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

Longan
(*Dimocarpus longan*)
from Thailand

**ISSUED** 

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## Issuance

port health standard for fresh longan for consumption from Thailand has been issued at to section 24A of the Biosecurity Act (1993).
Signature of Director, Plants, Food and Environment Acting pursuant to delegated Director-General authority
Date:

## IMPORT HEALTH STANDARD: FRESH FRUIT/VEGETABLES

## Longan (Dimocarpus longan) from Thailand

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## Part A. Background

#### Scope

This document describes the requirements to be met to enable biosecurity clearance to be given for fresh longan fruit (*Dimocarpus longan*) for human consumption imported into New Zealand from Thailand. The commodity description "longan" for human consumption is defined as commercially produced longan (*Dimocarpus longan*), with a maximum of 15cm panicle attached to the fruit but without stems, leaves, roots or any other plant parts.

#### **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 longan 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 longan 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 phytosanitary import requirements for all fresh fruit and 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 (<a href="http://www.biosecurity.govt.nz/files/ihs/152-02.pdf">http://www.biosecurity.govt.nz/files/ihs/152-02.pdf</a>).

## Part C. Additional requirements for longan from Thailand

#### Phytosanitary measures

All longan fruit for export to New Zealand must be sourced from orchards that produce commercial longan fruit 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 longan fruit for high risk regulated organisms, including economically significant fruit fly species. MPI currently approves vapour heat treatment or cold disinfestation or irradiation at the following specifications for fruit flies:

Vapour heat treatment (VHT)	Longans must be treated with vapour heat and the temperature must be raised from ambient to 47°C or greater and held for a minimum of 20 minutes.
Cold disinfestation	Prior to arrival in New Zealand, the core temperature of the fruit must be held continuously at one of the following temperature/time combinations:  Fruit pulp temperature held at: 0.99°C or below for 13 days 1.38°C or below for 18 days
Irradiation	Irradiation with a minimum dose of 250 Gy

New Zealand MPI requires specific pre-export phytosanitary measures for *Conogethes punctiferalis* (yellow peach moth). NZ MPI currently approves the use of in-field pest control for Lepidoptera species throughout the production season **or** irradiation at a minimum dose rate of 250 Gy.

NZ MPI requires specific pre-export phytosanitary measures for fruit flies of economic importance. NZ MPI currently approves vapour heat treatment (Appendix 1); **or** cold disinfestation (Appendix 2); **or** irradiation (Appendix 4); these measures are to be carried out in accordance with IHS 152.02 and the official assurance programme.

The application of the irradiation treatment (Appendix 4) 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*. NZ MPI approves the following irradiation doses

- Fruit flies with a minimum dose rate of 150 Gy
- Conogethes punctiferalis with a minimum dose rate of 250 Gy
- Other IHS regulated arthropod pests<sup>1</sup> with a minimum dose rate of 400 Gy

#### Inspection of the consignment

Once the phytosanitary measures have been undertaken for the high risk regulated organisms, the Thailand NPPO is required to sample and visually inspect the consignment according to official procedures for all regulated pests including those listed in Part E, to ensure it conforms with New Zealand's current import requirements. Where Appendix 4 (irradiation) is the phytosanitary measure to be undertaken, inspection will occur pre treatment. Where a regulated arthropod pest is detected on the commodity and Appendix 4 (irradiation) is the intended pre-export phytosanitary measure, appropriate irradiation dosages must be applied by Thailand's NPPO. Alternative approved corrective actions may be conducted (e.g. methyl bromide fumigation), or the fruit shall not be exported to New Zealand.

Where Appendix 2 (cold disinfestation) is the phytosanitary measure to be undertaken, inspection will occur pre or post the phytosanitary measure; inspection will occur after phytosanitary measure has been undertaken for Appendix 1 (vapour heat treatment).

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 IHS, Thailand's NPPO must establish their regulatory status by consulting the MPI "Biosecurity Organisms Register for Imported Commodities" (BORIC), online at <a href="http://www.biosecurity.govt.nz/pests/registers/boric">http://www.biosecurity.govt.nz/pests/registers/boric</a>.

If an an organism is not listed in BORIC, Thailand's NPPO must contact MPI to establish the regulatory status of the organism.

## Part D. Phytosanitary certification

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

<sup>&</sup>lt;sup>1</sup> These regulated pests include those listed on this IHS that are not known to vector diseases.

languages.

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

The longans in this consignment have:

(i) been inspected in accordance with appropriate official procedures and found to be free from any regulated pests, specified by the New Zealand Ministry for Primary Industries.

#### AND

(ii) been treated by irradiation at a minimum absorbed dose of 250 Gy for *Conogethes punctiferalis* 

OR

have been managed using in-field controls for Conogethes punctiferalis,

#### **AND**

(iii) been treated in accordance with Appendix 1; **or** Appendix 2; **or** Appendix 4 of the Official Assurance Programme between New Zealand Ministry for Primary Industries and the Thailand Department of Agriculture.

#### Additional declarations to the phytosanitary certificate

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

The longans in this consignment have:

(i) been inspected in accordance with appropriate official procedures and found to be free from any visually detectable quarantine pests, specified by the NZ MPI.

**NOTE:** Compliance with this additional declaration is not necessary for arthropods if the Thailand NPPO certifies export of this consignment under Appendix 4. The consignment may contain live (but infertile or unable to emerge from pupation) regulated arthropod pests.

