PROCEDURES FOR

EXPORT OF

PEANUTS AND

PEANUT PRODUCTS



Agricultural and Processed Food Products Export Development Authority

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Background

Maximum Levels (MLs) of aflatoxins, other safety & quality requirements and quarantine concerns are yet to harmonize amongst countries. It is, therefore, essential to monitor these requirements for exports of peanuts and peanut products. The Government of India, Ministry of Commerce & Industry, Department of Commerce vide Notification No. 28 (RE-2012)/2009-2014 dated 3rd January, 2013 issued under the Section 5 of the Foreign Trade (Development & Regulation) Act, 1992 as published in the Gazette of India conferred powers to APEDA permitting export of groundnuts (peanuts) subject to registration with APEDA along with controlled aflatoxin level certificate issued by APEDA recognized laboratories. Subsequently, Ministry of Commerce & Industries advised APEDA vide letter No. 11/1/2013-EP (Agri.IV) dated 4.3.2015 to issue necessary orders for export of groundnuts (peanuts). To ensure compliances with the above, with immediate effect, the following procedures shall be followed for exports of peanuts and peanut products:

1.	Objectives	1.1	To ensure compliance with MLs of aflatoxins, quarantine concerns and quality parameters of importing countries pertaining to Peanuts and Peanut Products, hereinafter called (PPP) in this document.
		1.2	To establish a system of appropriate marking/labeling in each bag/package/lot/pallet of PPP for exports.
		1.3	To ensure that PPP exported from India do not tested for MLs of aflatoxin, quarantine concerns and quality parameters in excess by the importing countries.
		1.4	To facilitate web-based electronic monitoring through Peanut.Net with the objective of tracing and tracking, product recall, single window clearance and reducing paper work.
2.	Scope	2.1	All processors and exporters of PPP including merchant-exporters intending to export, PPP registered processing units, integrated peanut processing units, peanut shelling units, peanut grading units, peanut shelling-cum-grading units, peanuts storage warehouses, authorized laboratories, National Referral Laboratory, health & quality certificate issuing organizations, PSC issuing organizations, NPPO, fumigation certificate issuing agencies shall get covered under this document.
		2.2	This procedure shall apply to export of PPP to all countries. The exporters shall comply with permissible MLs as well any other food safety, quality and quarantine concerns of importing countries.
		2.3	For issue of Health Certificate for exports of PPP to EU in accordance with Commission Regulation (EU) No. 884/2014 dated 13.08.2014, format of Health Certificate is given in Appendix-A . The EU countries includes, Austria, Belgium, Bulgaria, Croatia,

	Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden, United Kingdom as well as countries following EU food safety norms as included in this Procedure.		
2.4	For exports of PPP to Malaysia, format of Health Certificate is given in Appendix-B .		
2.5	For exports of PPP to Russian Federation, format of Certificate of Quality is given in Appendix-C.		
2.6	The following categories of peanut and peanut products for exports shall be covered under this procedure with a maximum levels of aflatoxins in µg/kg related to a product with maximum moisture content of 7%:		
	(i) Groundnuts (peanuts) and processed products thereof, intended for direct human consumption or as an ingredient in foodstuffs, with the exception of crude vegetable oils destined for refining and refined vegetable oils for exports to EU;		
	(ii) Groundnuts (peanuts) to be subjected to sorting or other physical treatment or further processing, before human consumption or use as an ingredient in foodstuffs with the exception of groundnuts (peanuts) for crushing for refined vegetable oil production for exports to EU;		
	(iii) Groundnuts (peanuts) as bird feed for exports to EU;		
	(iv) Groundnuts (peanuts) for exports to Russian Federation;		
	(v) Groundnuts (peanuts) for exports to Japan and Korea;		
	(vi) Groundnuts (peanuts) for exports to Malaysia, Indonesia and countries following Codex MLs;		
	(vii) Groundnuts (peanuts) for exports to Thailand		
	(viii) Groundnuts (peanuts) and groundnut products for exports to any other country		
2.7	The exporters shall label/mark and declare intended use of the products as per above categories.		

