

Standard Management Rule 07: Peanuts and Pistachio Nuts

From the 1st July 2009 NZFSA replaced this SMR with a standardised format for all Imported Food Requirements.

For the current version refer to the Imported Food Requirement for peanuts and pistachio nuts.

Recent Updates:

| Date | Location | Information |
|------------------|-------------------------------|--|
| 1 July 2009 | All | Made obsolete refer to the Imported Food Requirement for peanuts and pistachio nuts. |
| 20 July 2007 | Section 3.5 | Sampling and inspection costs have been updated. |
| 25 November 2005 | Section 2.1 | Chinese certification accepted from CIQ (formerly CCIB) |
| 06 April 2005 | Section 3.2.5 | Clarification of number of samples to be taken: if the amount imported under one lot code is less than 60 kg take one sample |

Background Information:

SUMMARY OF HAZARD:

Peanuts and pistachio nuts are prescribed (high risk) food because they have been found to contain mycotoxins (including aflatoxins), mould and insects.

Mycotoxins are toxic substances produced by moulds growing on nuts in the field or in storage. Many moulds are capable of growing on nuts, however, only a few mould species produce mycotoxins. Several mycotoxins, including aflatoxin, have been linked to increased incidence of

cancer in humans. Aflatoxins are produced by a specific fungus (*Aspergillus flavus*) and are a known to cause cancer in animals.

Contamination of peanuts and pistachio nuts by mycotoxins, mould and insects can occur prior to harvesting of the crop, during harvest time, during post-harvest handling and in storage. Good manufacturing practices can greatly reduce the likelihood of *Aspergillus flavus*, and the resultant levels of aflatoxin. This includes:

- management of the plants i.e. irrigation of the plants
- sorting of the peanuts using sophisticated imaging equipment
- management of the moisture content during the drying process
- eliminate potential for water damage in containers/packaging

However, aflatoxins are considered unavoidable contaminants of food and feed, even where good manufacturing practices have been carried out.

GENERAL INFORMATION ON AGENCY ROLES:

The following descriptions have been included to clarify the roles of the New Zealand Food Safety Authority and Ministry of Agriculture and Forestry in imported food.

New Zealand Food Safety Authority (NZFSA):

NZFSA was established on 1 July 2002 as a semi-autonomous body attached to the Ministry of Agriculture and Forestry (MAF). The Authority has responsibility for the food functions previously managed by MAF and the Ministry of Health. Establishment of the NZFSA provides a more integrated approach to food safety in New Zealand. NZFSA is the controlling authority for imports of food and sets policies, criteria and procedures to monitor the safety of imported food for human consumption and for food containers (see www.nzfsa.govt.nz).

- **Auckland Central Clearing House (ACCH):**

ACCH is part of the Auckland Regional Public Health Service, and is contracted by the NZFSA to carry out day to day operational procedures. The ACCH provides the initial point of contact for information to importers and customs brokers throughout New Zealand. It facilitates the inspection and clearance services of identified imported products.

- **Public Health Units (PHU):**

Food and Health Protection Officers (Food/HPOs) employed by the various public health services are responsible for the inspection and sampling of high-risk imported foods under the coordination of the ACCH.

Biosecurity New Zealand:

Biosecurity NZ is the lead agency in New Zealand's biosecurity system. 'Biosecurity' is the protection of New Zealand's economy, environment and people's health from pests and diseases. It includes trying to prevent new pests and diseases arriving. Established in November 2004 (replacing MAF Biosecurity), it has been tasked with a 'whole of system' leadership role, encompassing economic, environmental, social and cultural outcomes. Importers should contact Biosecurity NZ directly to check their requirements <http://www.biosecurity.govt.nz/>.

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Import Criteria Applying to Peanuts and Pistachio Nuts

1.0 Products targeted:

Prescribed foods are targeted at the border using the New Zealand Customs tariff code system. Products classified with the following tariff codes are captured under this rule:

| Tariff codes targeted for Peanuts & Pistachio Nuts | |
|--|---|
| <i>0802 Other nuts, fresh or dried, whether or not shelled or peeled</i> | |
| 0802.50.00.01E | Pistachios In Shell |
| 0802.50.00.09L | Pistachios Other Than In Shell |
| <i>0812 Fruits and nuts (provisionally preserved) but unsuitable in that state for human consumption</i> | |
| 0812.90.00.20C | Nuts Provisionally Preserved But Unsuitable In That State For Immediate Consumption |
| <i>1202 Groundnuts, not roasted or otherwise cooked, whether or not shelled or broken</i> | |
| 1202.10.00.00K | Ground-Nut In Shell |
| 1202.20.00.00C | Ground-Nut Shelled |
| <i>2008 Nuts, ground-nuts and other seeds, whether or not mixed together:</i> | |
| 2008.11.00.21J | Mixtures Of Roasted Nuts |
| 2008.11.00.31F | Other Roasted Ground Nuts |
| 2008.11.00.39A | Ground Nuts Not Roasted |
| 2008.19.09.29H | Other Nuts Ground-Nuts And Other Seeds Whether Or Not Mixed Together |
| 2008.19.09.39E | Other Nuts Ground-Nuts And Seeds Whether Or Not Mixed Not Roasted |

INCLUDED UNDER THIS RULE:

- Mixed nuts containing more than 10% peanuts are monitored under this rule.
- Other peanut related products that primarily consist of peanuts (peanut cake, peanut bars, peanut confectionary, peanuts coated with flavourings) should be tested under this rule. The tariff codes make it difficult to target these products.