#### **AND**

(ii) been treated by irradiation at a minimum absorbed dose of 250 Gy for *Conogethes punctiferalis* 

OR

been managed using in-field controls for Conogethes punctiferalis,

#### **AND**

(iii) been treated in accordance with Appendix 1; **or** Appendix 2; **or** Appendix 4 of the Official Assurance Programme between New Zealand Ministry for Primary Industries and Thailand Department of Agriculture.

**NOTE:** Full details of the vapour heat treatment (temperature and duration) or cold disinfestation (temperature and duration) or irradiation (including doseages) must be included in the "Disinfestation and/or Disinfection Treatment" area of the phytosanitary certificate or as an endorsed attachment to the phytosanitary certificate.

Cold disinfestation completed pre-export must have treatment details such as date, temperature, and duration of the cold disinfestation included in the treatment section of the phytosanitary certificate.

For cold disinfestation completed in-transit; printouts of all temperature sensors or direct electronic downloads are to be made available to MPI at the port of arrival in New Zealand for final clearance of the container.

## Part E. Specified regulated pest list for longan from Thailand

Scientific name	Organism type	Common name	Actions on interception
Capnodium ramosum	Fungus	sooty mould	2
Meliola euphoriae	Fungus	sooty mould	2
Phytophthora capsici	Fungus	buckeye rot	2
Phytophthora palmivora	Fungus	black rot	2
Achaea janata	Insect	castor oil looper	2 or 4
Aleurocanthus spiniferus	Insect	spiny whitefly	2 or 4
Aulacaspis tubercularis	Insect	common mango scale	2 or 4
Bactrocera correcta	Insect	guava fruit fly	3 or 4
Bactrocera dorsalis	Insect	oriental fruit fly	3 or 4
Ceroplastes pseudoceriferus	Insect	horned wax scale	2 or 4
Ceroplastes rubens	Insect	red wax scale	2 or 4
Coccus formicarii	Insect	scale insect	2 or 4
Coccus viridis	Insect	soft green scale	2 or 4
Conogethes punctiferalis	Insect	yellow peach moth	2a or 4
Conopomorpha cramerella	Insect	cocoa pod borer	2 or 4
Conopomorpha litchiella	Insect	fruit borer	2 or 4
Conopomorpha sinensis	Insect	litchi fruit borer	2 or 4
Cornegenapsylla sinica [vector]	Insect	longan psyllid	2
Cryptophlebia ombrodelta	Insect	macadamia nut borer	2 or 4
Deudorix epijarbas	Insect	grey lychee butterfly	2 or 4
Drepanococcus chiton	Insect	wax scale	2 or 4
Eublemma brachygonia	Insect	flower caterpillar	2 or 4
Eudocima fullonia	Insect	fruit-piercing moth	2 or 4
Eudocima hypermnestra	Insect	fruit-piercing moth	2 or 4
Eudocima salaminia	Insect	fruit-piercing moth	2 or 4
Henosepilachna	Insect	28-spot ladybird	2 or 4
vigintioctopunctata			
Homodes bracteigutta	Insect	moth	2 or 4
Hypolycaena erylus himavantus	Insect	leaf-eating caterpillar	2 or 4
Icerya seychellarum	Insect	seychells scale	2 or 4
Kerria lacca	Insect	lac insect	2 or 4
Leptocorisa acuta	Insect	rice bug	2 or 4
Lohita grandis	Insect	-	2 or 4
Nipaecoccus viridis	Insect	nipa mealybug	2 or 4
Oxyodes scrobiculata	Insect	longan leaf eater	2 or 4
Planococcus citri	Insect	citrus mealybug	2 or 4
Porthesia scintillans	Insect	Hairy tussock caterpillar	2 or 4
Pseudaonidia trilobitiformis	Insect	trilobite scale	2 or 4
Pulvinaria psidii	Insect	guava scale	2 or 4
Pyrops candelaria	Insect	litchi lantern bug	2 or 4
Pyrops spinolae	Insect	bug	2 or 4
Statherotis leucaspis	Insect	leafroller	2 or 4

Tessaratoma papillosa [vector]	Insect	litchi stink bug	2
Thalassodes quadraria	Insect	caterpillar	2 or 4
Thysanofiorinia nephelii	Insect	hard scale	2 or 4
longan witches' broom	Virus	LWBD	2

#### **Actions on interception**

2	Treat, resort, reship or destroy.
2a	Treat, reship or destroy. Suspend pathway.
3	Reship or destroy. Suspend pathway.
4	Action dependent on pest interception and irradiation dosage certified
	as the pre-export measure.

Note: The suspension of the pathway could be at the production area, packhouse, state or country level, depending on the significance of the pest interception.

#### Appendix 1: Verification activities on arrival in New Zealand

MPI will inspect documentation on arrival in New Zealand. In addition, MPI may inspect a sample from each lot on arrival in New Zealand to verify requirements of the IHS have been met.

#### Actions undertaken upon interception of irradiated regulated pests

As the required response of regulated arthropod pests that have undergone the irradiation treatment is prevention of adult emergence or adult sterility (not mortality) a possibility exists that live (but unfertile or unable to emerge from pupation) regulated arthropods may be present in a consignment.

In accordance with section 8.3 of ISPM 18 (2011) when mortality is not the required response, the detection of live stages of regulated pests in import inspection should not be considered to represent treatment failure resulting in non-compliance unless evidence exists to indicate that the integrity of the treatment system was inadequate.

MPI reserves the right for an analysis to be conducted on the detected regulated pest to verify treatment efficacy.