Import Health Standard Commodity Sub-class: Fresh Fruit/Vegetables Ginger, (*Zingiber officinale*) from Papua New Guinea

ISSUED

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Endorsement

Import health standards for plants and plant products imported into New Zealand are a requirement under the Biosecurity Act 1993 and are prepared by the Ministry of Agriculture and Forestry.

This standard was endorsed by the Chief Technical Officer, Pre-Clearance, MAF Biosecurity New Zealand on 15 February 2006.

Debbie Pearson Director Pre-Clearance (acting under delegated authority)

Review and amendment

New Zealand MAF import health standards are subject to periodic review and amendment. The next planned review for this standard is 2008.

New Zealand import health standards covering the importation of plants and plant products are updated and republished as necessary with the most recent version published on the MAF web site.

Distribution

Import health standards relating to plants and plant products are distributed by the New Zealand Ministry of Agriculture and Forestry. They are made available for public access on the New Zealand Ministry of Agriculture and Forestry web site: http://www.biosecurity.govt.nz/imports/plants/index.htm

INTRODUCTION

SCOPE

This import health standard describes the requirements to be met to enable biosecurity clearance to be given for fresh ginger (*Zingiber officinale*) imported into New Zealand from Papua New Guinea.

REFERENCES

Biosecurity Act 1993

Requirements for the establishment of pest free areas 1996. ISPM Publication No. 4, FAO, Rome.
Requirements for the establishment of pest free places of production and pest free production sites 1999. ISPM Publication No. 10, FAO, Rome.
Glossary of phytosanitary terms 2002. ISPM Publication No. 5, FAO, Rome.
Risk analysis for quarantine pests including analysis of environmental risks 2003. ISPM Publication No. 11 (Rev. 1), FAO, Rome.
New Revised Text of the International Plant Protection Convention, November 1997. FAO, Rome.
MAF Plants Biosecurity Pest Risk Assessment Standard (26 September 2001).
MAF Plants Biosecurity Standard 152.02: Importation and Clearance of Fresh Fruit and Vegetables into New Zealand (March 2005).

DEFINITIONS ABBREVIATIONS AND ACRONYMS

Biosecurity clearance	A clearance under section 26 of the New Zealand Biosecurity Act 1993 for the entry of goods into New Zealand.
Biosecurity New Zealand	Biosecurity New Zealand is the division of the Ministry of Agriculture and Forestry (MAF) that has the lead role in preventing the importation of unwanted pests and diseases, and for controlling, managing or eradicating them should they arrive.
Certificate	An official document, which attests to the phytosanitary status of any consignment affected by phytosanitary regulations [FAO, 1990].
Commodity	A type of plant, plant product, or other article being moved for trade or other purpose [FAO, 1990; ICPM Amendments, April 2001].

Consignment	A quantity of plants, plant products and/or other articles being moved from one country to another and covered, when required, by a single phytosanitary certificate (a consignment may be composed of one or more commodities or lots) [FAO, 1990; ICPM Amendments, April 2001].
Establishment	Perpetuation, for the foreseeable future, of a pest within an area after entry [FAO, 1990; revised FAO, 1995; IPPC, 1997; formerly established]
High impact pest	High impact pests are regulated pests that if introduced into New Zealand would have a major effect on the production (including access to overseas markets) of plants and plant products and/or the environment.
Import health standard	A document issued under section 22 of the Biosecurity Act 1993 that specifies " the requirements to be met for the effective management of risks associated with the importation of risk goods before those goods can be imported, moved from a biosecurity control area or a transitional facility, or given a biosecurity clearance".
Infestation of a consignment	Presence in a commodity of a living pest of the plant or plant product concerned. Infestation includes infection [CEPM, 1997; revised CEPM 1999].
Inspection	Official visual examination of plants, plant products or other regulated articles to determine if pests are present and/or to confirm compliance with phytosanitary regulations [FAO, 1990; revised FAO, 1995; formerly Inspect].
International Plant Protection Convention	International Plant Protection Convention, as deposited with FAO in Rome in 1951 and as subsequently amended [FAO, 1990].
IPPC	Abbreviation for the International Plant Protection Convention.

