contrast, high risk containers are inspected by MPI inspection staff.

Under the principles of equivalence, the Sea Container Hygiene System (SCHS) operates in the Pacific region to manage containers from Papua New Guinea, the Solomon Islands and Samoa (Tonga is in the final stages of approval; Fiji is in the process of developing a SCHS). The SCHS ensures empty containers are cleaned on all sides externally and internally, and ensures that fully loaded containers are cleaned on all sides externally before they are exported to New Zealand. All containers are sprayed with a barrier spray to prevent re-infestation with arthropods and a pesticide management programme is also used to kill arthropods and molluscs in the approved storage areas prior to export to New Zealand. Containers are stickered or labelled to show they have been processed under SCHS requirements, and on board vessels they are segregated from non-SCHS containers. Vessels that carry SCHS containers are also kept clean and free of pests to avoid cross-contamination. MPI has a threshold for certain pests and contaminants and inspects 100% of containers initially. Countries and vessels that deliver containers that comply have future border-interventions reduced. Whereas countries and vessels that deliver non-compliant containers have future border-interventions increased. Inspection of SCHS containers at the New Zealand border is based on the level of compliance from the previous 3 month period.

The [sea container standard](#) specifies the requirements that need to be met for the effective management of risks associated with imported sea containers. The [sea container guidance document](#) outlines how the requirements should be met, i.e. processes and procedures supply chain parties and MPI inspectors should follow.

The biosecurity requirements are:

All containers imported into New Zealand must be clean and free of pests and biosecurity contamination. Inspections or checks to verify this must be carried out by

legally approved persons (e.g. MPI inspectors or accredited persons). It also helps to identify those containers that pose no risk or minimal risk to New Zealand allowing these to be released from the port environments onto their next destination quickly.

A '12 hour' rule requires import container information to be submitted to MPI at least 12 hours prior to container discharge in New Zealand.

The information will be assessed by MPI to determine the regulatory interest of a container and subsequent actions to be taken. Containers with absent or incomplete information will be deemed of high regulatory interest.

This rule also helps to identify those containers that pose no risk or minimal risk to New Zealand allowing these to be released from the port environments onto their next destination quickly.

The information required is:

- Container number
- Container type
- Country of origin
- Port of loading
- NZ port of discharge
- Importer details
- Exporter details
- NZ transitional facility destination
- Quarantine declaration
- Complete and accurate description of the cargo or tariff code, including all packaging.

Containers get transported from ports to transitional facilities. These are the over-arching rules about container transportation and handling at the ports and transitional facilities:

Containers must not be removed from a port of discharge until container information has been assessed by MPI, and directions have been actioned by MPI, or relevant parties.

For all uncleared containers being transported from a port to a transitional facility, or between transitional facilities for devanning, treatment or other action, the importer or importer's agent must provide all relevant information and MPI directions about the container to the transport operator and the transitional facility.

No person is permitted to open or de-van a container until notification of MPI requirements has been received at the transitional facility.

Containers must be de-vanned at the transitional facility in the presence of a MPI Inspector or an accredited person (as directed by MPI).

The process at the port for all containers is as follows:

After discharge from a vessel, all containers should be placed on a hard sealed area free from debris and soil. Prior to movement from the port the following requirements should be carried out:

All container information is sent to and has been received and assessed by MPI;
and

EITHER:

MPI has processed containers of high regulatory interest. Processing should occur within 48 hours of discharge;

OR:

An accredited person or a person operating under the supervision or control of an accredited person has externally checked containers of low regulatory interest (as per their accredited persons training). Checks should occur within 48 hours of discharge;

OR:

Containers are managed under an approved decontamination or container management system approved by MPI.

Containers of high regulatory interest will be inspected at ports using one of the following methods:

EITHER:

All containers must receive an external 6-sided inspection and empty containers must receive an internal inspection by MPI as soon as practicable, but should be completed within 48 hours of discharge from the vessel;

OR:

Containers must be directed for treatment as per the MAFBNZ treatment standard BNZ-STDABTRT. Treatment should begin within 48 hours of discharge;

OR:

Containers must be managed under an equivalent decontamination or container management system approved by MPI [e.g. offshore sea container hygiene system (SCHS) or containers are stored in an area that is appropriately managed to contain biosecurity pests and approved by MPI].

NB: Containers carrying cargo of biosecurity interest may require further inspection and/or action (e.g. vent sealing) by MPI prior to leaving the first port of discharge.

The process at transitional facilities is as follows:

The requirements for transitional facilities and accredited persons are contained in the [Standard BNZ-STD-TFGEN: General Transitional Facilities for Uncleared Goods](#).