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	2.8	Following Tariff items HS codes and description pertaining to PPP shall cover under the scope of this document:		
		Tariff Item Item description HS Code		
		1202 30 10 Groundnuts HPS of seed quality not roasted or cooked		
		1202 30 90 Other Groundnuts of seed quality not roasted or cooked		
		1202 41 10 Groundnuts in-shell HPS not roasted or cooked		
		1202 41 90 Other Groundnuts in-shell not roasted or cooked		
		1202 42 10 Shelled Groundnuts kernels, HPS not roasted or cooked		
		1202 42 20 Shelled Groundnuts kernels, not roasted or cooked		
		1202 42 90 Shelled Groundnuts, not roasted or cooked		
		20081100 Groundnuts, otherwise prepared or preserved, whether or not mixed together and whether or not containing added sugar or other sweetening matter or spirit, not elsewhere specified or included. (This includes Peanut Butter)		
Definitions	2.9	Peanut processing units: the unit involved in producing roasted/blanched peanuts or peanut based processed products.		
	2.10	Integrated peanut processing units: the units having facilities of Peanut grading or shelling-cum-grading and processing facilities.		
	2.11	Peanut shelling-cum-grading units: the unit having peanut shelling and grading facility.		
	2.12	Peanut grading units: the units having only peanut grading facility. Such unit will have to source shelled peanuts from APEDA registered shelling facilities for grading.		
	2.13	Peanut shelling units: the unit having only shelling facility. Such unit can only supply their products to APEDA registered grading facilities.		
	2.14	Peanuts warehouses: the units having storage facility for peanut consignments to be used by the exporters for storage of PPP consignment before its export.		
	2.15	Authorized laboratories: the laboratories authorized by APEDA for drawls of samples & analysis of aflatoxin in PPP.		
	2.16	The units approved for EU have to source their raw material from the units approved for EU only.		

3.	Criteria for registration of PPP processing units, integrated processing units, shelling units, grading units, shelling-cumgrading units, storage warehouse	3.1	All PPP processing units, integrated peanut processing units, peanut shelling units, peanut grading units, peanut shelling-cum-grading units, peanuts storage warehouse including those intending to export these products in any form for direct human consumption or as an ingredient in foodstuffs or further processing intending to export directly or supply to exporter shall submit their applications to APEDA. These applications shall be submitted online through Unit Registration system on APEDA website. All exporters of PPP processing units, integrated peanut processing units, peanut shelling units, peanut grading units, peanut shelling-cum-grading units, peanuts storage warehouse shall be registered by APEDA as per the laid down criteria. All categories of PPP shall be allowed for exports only from APEDA registered facilities.
		3.3	All PPP processing units, integrated peanut processing units, peanut shelling units, peanut grading units, peanut shelling-cum-grading units, peanuts storage warehouse including those intending to export PPP in any form for direct human consumption or as an ingredient in foodstuffs or further processing intending to export directly or supply to exporter shall ensure that all peanut farmers are made aware of the recommended practices based on Good Agriculture Practices as described in Code of Practice for prevention & reduction of aflatoxin contamination in peanuts CAC/RCP 55-2004.
		3.4	All PPP processing units, integrated peanut processing units, peanut shelling units, peanut grading units, peanut shelling-cum-grading units, peanuts godowns/storage including those intending to export PPP in any form for direct human consumption or as an ingredient in foodstuffs or further processing intending to export directly or supply to exporter shall ensure that the official controls at peanut processing units, integrated processing units, shelling units, grading units, shelling-cum-grading units, storage warehouse include assessment of factors which influence mould growth and aflatoxin production in peanuts and peanut products as described in the Code of Practice for the prevention & reduction of aflatoxin contamination in peanuts CAC/RCP 55-2004.
		3.5	All PPP processing units, integrated peanut processing units, peanut shelling units, peanut grading units, peanut shelling-cum-grading units are advised that they should avoid spray of water before shelling on peanut pods meant for exports and such consignments should be stored separately. The units are also advised to maintain logbook and documentation in this regard.
		3.6	For exports of PPP consignments to other than EU countries, the exporters would be allowed to purchase from the non registered shellers and open market subject to processing the PPP mandatorily

