

**Import Health Standard
Commodity sub-class: Fresh fruit/vegetables**

**Mangoes
(*Mangifera indica*)
from Vietnam**

ISSUED

Issuance: 24 April 2014

Issuance

This import health standard for fresh mango fruit from Vietnam has been issued pursuant to section 22 of the Biosecurity Act (1993).

Signature of Director, Plants, Food and Environment
Acting pursuant to delegated Director-General authority

Date: 24 April 2014

IMPORT HEALTH STANDARD: FRESH FRUIT/VEGETABLES

Mango (*Mangifera indica*) from Vietnam

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Part A. Background

Scope

This import health standard describes the requirements to be met to enable biosecurity clearance to be given for fresh mango fruit (*Mangifera indica* L.) for human consumption imported into New Zealand from Vietnam. The commodity description “mango” for human consumption is defined as commercially-produced mango fruits with skin, flesh and seed, with a small portion of stem attached but not including leaves.

Definitions

The definitions of relevant phytosanitary terms used in this standard are consistent with the terms stated in the *International Standards for Phytosanitary Measures No.5*, produced by the International Plant Protection Convention (IPPC), unless the context otherwise requires or the definition is stated below.

Import health standard means a document issued pursuant to section 22 of the Biosecurity Act 1993 on behalf of the Director General permitting entry to New Zealand of a specific product under certain conditions.

MPI Import and Export Standards means the section within the Ministry for Primary Industries which is responsible for regulatory biosecurity functions.

Maximum allowable prevalence means the level of infestation that is the threshold, above which phytosanitary actions based on inspection would be applied.

Unit means one mango fruit.

Regulated organisms means those organisms for which phytosanitary actions would be undertaken if they were intercepted/detected.

Outcome

The agreed pre-shipment or in-transit measures for high risk regulated organisms have been undertaken and the mangoes are free of regulated organisms.

Performance measure

The high risk regulated organisms as in *Part C* require specific risk mitigation measures.

The Maximum Allowable Prevalence for visually detectable regulated organisms on fresh fruit/vegetables is as follows: 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 600 units).

Equivalence

Under section 22 of the Biosecurity Act 1993, MPI can amend the relevant IHS by adding an approved equivalent measure; once that measure is proven to maintain at least the same level of protection assured by the measures in this IHS. Equivalence is determined by MPI in accordance with ISPM No.24: *Guidance for the determination and recognition of equivalence of phytosanitary measures* (2005).

Part B. General import requirements for all fresh fruit/vegetables for consumption

The import health standard 152.02 (IHS152.02: Importation and Clearance of Fresh Fruit and Vegetables into New Zealand) contains the phytosanitary requirements that must be met for all fresh fruit and vegetable commodities that are allowed to be imported into New Zealand. The IHS 152.02 outlines transit requirements, inspections on arrival in New Zealand and actions undertaken upon organism interceptions.

The import health standard 152.02 can be found at the MPI website (<http://www.biosecurity.govt.nz/files/ihs/152-02.pdf>).

Part C. Additional requirements for mangoes from Vietnam

Phytosanitary measures

All mango fruit for export to New Zealand must be sourced from orchards that produce commercial mangoes under standard cultivation, pest-control, harvesting and packing activities. During harvest, infested, infected or damaged fruit must be discarded prior to treatment.

MPI requires a mandatory pre-export treatment of mangoes for high risk regulated organisms, including economically important fruit fly species. MPI currently approves irradiation at a minimum absorbed dose of 400 Gy or, vapour heat treatment at fruit pulp temperatures at or above 46.5°C for at least 30 minutes, or vapour heat treatment at fruit pulp temperatures at or above 47 °C for at least 20 minutes as a treatment for regulated arthropod pests associated with mangoes from Vietnam.

The application of vapour heat treatment or irradiation must be in accordance with the Official Assurance Programme between Vietnam's NPPO and MPI. In addition, the application of the irradiation treatment must be carried out in accordance with the International Standards for Phytosanitary Measures publication No.18 *Guidelines for the use of irradiation as a phytosanitary measure*.

Inspection of the consignment

Once the phytosanitary measures have been undertaken for the high risk regulated organisms, the Vietnam NPPO is required to sample and visually inspect the consignment according to official procedures for all the regulated organisms specified in the regulated organism list (Part E) to ensure it conforms with New Zealand's current import requirements.

A phytosanitary certificate should not be issued if live regulated organism(s) are detected, unless the consignment is effectively treated. If organisms are found which are not listed in the import health standard, the Vietnam NPPO must establish their regulatory status. This list of actionable regulated organisms is available in MPI's "Biosecurity Organisms Register for Imported Commodities" (BORIC), online at <http://www.biosecurity.govt.nz/pests/registers/boric>.

If an organism found during export inspection by the Vietnam NPPO is not listed in BORIC, the Vietnam NPPO must contact MPI to establish the regulatory status of the organism.