International Standard for Phytosanitary Measures	An international standard adopted by the Conference of FAO, the Interim Commission on Phytosanitary Measures or the Commission on Phytosanitary Measures established under the IPPC [CEPM, 1996; revised CEPM, 1999].
Introduction	The entry of a pest resulting in its establishment [FAO, 1990; revised FAO, 1995; IPPC, 1997]
ISPM	Abbreviation for International Standard on Phytosanitary Measures.
Lot	The number of units of a single commodity identifiable by its homogeneity of composition, origin, etc., forming part of a consignment. [FAO, 1990].
MAF	Ministry of Agriculture and Forestry. Acronym for the Ministry of Agriculture and Forestry which is the New Zealand national plant protection organisation.
National Plant Protection Organisation	Official service established by Government to discharge the functions specified by the IPPC. [FAO, 1990; formerly Plant Protection Organization (National)]
NPPO	Abbreviation for National Plant Protection Organisation.
Official	Established, authorized or performed by a National Plant Protection Organization [FAO, 1990].
Pest	Any species, strain or biotype of plant, animal or pathogenic agent injurious to plants or plant products [FAO, 1990; revised FAO, 1995; IPPC, 1997]
	Note: For the purpose of this standard "pest" includes an organism sometimes associated with the pathway, which poses a risk to human or animal or plant life or health (SPS Article 2).
Pest free area	An area in which a specific pest does not occur as demonstrated by scientific evidence and in which, where appropriate, this condition is being officially maintained [FAO, 1995].

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Pest free production site	A defined portion of a place of production in which a specific pest does not occur as demonstrated by scientific evidence and in which, where appropriate, this condition is being officially maintained for a defined period and that is managed as a separate unit in the same way as a pest free place of production [ISPM Pub. No. 10, 1999]		
Phytosanitary certificate	A certificate patterned after the model certificates of the IPPC [FAO 1990].		
Phytosanitary certification	Use of phytosanitary procedures leading to the issu of a phytosanitary certificate [FAO, 1990].		
Phytosanitary measure	Any legislation, regulation or official procedure having the purpose to prevent the introduction and/or spread of pests, or to limit the economic impact of regulated non-quarantine pests [FAO, 1995; revised IPPC, 1997; ISC, 2001]		
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 (is) being officially controlled [FAO, 1990; revised FAO, 1995; IPPC 1997].		
Regulated pest	A quarantine pest or a regulated non-quarantine pest [IPPC, 1997] A pest of potential economic importance to New Zealand and not yet present there, or present but either not widely distributed and being officially controlled, or a regulated non-quarantine pest, or having the potential to vector another regulated pest into New Zealand.		
Treatment	Officially authorized procedure for the killing or removal of pests or rendering pests infertile or for devitalization [FAO, 1990, revised FAO, 1995; ISPMNo. 15, 2002; ISPM No. 18, 2003].		
Viable	Capable of maintaining life, or able to live in a particular environment and able to procreate.		

OUTLINE OF REQUIREMENTS

This import health standard outlines the requirements that must be met prior to shipment, intransit and on arrival in New Zealand for fresh ginger (rhizomes) imported from Papua New Guinea.

This standard is replicated at the following Internet address:

http://www.biosecurity.govt.nz/imports/plants/index.htm

NEW ZEALAND LEGISLATIVE REQUIREMENTS AND INTERNATIONAL OBLIGATIONS

All New Zealand import health standards are based upon risk analyses, which may assess either a commodity or a pest/pathway combination. New Zealand's legislative requirements and international obligations are taken into account when conducting risk analyses and applying the findings in the development of import health standards. The principal document for all New Zealand import health standards relating to plants and plant products is the Biosecurity Act (1993), whilst the international obligations derive principally from the guidelines on risk analysis developed under the auspices of the Interim Commission on Phytosanitary Measures (now the Commission on Phytosanitary Measures) operating within the framework of the International Plant Protection Convention, and the World Trade Organisation Agreement on the Application of Sanitary and Phytosanitary Measures.