INADVERTENT CAPTURES:

As the tariff classification system is not designed specifically around the imported food regime, some food products may be inadvertently captured by the targeted tariff codes above. If this is the case, products will not be subject to the sampling and testing protocol outlined in this rule.

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2.0 Clearance options:

The following 3 options are available to clear consignments captured under this rule:

2.1 Acceptance of recognised certification:

Where the NZFSA (or Ministry of Health prior to July 2002) has negotiated certification arrangements with other governments or specific manufacturers then approved certification may be accepted for a prescribed food. Importers should check specific certification requirements with their local PHU prior to importing a prescribed product.

For peanuts and pistachio nuts approved certification may be accepted from:

- China - CIQ (formerly Chinese Commodity Inspection Bureau: CCIB)
- Australian Quarantine Inspection Service (AQIS)
- Peanut Company of Australia
- South Africa Oilseeds Board
- United States Department of Agriculture or State Department of Food and Agriculture (**NOTE:** this is for **PEANUTS ONLY** – the certification option is not available for pistachio nuts)

In all cases certification is required with **each consignment**.

Consignments imported under certification are required to be tested at intervals. The standard testing rate used to verify certification which applies to most prescribed foods is 1 in every 20 where consignments are more frequent than 20 in a six month period. Where consignments are less than 20 in a six month period, they are tested every six months. The sampling and testing protocol applied is specified below under point 3.

2.2 Multiple Release Permits (MRPs):

MRPs are issued on a case by case basis to importers with the technical skill and experience to manage a quality imports system. They are specific to importer, broker, product and supplier and are issued for a defined time period. MRPs enable importers to bypass the normal import clearance procedure for prescribed foods saving time and clearance costs. Where testing is required, the sampling and testing protocol applied is specified below, unless a different protocol is a specific condition of the MRP.

MRPs are issued for imported food products that are:

- Inadvertently captured by the tariff codes monitored by the NZFSA.
- From particular suppliers under an arrangement agreed to by the importer and NZFSA. This includes the importer maintaining an agreed imported food surveillance programme for the products covered by the MRP.

MRPs have been issued for product covered by this Rule. Importers wishing to apply for a MRP for this product should contact the NZFSA to discuss their situation prior to completing a MRP application form.

2.3 Clearance sampling and testing on arrival in New Zealand:

In the absence of approved certification or a MRP, peanuts and pistachio nuts are sampled and tested in New Zealand according to the sampling and testing protocol in the table below.

3.0 Sampling and testing protocol:

3.1 Inspection and toxicological criteria:

In order to ascertain if a consignment is safe the consignment is inspected and samples taken for laboratory testing. The following criteria are used when deciding if a consignment captured by this rule is safe to be released:

- No visual evidence of mould or insect infestation (if mould or insect infestation is detected then the lot should be rejected and samples should not be taken for testing).
- Levels of aflatoxins not exceeding 0.015 ppm

3.2 Sampling requirements:

3.2.1 When to sample consignments:

ACCH identifies which consignments are to be sampled and tested. Sampling frequencies depend on whether certification or a MRP are used as clearance options:

In the absence of certification or a MRP:

The frequency of sampling is based on the sampling and testing history developed by each importer for a specific product. A “specific product” means a product that is exactly the same i.e. the same size bottle/packet, variety, brand, and is manufactured by the same company. As a compliant history is developed, the frequency of sampling and inspection is reduced for the importer for that specific product. This reduction is governed by the “switching rule”, which follows the steps below:

- Sampling initially starts out at the *tightened* level (where 100% or every consignment is sampled and tested) until 3 compliant consignments have been cleared, when:
- Sampling is then lowered to the *normal* level (where 20% or 1 consignment in 5 is sampled and tested), until another 20 compliant consignments have been cleared (or 100 consignments imported since day 1), when:
- Sampling is then lowered to the *reduced* level (where 10% or one consignment in 10 is sampled and tested).

The frequency of sampling returns back to the *tightened* when a product is tested and found not to comply.

NOTE: Seasonal variations (which contribute to the level of contamination of peanuts and pistachio nuts) and the current inspection/testing failure rate which is approximately 1 in 10 consignments, mean that the *normal* level for this rule is more frequent than the standard rate (of 1 in 5) and is set at a rate of 1 in 3 consignments.

