Import Health Standard
Commodity Sub-class: Fresh Fruit/Vegetables
Squash and Butternut, (*Cucurbita maxima* and *Cucurbita moschata*) from Tonga

DRAFT

Issued pursuant to Section 22 of the Biosecurity Act 1993
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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 Deputy Chief Technical Officer, Pre-Clearance, Biosecurity New Zealand on ## ## 2006.

Clive Gower-Collins  
Deputy Chief Technical Officer, PreClearance  
(acting under delegated authority)

**Review and amendment**

New Zealand MAF import health standards are subject to periodic review and amendment.

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:  
INTRODUCTION

SCOPE

This import health standard describes the requirements that must be met prior to shipment, in-transit and on arrival to enable biosecurity clearance to be given for fresh squash and butternut (Cucurbita maxima and Cucurbita moschata) imported into New Zealand from Tonga.

This standard is replicated at the following Internet address:


Generic requirements for the importation of all fresh fruit and vegetables into New Zealand are described in MAF Biosecurity Standard 152.02: Importation and Clearance of Fresh Fruit and Vegetables into New Zealand.

DEFINITIONS ABBREVIATIONS AND ACRONYMS

Refer to the International Standards for Phytosanitary Measures (ISPM) No. 5 Glossary of Phytosanitary Terms for generic terms. Specific terms relevant to this import health standard are described below.

- **Bilateral quarantine arrangement**
  An inter-agency technical arrangement between the New Zealand Ministry of Agriculture and Forestry and the counterpart National Plant Protection Organisation which documents New Zealand’s requirements for the control of fruit fly species of economic significance (i.e. those fruit fly species categorised as pests) that are associated with fruit fly host material imported into New Zealand.

- **Biosecurity clearance**
  A clearance under section 26 of the New Zealand Biosecurity Act 1993 for the entry of goods into New Zealand.
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”.

MAF

Ministry of Agriculture and Forestry. Acronym for the Ministry of Agriculture and Forestry which is the New Zealand national plant protection organisation.

NPPO

Abbreviation for National Plant Protection Organisation.

Viable

Capable of maintaining life, or able to live in a particular environment and able to procreate.

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.

IHS Fresh Fruit/Vegetables. Cucurbita maxima and Cucurbita moschata from Tonga
(Biosecurity Act 1993) DRAFT
IMPORT HEALTH STANDARD: FRESH FRUIT/VEGETABLES – SQUASH AND BUTTERNUT (*Cucurbita maxima* and *Cucurbita moschata*) FROM TONGA.

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: info@ermanz.govt.nz

[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 and vegetables to verify that New Zealand’s phytosanitary requirements have been met.

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.
Specific conditions for squash and butternut (Commodity Sub-Class: Fresh Fruit/Vegetables) from Tonga

6.1 PRE-SHIPMENT REQUIREMENTS

6.1.1 Inspection of the consignment

New Zealand MAF requires that the Tonga 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 Tonga 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-diseasesregisters-lists/boric/

If a pest is not listed in this register, the Tonga 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 squash or butternut from Tonga.

6.1.3 Measures for high impact pests

New Zealand MAF requires additional mandatory pre-export measures (treatment or equivalent) for high impact pests. One high impact pest is associated with squash and butternut in Tonga: a whitefly (*Bemisia tabaci*). The high impact fruit fly *Bactrocera kirki* is present in Tonga but squash and butternut are considered as non-hosts to this pest.

New Zealand MAF currently approves non-host status as the mandatory offshore measure for the high impact fruit fly potentially associated with squash and butternut in Tonga.

New Zealand MAF requires that appropriate pest control activities for *Bemisia tabaci* are conducted prior to the commodity arriving in New Zealand.

NOTE: “appropriate pest control activities” is a broad term that is inclusive of a range of phytosanitary measures. Examples of these measures are pest free areas, physical removal (such as washing of fruit), chemical treatments etc.
6.1.4 Documentation

Bilateral quarantine arrangement/Workplan: Required for fruit flies.

Squash and butternut may only be imported into New Zealand from Tonga under the terms of the Bilateral Quarantine Arrangement between New Zealand MAF and the Tonga NPPO.

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 Tonga NPPO must accompany all squash and butternut consignments exported to New Zealand.

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

The [Cucurbita maxima (squash) OR Cucurbita moschata (butternut)] have:

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

AND

(ii) undergone appropriate pest control activities that are effective against:

\[ Bemisia tabaci \]

AND

(iii) undergone an agreed measure that is effective against associated fruit fly species of economic significance in accordance with Appendix 5 of the Bilateral Quarantine Arrangement between New Zealand MAF and the Tonga NPPO.

Note: pest control activities are to comply with relevant health and safety requirements and food standards.
6.1.6 Additional declarations to the phytosanitary certificate

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

"The \textit{Cucurbita maxima (squash) OR Cucurbita moschata (butternut)} in this consignment:

- have been inspected in accordance with appropriate official procedures and found to be free of any visually detectable regulated pests specified by NZ MAF;

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

\textbf{AND}

- have undergone appropriate pest control activities that are effective against \textit{Bemisia tabaci}.