IMPORT HEALTH STANDARD: FRESH FRUIT/VEGETABLES – GINGER (*Zingiber officinale*) FROM PAPUA NEW GUINEA.

1 Official contact point (New Zealand National Plant Protection Organisation)

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

Manager, Biosecurity Standards Ministry of Agriculture and Forestry PO Box 2526 Wellington NEW ZEALAND

Fax: 64-4-819 0662 E-mail: PlantImports@maf.govt.nz http://www.biosecurity.govt.nz

2 General conditions for the importation of all plants and plant products

Plants and plant products are not permitted entry into New Zealand unless an import health standard has been issued in accordance with Section 22 of the Biosecurity Act 1993. Should plants or plant products, for which no import health standard exists, be intercepted by New Zealand MAF, the importer will be offered the option of reshipment or destruction of the consignment (at their expense).

The NPPO of the exporting country is requested to inform New Zealand MAF of any change of address.

The NPPO of the exporting country is required to inform New Zealand MAF of any newly recorded pests which may infest/infect any commodity approved for export to New Zealand.

Pursuant to the Hazardous Substances and New Organisms Act 1996, proposals for the deliberate introduction of new organisms (including genetically modified organisms) as defined by the Act should be referred to the Environment Risk Management Authority, PO Box 131, Wellington or e-mail: <u>info@ermanz.govt.nz</u>

[Note: In order to meet the Environmental Risk Management Authority's requirements the scientific name (i.e. genus and species) of the commodity must be included in the phytosanitary certificate.]

3 Explanation of pest categories

New Zealand MAF categorises pests associated with plants and plant products into regulated and non-regulated pests. 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.

Regulated pests are those pests for which actions would be undertaken if they were intercepted/detected. As well as quarantine pests, these include new organisms as defined by the Hazardous Substances and New Organisms Act 1996, 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. Non-regulated pests are those pests for which actions would not be undertaken if they were intercepted/detected.

Pests (including weeds) associated with each commodity will appear on a separate pest list which will be attached to each import health standard as an Appendix.

4 Application of measures

A number of different measures may be applied to pests based on the outcome of pest risk analyses. Required measures may include:

- Surveillance for pest freedom
- Testing prior to export for regulated pests which cannot be readily detected by inspection (e.g. viruses on propagating material)
- Specific pre-shipment pest control activities to be undertaken by the supply country's contracting party
- The application of a pre-shipment treatment
- Inspection of the export consignment
- Issuance of a phytosanitary certificate which attests to the phytosanitary status of a consignment
- Treatment on arrival in New Zealand

5 General conditions for fresh fruit/vegetables for consumption

Only clean, inert/synthetic material may be used for the protection, packaging and shipping of fresh fruit/vegetables.

A completed phytosanitary certificate issued by the exporting country's NPPO must accompany all consignments of fresh fruit and vegetables exported to New Zealand.

New Zealand MAF will inspect all consignments of fresh fruit/vegetables and their associated packaging to verify that New Zealand's phytosanitary requirements have been met. All consignments shall be practically free of soil and other extraneous matter.

Where it has been determined through pest risk assessment that high impact pests are associated with a particular commodity more specific phytosanitary measures must be met. In most circumstances these phytosanitary measures will need to be met prior to arrival of the commodity in New Zealand.

6 Specific conditions for ginger (Commodity Sub-Class: Fresh Fruit/Vegetables) from Papua New Guinea.

6.1 PRE-SHIPMENT REQUIREMENTS

6.1.1 Inspection of the consignment

New Zealand MAF requires that the PNG NPPO sample and visually inspect the consignment according to official procedures for all the regulated pests specified by New Zealand MAF 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 import health standard, the PNG NPPO must establish their regulatory status. This information is available in MAF's "Biosecurity Organisms Register for Imported Commodities" http://www.biosecurity.govt.nz/pests-diseases/registers-lists/boric/

If a pest is not listed in this register, the PNG NPPO must contact MAF (see Section 1) to establish the regulatory status of the pest.