ACCH selects the frequency of sampling that is to apply to an imported product at any particular time using the *Switching Rule*. However, application of the *Switching Rule* may also be affected by the difficulty of managing the hazards applying to particular food product. Importers can contact their local PHU to discuss application of switching rules and, where they have a compliant history that meets the requirements above, can request a reduction in testing. Importers can also present a case if they wish to deviate from the switching rule applied. This is considered by the NZFSA on a case by case basis. Special approval may be given for specific products to be advanced to a further reduced level of testing (1 consignment in 20).

Certification:

Where testing is required to verify certification the sampling frequency does not follow the Switching Rule but is 1 in 20 consignments – see point 1 in ‘Clearance Options’.

MRPs:

Where sampling is a requirement of a MRP, the MRP will specify the sampling frequency.

3.2.2 Who samples consignments:

Sampling must be carried out by PHUs, who will arrange for one of their Food/HPOs to inspect and sample any consignment identified as requiring testing.

3.2.3 Products to be sampled:

Samples should be taken for each type of product. For example, for peanuts – blanched, raw, roasted, flavoured/coated, mixed nuts, etc.

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3.2.4 Number of lots to be sampled per consignment:

Food/HPOs select the lot(s) to be inspected and sampled. Where a consignment contains more than one lot, the number of lots to be sampled is calculated using the table below. This table is standard for all prescribed foods.

| Number of lot codes in consignment | Number of lots to sample | Reject lots if n samples fail |
|------------------------------------|--------------------------|---------------------------------|
| 1 | 1 | $n = 1$ |
| 2 -8 | 2 | $n = 1$ |
| 9 -15 | 3 | $n = 1$ |
| 16 – 25 | 5 | $n = 1$ |
| > 26 | 8 | $n = 1$ |

3.2.5 Number of samples to take per lot:

Each product has its own sample requirements. For peanuts and pistachio nuts the number of samples to take per lot should be calculated using the table below.

NOTE: If mould or insects are detected by Food/HPOs while carrying out a visual inspection, the lot is rejected and samples do not need not be taken and submitted for testing.

| Number of kilograms per batch | Number of units to be inspected and sampled |
|-------------------------------|---|
| <60 | 1 |
| 60 – 240 | 2 |
| 241 – 450 | 3 |
| 451 – 750 | 5 |
| 751 – 1500 | 8 |
| 1501 – 2700 | 10 |
| 2701 – 4500 | 12 |
| 4501 – 8400 | 16 |
| greater than 8400 | 22 |

Samples from within the same lot shall be identified by the same sampling officer sample number, with each of these samples being identified by a letter (A - Z) e.g. where an officer has the sample number 751, the first sample from within the same lot will be identified as 751A, the second 751B, and so on.

3.2.6 Sample weight:

- Each sample must weigh a minimum of 500g.
- Individual units or packets should be sampled if these are available.

3.3 Inspection requirements:

Food/HPOs carry out visual inspections of peanuts and pistachio nuts. If mould is detected by Food/HPOs while carrying out a visual inspection, the lot is rejected and samples do not need not be taken and submitted for testing as described below.

3.4 Testing requirements:

3.4.1 NZFSA approved laboratories:

Samples of imported food can only be tested by laboratories approved by the NZFSA. At present only laboratories that are accredited by International Accreditation New Zealand (IANZ) to do the relevant test are approved by the NZFSA. NZFSA is currently updating its list of approved laboratories.

3.4.2 Methodology to be applied by laboratories:

The preferred method of AFLATOXIN ANALYSIS is described in the *Official Methods of Analysis of AOAC International 16th Edition*, most up to date edition.

3.4.3 Compositing samples:

- Each sample should be entirely ground before compositing.
- Results from composite samples are acceptable if the analysis methodology is sufficiently sensitive to demonstrate compliance for each individual sample.

3.5 Sampling and testing costs:

All sampling and testing is at the importers expense. Permit and sampling costs are listed below, are in New Zealand dollars and include GST:

- Permit application assessment : \$48 per line assessment + \$96/hour
- Sampling and inspection: \$96 per hour payable in 15-minute units

For laboratory costs, contact NZFSA approved laboratories.

3.6 Reject criteria:

PHUs will apply the following criteria to lots after inspection and sampling:

REJECT lots that show visual evidence of an insect infestation

REJECT lots that show visual evidence of mould

REJECT lots when any one sample taken from that lot shows the level of aflatoxin exceeds 0.015 ppm.

- When lots fail the import criteria, those lots and any untested lots in the same consignment are rejected.
- Lots that fail the import criteria are not re-tested.
- Importers have the option of having any untested lots sampled and tested, and if any of these lots pass they can be cleared. Any untested lots in the same consignment of a reject lot must be sampled for clearance at the rate detailed in *Inspection Requirements and Testing Requirements* above

3.7 Special conditions that may apply:

In unique or out of the ordinary situations, the NZFSA reserves the right to either stop trade or replace the above sampling regime with a special elevated programme of testing in order to regain confidence in a product.

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