\textbf{AND}

- have been treated in accordance with Appendix 5 of the Bilateral Quarantine Arrangement between NZ MAF and Tonga MAFF.

6.2 TRANSIT REQUIREMENTS

The squash or butternut must be packed and shipped in a manner to prevent possible post-inspection/treatment infestation and/or contamination by regulated pests. Where a consignment is split or has its packaging changed while in another country (or countries) \textit{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, viable, 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 viable, 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 for which specific pre-export pest control activities are required
- The suspension of trade on the detection of pests for which a pest free area has been implemented
- The suspension of trade (economically important fruit fly species), until the cause of the non-compliance is investigated, identified and rectified 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 categorisation (i.e. regulated or non-regulated) and appropriate measures developed and taken 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.

27 August 2006
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 Tonga 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 1

## Pest List Commodity Sub-class: Fresh Fruit/Vegetables

*Cucurbita maxima* and *Cucurbita moschata* from Tonga

<table>
<thead>
<tr>
<th>Scientific name</th>
<th>Organism type</th>
<th>Common name</th>
<th>Quarantine status</th>
<th>Measures to prevent entry</th>
<th>Actions on interception</th>
</tr>
</thead>
<tbody>
<tr>
<td><em>Achatina fulica</em> mol</td>
<td>giant African snail</td>
<td>Regulated</td>
<td>1a &amp; 1b</td>
<td>1 &amp;/or 2</td>
<td></td>
</tr>
<tr>
<td><em>Aphis craccivora</em> [vector] ins</td>
<td>cowpea aphid</td>
<td>Regulated</td>
<td>1a &amp; 1b</td>
<td>1 &amp;/or 2</td>
<td></td>
</tr>
<tr>
<td><em>Aphis fabae</em> ins</td>
<td>bean aphid</td>
<td>Regulated</td>
<td>1a &amp; 1b</td>
<td>1 &amp;/or 2</td>
<td></td>
</tr>
<tr>
<td><em>Aphis gossypii</em> [vector] ins</td>
<td>cotton aphid</td>
<td>Regulated</td>
<td>1a &amp; 1b</td>
<td>1 &amp;/or 2</td>
<td></td>
</tr>
<tr>
<td><em>Aspidiotus destructor</em> ins</td>
<td>coconut scale</td>
<td>Regulated</td>
<td>1a &amp; 1b</td>
<td>1 &amp;/or 2</td>
<td></td>
</tr>
<tr>
<td><em>Aulacophora similis</em> ins</td>
<td>red melon beetle</td>
<td>Regulated</td>
<td>1a &amp; 1b</td>
<td>1 &amp;/or 2</td>
<td></td>
</tr>
<tr>
<td><em>Bemisia tabaci</em> [strains not in New Zealand] ins</td>
<td>sweet potato whitefly</td>
<td>Regulated</td>
<td>1a &amp; 1b &amp; 2a</td>
<td>1 &amp; 2a</td>
<td></td>
</tr>
<tr>
<td><em>Diaphania indica</em> ins</td>
<td>melon moth</td>
<td>Regulated</td>
<td>1a &amp; 1b</td>
<td>1 &amp;/or 2</td>
<td></td>
</tr>
<tr>
<td><em>Dysmicoccus brevipes</em> ins</td>
<td>pineapple mealybug</td>
<td>Regulated</td>
<td>1a &amp; 1b</td>
<td>1 &amp;/or 2</td>
<td></td>
</tr>
<tr>
<td><em>Ferrisia virgata</em> ins</td>
<td>striped mealybug</td>
<td>Regulated</td>
<td>1a &amp; 1b</td>
<td>1 &amp;/or 2</td>
<td></td>
</tr>
<tr>
<td><em>Leptoglossus gonagra</em> ins</td>
<td>squash bug</td>
<td>Regulated</td>
<td>1a &amp; 1b</td>
<td>1 &amp;/or 2</td>
<td></td>
</tr>
<tr>
<td><em>Liriomyza trifolii</em> ins</td>
<td>American serpentine leafminer</td>
<td>Regulated</td>
<td>1a &amp; 1b</td>
<td>1 &amp;/or 2</td>
<td></td>
</tr>
<tr>
<td><em>Maconellicoccus hirsutus</em> ins</td>
<td>pink hibiscus mealybug</td>
<td>Regulated</td>
<td>1a &amp; 1b</td>
<td>1 &amp;/or 2</td>
<td></td>
</tr>
<tr>
<td><em>Myzus persicae</em> [vector] ins</td>
<td>green peach aphid</td>
<td>Regulated</td>
<td>1a &amp; 1b</td>
<td>1 &amp;/or 2</td>
<td></td>