			in APEDA registered grading, shelling-cum-grading and processing units.	
4.	Sampling analysis and stuffing of PPP consignments	4.1	All exporters, registered PPP processing units, integrated peanut processing units, peanut shelling units, peanut grading units and peanut shelling-cum-grading units shall login to Peanut.Net system and create PPP consignment online. Thereafter, forward application online to authorized laboratory for drawl of sample from the consignment for aflatoxin analysis and issue of analysis report, as per procedure.	
		4.2	Sampling of PPP for all categories shall be carried out only at the PPP registered storage warehouse of the PPP processing units, integrated peanut processing units, peanut shelling units, peanut grading units and peanut shelling-cum-grading units. The PPP storage warehouse shall ensure that the PPP stored and presented for sampling are produced in APEDA registered PPP processing units, integrated peanut processing units, peanut grading units and peanut shelling-cum-grading units. All the PPP storage warehouse units where sampling is carried out shall be registered with APEDA as per the laid down procedures. The unit must maintain records of samplers visit and drawl of samples for aflatoxin analysis for each consignment.	
		4.3	All authorized laboratories shall draw samples for analysis of PPP as per the method of sampling given in EU regulations for exports to EU and Codex guidelines for exports to countries other than EU. List of authorized laboratories is updated in Peanut.Net Method of sampling applicable to each category of PPP as detailed in para 2.6 and described below is given in Annexure-I :	
			(i) For consignments of PPP meant for exports to the EU for category (i) and (ii), Commission Regulation (EC) No. 178/2010 of 2 March 2010 amending Commission Regulation (EC) No. 401/2006 of 23 February 2006.	
			(ii) For consignments of PPP for feedstuffs meant for export to EU for category (iii), Commission Regulation 691/2013 of 19 July 2013 amending Regulation (EC) No. 152/2009 of 27 January 2009.	
			(iii) For consignments of PPP meant for exports to the countries other than the above for category (iv) to (viii) the method of sampling and analysis would be based on Codex guidelines. In case of a specific compliance requirement of the importing country regarding method of sampling and analysis to be followed by the authorized laboratories, exporters shall obtain and pass on the method to APEDA for review and validation by National Referral Laboratory (NRL).	

4.4	All authorized laboratories shall analyze samples of PPP for the MLs of aflatoxin as given in Annexure-II . In case specific MLs to be complied with for exports to an importing country, the exporter shall intimate the same MLs to APEDA for the purpose of advising to the authorized laboratories.
4.5	In case the consignment intended for export in category (iii), each bag/package must be printed with the words, "Peanuts for bird feed only". The printing ink to be used shall be food grade.
4.6	After drawl of the samples, the sampler of the authorized laboratory shall label each bag/package/lot/pallet of PPP in the lot with the help of one time use plastic wire locking seal or an appropriate numbered sticker for all categories. In case of bulk-in-container, for the category (iii) to (viii) the container shall also be sealed. The PPP meant for exports for category (i), (ii) shall not be in bulk containers.
4.7	After sampling, the bags/lot/pallet shall not be shifted or relocated by the processing unit/exporter to another location without the prior consent of the concerned laboratory. Shifting/relocation should be done in the presence of the laboratory and resealing should be done.
4.8	The authorized laboratories shall test PPP for determination of MLs of aflatoxins as per the method of analysis prescribed by NRL for all the categories ensuring that the precision and recovery in the method used meets the requirements of the importing country.
4.9	The authorized laboratories shall issue certificate of analysis to the exporter/processing unit as per the format given in Annexure-III within 96 hrs from drawl of sample. The laboratory shall declare that the sampling has been done in the APEDA registered PPP processing unit, integrated peanut processing unit, peanut shelling unit, peanut grading unit, peanut shelling-cum-grading unit, peanuts godowns/storage.
4.10	Exporters/processing units shall not export PPP, samples of which do not conform to laboratory test.
4.11	In case, the samples exceed the aflatoxin levels, the authorized laboratories shall immediately (within 24 hours of completion of analysis) bring the matter to the notice of exporter/processor, NRL and APEDA along with a copy of the test report giving details of the exporters and the aflatoxin levels, chromatograms to the NRL.
4.12	All exporters/registered PPP units shall apply to APEDA for issue of Certificate of Export (COE) online through Peanut.Net along with processing fee of Rs. 25 per MT in favour of APEDA.