6.1.2 Testing of the consignment

Testing of the consignment prior to export to New Zealand for regulated pests which are not visually detectable (viz. fungi and bacteria) is not generally required for fresh ginger from Papua New Guinea.

6.1.3 Phytosanitary measures for high impact pests

The strength of phytosanitary measures will generally be greater for high impact pests than for other regulated pests, reflecting the greater risks associated with these pests. In most circumstances phytosanitary measures for high impact pests will need to be met prior to arrival of the commodity in New Zealand, and phytosanitary certification will need to attest to this accordingly.

One high impact pest (*Conogethes punctiferalis*) is recorded in association with *Zingiber* sp. however it is considered to be a pest of above ground plant parts rather than the rhizome. Hence, no specific phytosanitary measures for high impact pests are required for fresh ginger from Papua New Guinea.

6.1.4 Documentation

Phytosanitary certificate: Required.

Import permit/Authorisation to import: Exempt under Gazette Notice: No. AG12, 13 July 1995.

6.1.5 Phytosanitary certification

A completed phytosanitary certificate issued by the PNG NPPO must accompany all ginger consignments exported to New Zealand.

Before a phytosanitary certificate is issued, the PNG NPPO must be satisfied that the following activities required by New Zealand MAF have been undertaken.

The ginger has:

been visually inspected in accordance with appropriate official procedures and found to be free from any regulated pests

6.1.6 Additional declarations to the phytosanitary certificate

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

This is to certify that the ginger described herein have been inspected according to appropriate official procedures and are considered to be free from the quarantine pests specified by New Zealand MAF and to conform with the current phytosanitary requirements of New Zealand MAF, including those for regulated non-quarantine pests.

NOTE: This additional declaration is not required if the phytosanitary certificate issued by the PNG NPPO is in accordance with the model phytosanitary certificate annexed to the revised (1997) text of the FAO IPPC.

6.2 TRANSIT REQUIREMENTS

The ginger must be packed and shipped in a manner to prevent possible postinspection/treatment infestation and/or contamination by regulated pests. Where a consignment is split 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 is kept in the original shipping container, a "Re-export Certificate" is not required.

6.3 INSPECTION ON ARRIVAL IN NEW ZEALAND

New Zealand MAF will check the accompanying documentation on arrival to confirm that it is correct and reconciles with the actual consignment.

New Zealand MAF 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, New Zealand MAF will sample and inspect 600 units with an acceptance level of zero infested units (or equivalent), from the (homogeneous) lot.

6.4 **BIOSECURITY/QUARANTINE DIRECTIVE**

The consignment may be directed to a New Zealand MAF-approved facility for further treatment if required.

6.5 TESTING FOR REGULATED PESTS

New Zealand MAF may, on the specific request of the Chief Technical Officer, test the consignment for regulated pests.

6.6 ACTIONS UNDERTAKEN ON THE INTERCEPTION/DETECTION OF PESTS/CONTAMINANTS

If regulated pests, extraneous plant material or trash are intercepted/detected with the commodity, or associated packaging, the following actions will be undertaken as appropriate (depending on the pest identified):

- Re-sorting (specific conditions apply) of the consignment
- Reshipment of the consignment
- Destruction of the consignment
- Treatment for those pests where an efficacious treatment is available
- The suspension of trade on the detection of high impact pests for which specific prearrival phytosanitary measures are required. Suspension of trade will continue until the cause of the non-compliance has been identified and corrective actions have been implemented to the satisfaction of New Zealand MAF

If an organism is intercepted/detected that is not on the pest list (appended to this document), the consignment will be held (or equivalent) until an assessment is undertaken to determine the organism's regulatory status and appropriate measures developed if required.

Consignments that are contaminated with extraneous plant material and/or trash in the 600 unit sample will result in the consignment being held until an assessment has been made in comparison with the risk of importing the part(s) of the plant species concerned.