</tr>
<tr>
<td><em>Pinnaspis strachani</em> ins</td>
<td>hibiscus snow scale</td>
<td>Regulated</td>
<td>1a &amp; 1b</td>
<td>1 &amp;/or 2</td>
<td></td>
</tr>
<tr>
<td><em>Planococcus citri</em> ins</td>
<td>citrus mealybug</td>
<td>Regulated</td>
<td>1a &amp; 1b</td>
<td>1 &amp;/or 2</td>
<td></td>
</tr>
<tr>
<td><em>Pseudaulacaspis pentagona</em> ins</td>
<td>white peach scale</td>
<td>Regulated</td>
<td>1a &amp; 1b</td>
<td>1 &amp;/or 2</td>
<td></td>
</tr>
<tr>
<td><em>Tiracola plagiata</em> ins</td>
<td>banana fruit caterpillar</td>
<td>Regulated</td>
<td>1a &amp; 1b</td>
<td>1 &amp;/or 2</td>
<td></td>
</tr>
<tr>
<td><em>Athelia rolfsii</em> (anamorph <em>Sclerotium rolfsii</em>) fun</td>
<td>Rolf's disease</td>
<td>Non regulated</td>
<td>.</td>
<td>NA</td>
<td></td>
</tr>
<tr>
<td><em>Brachycaudus helichrysi</em> ins</td>
<td>leafcurl plum aphid</td>
<td>Non regulated</td>
<td>.</td>
<td>NA</td>
<td></td>
</tr>
<tr>
<td><em>Chrysodeixis eriosoma</em> ins</td>
<td>green garden looper</td>
<td>Non regulated</td>
<td>.</td>
<td>NA</td>
<td></td>
</tr>
<tr>
<td><em>Didymella bryoniae</em> (anamorph <em>Phoma cucurbitacearum</em>) fun</td>
<td>cucumber stem rot</td>
<td>Non regulated</td>
<td>.</td>
<td>NA</td>
<td></td>
</tr>
<tr>
<td><em>Helicoverpa armigera</em> ins</td>
<td>tomato fruitworm</td>
<td>Non regulated</td>
<td>.</td>
<td>NA</td>
<td></td>
</tr>
<tr>
<td><em>Nezara viridula</em> ins</td>
<td>green vegetable bug</td>
<td>Non regulated</td>
<td>.</td>
<td>NA</td>
<td></td>
</tr>
<tr>
<td><em>Phoma exigua</em> fun</td>
<td>phoma rot</td>
<td>Non regulated</td>
<td>.</td>
<td>NA</td>
<td></td>
</tr>
<tr>
<td>Scientific name</td>
<td>Organism type</td>
<td>Common name</td>
<td>Quarantine status</td>
<td>Measures to prevent entry</td>
<td>Actions on interception</td>
</tr>
<tr>
<td>-------------------------</td>
<td>---------------</td>
<td>--------------</td>
<td>-------------------</td>
<td>---------------------------</td>
<td>-------------------------</td>
</tr>
<tr>
<td><em>Phoma exigua var. exigua</em></td>
<td>fun</td>
<td>phoma rot</td>
<td>Non regulated</td>
<td></td>
<td>NA</td>
</tr>
<tr>
<td><em>Polyphagotarsonemus latus</em></td>
<td>mit</td>
<td>broad mite</td>
<td>Non regulated</td>
<td></td>
<td>NA</td>
</tr>
<tr>
<td><em>Pseudoperonospora cubensis</em></td>
<td>fun</td>
<td>downy mildew</td>
<td>Non regulated</td>
<td></td>
<td>NA</td>
</tr>
<tr>
<td><em>Saissetia coffeae</em></td>
<td>ins</td>
<td>hemispherical scale</td>
<td>Non regulated</td>
<td></td>
<td>NA</td>
</tr>
<tr>
<td><em>Sphaerotheca fuliginea</em></td>
<td>fun</td>
<td>powdery mildew</td>
<td>Non regulated</td>
<td></td>
<td>NA</td>
</tr>
<tr>
<td><em>Spodoptera litura</em></td>
<td>ins</td>
<td>cluster caterpillar</td>
<td>Non regulated</td>
<td></td>
<td>NA</td>
</tr>
<tr>
<td><em>Thrips tabaci</em></td>
<td>ins</td>
<td>onion thrips</td>
<td>Non regulated</td>
<td></td>
<td>NA</td>
</tr>
</tbody>
</table>

# identifies a regulated high impact pest for which additional offshore measures are necessary

Measures to prevent entry & establishment

1a Visual inspection of produce and associated packaging
1b Consignment must be free from extraneous plant material - pests are associated with other plant parts (e.g., leaves, stems, flowers)
2a Undergone appropriate pest control activities
2b Pest free area (based on official detection survey)
3 Agreed offshore fruit fly treatment and bilateral quarantine agreement required
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 trash - pests are associated with other plant parts (e.g., leaves, stems, flowers)
2 Treat, reship or destroy
2a Treat, reship or destroy. Suspend pathway
3 Reship or destroy. Suspend pathway