Part D. Phytosanitary certification

A completed phytosanitary certificate issued by Vietnam's NPPO must accompany all mango consignments exported to New Zealand. The phytosanitary certificate must be in English and an original. Bilingual certificates are acceptable as long as English is one of the languages.

Before a phytosanitary certificate is issued, Vietnam's NPPO must be satisfied that the following activities required by MPI have been undertaken.

The mangoes have:

- (i) been inspected in accordance with appropriate official procedures and found free from regulated organisms.

AND

- (ii) undergone treatment that is effective against regulated arthropod pests in accordance with terms of the Official Assurance Programme between MPI and the Ministry of Agriculture and Rural Development (MARD) of Vietnam.

Additional declarations to the phytosanitary certificate

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

- A. For mangoes that have undergone treatment by irradiation at 400 Gy the additional declarations required are:

The mangoes in this consignment have:

- (i) been visually inspected in accordance with appropriate official procedures and found free from regulated plant pathogens.

AND

- (ii) been produced in accordance with terms of, and treated as per Appendix 3 of the Official Assurance Programme between MPI and the Ministry of Agriculture and Rural Development (MARD) of Vietnam.

NOTE: Full details of the irradiation treatment, including dosage, must be included in the “Disinfestation and/or Disinfection Treatment” area of the phytosanitary certificate or as an endorsed attachment to the phytosanitary certificate.

OR

- B. For mangoes that have undergone vapour heat treatment the additional declarations required are:

The mangoes in this consignment have:

- (i) been visually inspected in accordance with appropriate official procedures and found free from regulated organisms.

AND

- (ii) been produced in accordance with terms of, and treated as Appendix 3 of the Official Assurance Programme between MPI and the Ministry of Agriculture and Rural Development (MARD) of Vietnam.

NOTE: Full details of the vapour heat treatment, including temperature and duration, must be included in the “Disinfestation and/or Disinfection Treatment” area of the phytosanitary certificate or as an endorsed attachment to the phytosanitary certificate.

Part E. Regulated organisms list for fresh mangoes from Vietnam

Scientific Name	Organism Type	Common Name	Action on Interception
<i>Ceratocystis paradoxa</i> (anamorph: <i>Chalara paradoxa</i>)	Fungi	basal rot	2
<i>Macrophoma mangiferae</i>	Fungi	black rot	2
<i>Pestalotiopsis mangiferae</i>	Fungi	grey leaf spot of mango	2
<i>Aphis craccivora</i>	Insect	black bean aphid	2a or 4
<i>Aphis gossypii</i>	Insect	cotton aphid	2a or 4
<i>Aphis spiraecola</i>	Insect	spiraea aphid	2a or 4
<i>Aulacaspis tubercularis</i>	Insect	mango scale	2a or 4
<i>Bactrocera carambolae</i>	Insect	Carambola fruit fly	3 or 4
<i>Bactrocera correcta</i>	Insect	guava fruit fly	3 or 4
<i>Bactrocera curcurbitae</i>	Insect	melon fly	3 or 4
<i>Bactrocera dorsalis</i>	Insect	Oriental fruit fly	3 or 4
<i>Bactrocera tau</i>	Insect	fruit fly	3 or 4
<i>Bactrocera tuberculata</i>	Insect	fruit fly	3 or 4
<i>Bactrocera zonata</i>	Insect	peach fruit fly	3 or 4
<i>Ceroplastes floridensis</i>	Insect	Florida wax scale	2a or 4
<i>Ceroplastes rubens</i>	Insect	Japanese waxen worm	2a or 4
<i>Chrysomphalus aonidum</i>	Insect	Florida red scale	2a or 4
<i>Chrysomphalus dictyospermi</i>	Insect	Spanish red scale	2a or 4
<i>Coccus viridis</i>	Insect	green coffee scale	2a or 4
<i>Ferrisia virgata</i>	Insect	guava mealybug	2a or 4
<i>Maconellicoccus hirsutus</i>	Insect	pink hibiscus mealybug	2a or 4
<i>Nipaecoccus nipae</i>	Insect	coconut mealybug	2a or 4
<i>Nipaecoccus viridis</i>	Insect	hibiscus mealybug	2a or 4
<i>Oligonychus mangiferus</i>	Insect	mango spider mite	2a or 4
<i>Pseudaulacaspis cockerelli</i>	Insect	Cockerell's scale	2a or 4
<i>Pseudaulacaspis pentagona</i>	Insect	white peach scale	2a or 4
<i>Rastrococcus spinosus</i>	Insect	mealybug	2a or 4
<i>Toxoptera aurantii</i>	Insect	black citrus aphid	2a or 4

Actions on interception

- 1 Removal of trash – organisms are associated with other plant parts and/or soil
- 2 Treat, resort, reship or destroy
- 2a Treat, reship or destroy. Suspend pathway
- 3 Reship or destroy. Suspend pathway
- 4 No action if irradiation has been certified to be used as a pre-export measure

NOTE: The suspension of the pathway could be at the production area, packhouse, province or country level depending on the significance of the risk organism and the interception.