The inspection requirements for containers at transitional facilities is described in the [sea container guidance document](#).

Wood packaging and other restricted packaging material get a special mention in the sea container standard:

All wood packaging must be actioned as per the [Standard Wood Packaging Material from All Countries](#). Restricted or other contaminated packaging must be segregated, secured and treated as per this standard.

9.9.2 Air Containers

For full details of the air container standards refer to these documents:

- [Import Health Standard 152.07.011, Air Containers from Any Country.](#)

Note: the standard refers only to the container, not to any cargo or packing within. New Zealand airports where air containers can be landed are Auckland, Wellington and Christchurch International Airports.

The biosecurity risks associated with Air Containers are managed at the border.

The biosecurity requirements are:

All parts of air containers, including the internal and external sides, must be free of contamination by any of the following:

- animals, insects or other invertebrates (any life cycle stage), egg casings or rafts, or any organic material of animal origin (including blood, bones, fibre, meat, secretions, excretions, etc);
- plants or plant products (including fruit, seeds, leaves, twigs, roots, bark, saw dust, or other organic material); or
- soil or water.

It is the responsibility of the air cargo companies to ensure that air containers comply with the conditions of the standard.

A container that does not comply with the conditions of the standard will be decontaminated prior to release from the airport area or may be returned (airfreight to point of origin).

The requirements of the air cargo company are:

- Remove air containers from aircraft and moved to any air side (a security area at international airports) point for unpacking or storage.
- Air containers may be removed from air side and moved to another airport store or to a landside air cargo company (approved as a Transitional facility) provided a compliance agreement is in operation between the air cargo company and MPI. [Note: Auckland currently has 42 transitional facilities, Christchurch has six, and Wellington has one; some transitional facilities process both air and sea containers].
- There must be a MPI-approved, documented procedure that conforms with the requirements of the standard.
- The shortest practical route is taken transporting air containers between the airport and the company's facility.
- Any live animal or insect contamination of the air containers will immediately be reported to MPI and any action directed by MPI will be undertaken.
- Any non-insect contamination will be collected by the air cargo company and placed in an approved receptacle. The contaminated air container identifying number shall be logged, along with the overseas airport of loading and the carrier. Any direction by MPI will be undertaken.
- Air containers containing cargo for only one consignee and intended to be delivered intact within the container to that consignee shall be inspected for contaminants by the

Transitional Facility Operator prior to delivery and returned directly on completion of unloading.

- Empty containers about to leave the air cargo company's store shall be inspected by the operator for contaminants, and dealt with as described above.
- Contaminants collected in an approved receptacle are to be destroyed/treated at a facility that complies with MAF Reg Standard 152.04.05F.
- Sufficient records shall be kept by the air cargo company to ensure that compliance with the above can be monitored.

The requirements of MPI are:

- MPI shall undertake regular monitoring to ensure that the above requirements are met.
- The details of any contamination of air containers shall be kept by MPI and reported on quarterly.
- Where an air cargo company fails to meet the conditions of this standard, air containers will not be directed to go to that facility until the air cargo company can satisfy MPI that they can meet the conditions. Alternatively, the Director General may cancel their approval as a transitional facility.

9.10 Bulk Inorganic Fertiliser including Guano fertiliser (loose in vessel holds)

For full details of the standards refer to these documents:

- [MPI Import Health Standard for Bulk Inorganic Fertiliser \(including Guano Fertiliser\). Short Name: INORGFERT.ALL](#)
- [Guidance Document to the Import Health Standard for Bulk Inorganic Fertiliser including Guano Fertiliser](#)

In summary, the biosecurity risks of bulk inorganic fertiliser (including guano) are managed both pre-border and at the border. The IHS requires that fertiliser arrives in NZ clean and free of biosecurity risk material or meets specified thresholds. The pre-border risk management for all bulk-fertilisers involves vessel inspection and requires certification that specifies that the consignments are below threshold levels for contaminants and that the vessel itself is free from biosecurity risk material. Depending on the type of fertiliser, sampling, analysis, or treatment may be required. The risk management at the border involves inspection of all consignments to verify that they comply with the standard. Consignments that do not comply will be held without permission to unload (in the first instance) and further, may be either destroyed, or re-shipped, or treated, as is appropriate.

The [bulk inorganic fertiliser import health standard](#) applies to the importation of the following types of bulk fertiliser:

- Direct application fertiliser (DAF)
- Guano (also for direct application use)
- Fertiliser for further processing (including fertiliser ingredients).

The import health standard does not cover importation of liquid fertiliser, or bagged or containerised inorganic fertiliser.