6.7 **BIOSECURITY CLEARANCE**

If regulated pests are not detected, or are successfully treated following interception/detection biosecurity clearance will be given.

6.8 AUDIT OF OFFSHORE MEASURES

NZ MAF reserves the right to audit all processes that are undertaken offshore, including phytosanitary measures for high impact pests.

6.9 FEEDBACK ON NON-COMPLIANCE

The PNG NPPO will be informed by New Zealand MAF's Chief Technical Officer of the interception (and treatment) of any regulated pests, "unlisted" pests, or non-compliance with measures specified in this import health standard.

7 Contingencies Following Biosecurity Clearance

Should a regulated pest be detected subsequent to biosecurity clearance, New Zealand MAF may implement a management programme (official control programme) in accordance with Part V of the Biosecurity Act 1993 and Part 5 of the Biosecurity Amendment Act 1997.

Appendix 1Pest List Commodity Sub-class: Fresh Fruit/VegetablesZingiber officinale from Papua New Guinea

Scientific name	Organism type	Common name	Quarantine status	Measures to prevent introduction	Actions on interception
Armillaria mellea (anamorph	organien (jpe				
Rhizomorpha subcorticalis)	fungus	armillaria root rot	Regulated	1a & 1b	1 &/or 2
Aspergillus luchuensis	fungus	-	Regulated	1a & 1b	1 &/or 2
Mucor racemosus	fungus	storage rot	Regulated	1a & 1b	1 &/or 2
Pyricularia zingiberis	fungus	black blotch	Regulated	1a & 1b	1 &/or 2
Pythium aphanidermatum	fungus	cottony leak	Regulated	1a & 1b	1 &/or 2
Pythium deliense	fungus	root rot	Regulated	1a & 1b	1 &/or 2
Rosellinia bunodes	fungus	black root rot	Regulated	1a & 1b	1 &/or 2
Scolecobasidium humicola	fungus	-	Regulated	1a & 1b	1 &/or 2
Aspidiella hartii	insect	yam scale	Regulated	1a & 1b	1 &/or 2
Aspidiotus destructor	insect	coconut scale	Regulated	1a & 1b	1 &/or 2
Atherigona orientalis	insect	muscid fly	Regulated	1a & 1b	1 &/or 2
Conogethes punctiferalis	insect	yellow peach moth	Regulated#	1a & 1b	1 &/or 2
Dysmicoccus brevipes	insect	pineapple mealybug	Regulated	1a & 1b	1 &/or 2
Ferrisia virgata	insect	striped mealybug	Regulated	1a & 1b	1 &/or 2
Maruca vitrata	Insect	Bean pod borer	Regulated	1a & 1b	1 &/or 2
Achatina fulica	mollusc	giant African snail	Regulated	1a & 1b	1 &/or 2
Helicotylenchus multicinctus	nematode	spiral nematode	Regulated	1a & 1b	1 &/or 2
Meloidogyne arenaria	nematode	peanut root knot nematode	Regulated	1a & 1b	1 &/or 2
Pratylenchus coffeae	nematode	coffee root lesion nematode corn root lesion	Regulated	1a & 1b	1 &/or 2
Pratylenchus zeae	nematode	nematode	Regulated	1a & 1b	1 &/or 2
Radopholus similis	nematode	burrowing nematode	Regulated	1a & 1b	1 &/or 2
Rotylenchulus reniformis	nematode	reniform nematode	Regulated	1a & 1b	1 &/or 2
Erwinia carotovora	bacterium	bacterial soft rot	Non-regulated		NA
Erwinia carotovora subsp. carotovora	bacterium	bacterial soft rot	Non-regulated		NA
Erwinia chrysanthemi	bacterium	bacterial soft rot	Non-regulated		NA
Pseudomonas aeruginosa	bacterium	yellow soft rot	Non-regulated		NA
Alternaria alternata	fungus	black stalk rot	Non-regulated		NA
Aspergillus candidus	fungus	-	Non-regulated		NA
Aspergillus niger	fungus	black mould	Non-regulated		NA
Athelia rolfsii (anamorph Sclerotium rolfsii)	fungus	Rolf's disease	Non-regulated		NA
Bionectria ochroleuca (anamorph Clonostachys rosea)	fungus	-	Non-regulated		NA
<i>Botryosphaeria rhodina (</i> anamorph <i>Lasiodiplodia theobromae)</i>	fungus	gummosis	Non-regulated		NA
Cladosporium cladosporioides	fungus	cladosporium leaf spot	Non-regulated		NA
Cochliobolus geniculatus	fungus	leaf spot	Non-regulated		NA

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Scientific name	Organism type	Common name	Quarantine status	Measures to prevent introduction	Actions on interception
Epicoccum purpurascens	fungus	black mould	Non-regulated		NA
Fusarium oxysporum	fungus	leaf spot	Non-regulated		NA
<i>Galactomyces geotrichum (</i> anamorph <i>Geotrichum candidum)</i>	fungus	sour rot	Non-regulated		NA
Gibberella baccata (anamorph	Turiyus	Souriot	Non-regulated	•	NA .
Fusarium lateritium)	fungus	fusarium rot	Non-regulated		NA
Gibberella fujikuroi (anamorph	languo		literregulated		
Fusarium moniliforme)	fungus	fusarium rot	Non-regulated		NA
Gibberella intricans (anamorph Fusarium equiseti)	fungus	root and stem dry rot	Non-regulated		NA
Glomerella cingulata (anamorph					
Colletotrichum gloeosporioides)	fungus	anthracnose	Non-regulated		NA
Macrophomina phaseolina	fungus	ashy stem blight	Non-regulated		NA
Memnoniella echinata	fungus	black rot	Non-regulated		NA
Mucor hiemalis	fungus	mucor fruit rot	Non-regulated		NA
<i>Nectria haematococca (</i> anamorph <i>Fusarium solani</i>)	fungus	fusarium fruit rot	Non-regulated		NA
Phytophthora nicotianae	fungus	buckeye rot	Non-regulated		NA
Pythium myriotylum	fungus	rhizome and root rot	Non-regulated		NA
	g	basal stem and root			
Pythium splendens	fungus	rot	Non-regulated		NA
Pythium vexans	fungus	pythium root rot	Non-regulated		NA
<i>Thanatephorus cucumeris (</i> anamorph <i>Rhizoctonia solani)</i> [strains in NZ]	fungus	rhizoctonia rot	Non-regulated		NA
Trichurus spiralis	fungus	grey rot	Non-regulated		NA
Verticillium albo-atrum	fungus	verticillium wilt	Non-regulated		NA
Lasioderma serricorne	insect	cigarette beetle	Non-regulated		NA
Pheidole megacephala	insect	bigheaded ant	Non-regulated		NA
Technomyrmex albipes	insect	white footed ant	Non-regulated		NA
Tribolium castaneum	insect	red flour beetle	Non-regulated		NA
Meloidogyne hapla	nematode	northern root knot nematode	Non-regulated		NA
Meloidogyne incognita	nematode	southern root knot nematode	Non-regulated		NA
Meloidogyne javanica	nematode	Javanese root knot nematode	Non-regulated		NA

Denotes a high impact pest – specific additional measures not required due to low likelihood of association with ginger rhizome.

Measures to prevent entry & establishment	•	No measures as pest non regulated
	1a	Visual inspection of produce and associated packaging
	1b	Consignment must be free from extraneous material – pests are associated with other plant parts (e.g., leaves, stems, flowers) and/or soil
	2a	Undergone appropriate pest control activities
	2b	Pest free area (based on official detection survey)
	3	Agreed offshore fruit fly treatment
	4	Approved generic treatment
Actions on interception	NA	No actions as pest is non regulated
	0	No action due to low risk pathway
	1	Removal of extraneous material – pests are associated with other plant parts (e.g., leaves, stems, flowers) and/or soil
	2	Treat, reship or destroy
	2a	Treat, reship or destroy. Suspend pathway
	3	Reship or destroy. Suspend pathway