The requirements of the standard must be met before bulk inorganic fertiliser consignments enter New Zealand, or are moved from a biosecurity control area, or are moved to a transitional facility (TF) or are provided with a biosecurity clearance or direction.

The biosecurity outcome is:

Fertiliser imported into NZ must be substantially free of the biosecurity risk material specified in the following table (Permitted levels of biosecurity risk material) or it must be directly managed by other approved methods. Permitted levels of biosecurity risk material for:

DAF and Guano: contamination of fertiliser for direct application may occur during production or during loading into contaminated vessels in the country of origin. The following levels of contamination are permitted:

Biosecurity Risk Material	Permitted Level per 5KG Hold Sample
Arthropods & Molluscs (live)	Nil
Animal material or by-products	Nil
Plant material – dead/desiccated	1 piece (not exceeding 5cm ²)
Plant material - fresh/green & regulated grains/seeds	Nil
Soil (clods, lumps etc)	5 grams

Fertiliser for further processing: this fertiliser **may** contain levels of contaminants exceeding those listed above as this material may only be imported under a management system approved by MPI.

Compliant consignments: will have a biosecurity clearance actioned or issued

Non-compliant consignments: may be re-shipped or destroyed

There are provisions for equivalent risk management systems/measures

There are pre-shipment requirements (sampling, analysis, vessel requirements) for DAF (excluding guano):

DAF must be sampled to form a 5 kg composite sample from each vessel hold containing fertiliser. DAF must be sampled and analysed in accordance with ISO sampling requirements prior to shipment to NZ (unless another on-arrival arrangement for sampling is permitted by MPI as part of an approved system). This is to determine the constituent make up and presence or absence of biosecurity risk.

Refer to the [bulk inorganic fertiliser import health standard](#) for rules about sample taking, handling, and analysis.

Any vessel-hold used to transport DAF to NZ must be inspected and certified by a national regulatory authority, regional or state government or by an independent third party organisation (where this is applicable) to ensure freedom from contamination from previous cargoes and verifying the cleanliness of the hold (including ledges, hold covers and all associated structural parts).

DAF must be accompanied by the correct certification:

- Fertiliser sampling certificate
- Fertiliser analysis certificate
- Vessel (cleanliness) certificate

There are pre-shipment requirements (treatment, vessel requirements) for Guano:

Guano (intended for direct application) must be heat treated (in the country of origin) at a minimum temperature of 100°C for at least 1 minute.

Any vessel hold used to transport guano to NZ must be inspected and certified by a national regulatory authority, regional or state government or by an independent third party organisation where this is applicable to ensure freedom from cross contamination from previous cargoes after heat treatment and to verify the cleanliness of the hold (including ledges, hold covers and all associated structural parts).

Guano must be accompanied by the correct certification:

- Treatment certificate
- Vessel (cleanliness) certificate

Fertiliser for further processing must be imported under a MPI approved system. A documented system must:

Specify the specific details of consignments, management of pre-entry activities through arrival in NZ, border clearance, and transportation to the TF where the material will be stored and how it will be further processed; and

Outline the critical control points, preventative management systems, measures and processes used by the importer to mitigate and/or manage any biosecurity risks that maybe associated with their products.

Importers must submit their system to MPI for assessment and approval prior to importation of fertiliser for further processing.

10 Appendix B – List of priority pasture species

The plant species listed in the following table were deemed to be New Zealand's priority pasture species, for the purposes of conducting a pasture-pest hazard identification project. The priority pasture species were agreed by consensus of Beef+Lamb NZ, Dairy New Zealand, Deer Industry New Zealand, Dairy Companies Association of New Zealand and MPI.

Plant type	Scientific Name	Common name
Legume	<i>Trifolium</i> species (<i>T. repens</i> , <i>T. pratense</i> , <i>T. subterraneum</i>)	Clover species (White clover, red clover, subterranean clover)
Legume	<i>Medicago sativa</i>	Lucerne
Grass	<i>Lolium</i> species (<i>L. perenne</i> , <i>L. x boucheanum hybridum</i> , <i>L. multiflorum</i>)	Ryegrasses (Perennial ryegrass, hybrid ryegrass, annual ryegrass)
Grass	<i>Dactylis glomerata</i>	Cocksfoot
Grass	<i>Festuca arundinacea</i>	Tall Fescue
Grass	<i>Argrostis capillaris</i> (syn <i>Agrotis fenuis</i>)	Browntop
Herb	<i>Cichorium intybus</i>	Chicory
Herb	<i>Plantago lanceolata</i>	Plantain
Grass (2nd lowest priority)	<i>Phleum pratense</i>	Timothy
Grass (lowest priority)	<i>Cynosurus cristatus</i>	Crested Dogstail