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		4.13	The Certificate of Export for export of PPP shall be issued by APEDA only if the Certificate of Analysis indicates that the aflatoxin level in the sample is within the prescribed limits.
		4.14	In case of shipments to EU, container stuffing/loading would also be carried out. To prevent sweating and condensation, exporters shall use suitable moisture observer in the container for all shipments An advice to shipping line shall be given by exporter stating that the container flaps should be kept open and container should be stored in a ventilated place in the vessel and use of kraft paper on all sides and top of the container.
		4.15	The loading/stuffing of PPP in the container for shipment purpose shall be done under the supervision of the authorized laboratory at the same premises where the sampling was carried out. In case of change of place for stuffing, the authorized laboratory shall supervise the sampled consignment during the export chain.
		4.16	With regard to failed samples, the processor/exporter shall not export consignment and evacuate produce from the establishment.
		4.17	In case the exporter wishes to ship PPP consignments in vacuum packing, sampling shall be carried from primary packing such as gunny/PP bags as per Annexure-III. After clearance from the laboratory, the consignment will be vacuum packed under the supervision of authorized laboratory.
5.	Recognition and responsibility of Authorized Laboratories	5.1	All the authorized laboratories shall be ISO/IEC-17025 accredited alongwith scope of aflatoxins analysis in peanuts and peanut products.
		5.2	The authorized laboratories shall validate method of sampling and analysis of PPP to comply with the importing country's requirements.
		5.3	While issuing certificate of analysis (test reports), the authorized laboratories shall not add any additional statement/disclaimer with regards to sampling, analysis and stuffing of PPP.
6.	Responsibilities of National Referral Laboratory (NRL)	6.1	National Research Center for Grapes (NRCG) Pune would be National Referral Laboratory (NRL). The NRL shall monitor work of authorized laboratories by conducting surveillance audit periodically to ascertain that they are following the criteria laid down in this document.
		6.2	The NRL shall audit minimum 10% of the analysis documents of the samples tested by the authorized laboratories and maintain a record. On the basis of the audit, the NRL shall prepare a plan of action for the next year.

		6.3	The NRL shall, at regular intervals during the season, obtain 2% of the total prepared samples from the authorized laboratories for the purpose of verification of analysis.
		6.4	NRL shall submit analysis of the statistical data for corrective action and for continuous upgradation of these procedures for the following year.
		6.5	Method of sampling and analysis shall be prescribed by the NRL.
		6.6	The NRL shall obtain update pertaining to any amendments in the aflatoxin levels of the importing countries with the help of the industry and disseminate the same to authorized laboratories.
		6.7	On the basis of analysis of data provided by the laboratories, the NRL shall prepare and organize a calendar of training and awareness programmes for the processors and laboratories.
		6.8	The NRL shall prepare a calendar of training on testing procedures, methods of analysis, etc. for each contaminant or group of contaminants for the authorized laboratories.
		6.9	The NRL shall prepare a calendar and organize proficiency/interlaboratory testing for the authorized laboratories.
		6.10	In cases, where aflatoxin contents are found to be higher than the permitted levels, it will issue "Internal Alert Information" as per format given in Annexure-IV . This alert shall be issued without any delay. It will advise the exporters, APEDA and authorized laboratories about the measures required to be taken.
		6.11	In case, the sample after re-analysis passes the requirement, the NRL shall without delay revoke the Internal Alert information, which shall take effect on that date. In this regard, the NRL shall intimate all concerned about the new status.
		6.12	The NRL shall submit annual report to APEDA in the month of April every year.
7.	Powers of NRL	7.1	The NRL shall have the right to draw samples from registered PPP and authorized laboratories.
		7.2	The NRL shall have the right to verify analysis data corresponding to the samples drawn and/or tested by the authorized laboratories. The NRL shall also have authority to inspect/audit the authorized laboratories and their analysis records without prior notice.
		7.3	The NRL shall recommend to APEDA for derecognition of authorized laboratories in the event of non-compliance with the method of sampling and analysis of PPP.

8.	Functions of APEDA	8.1	Overall monitoring regarding functioning of NRL, authorized laboratories, exporters, PPP units, etc. will be carried out by APEDA. PPP meant for exports shall be subject to issuance of Certificate of Exports by APEDA.	
		8.2	Where necessary, APEDA shall nominate a Committee consisting of representatives of APEDA, NRL, State Government, DGR, etc. to ascertain the veracity of an issue/document or for any other purpose in the interest of PPP exports.	
		8.3	On receipt of applications in APEDA, it will process and issue Certificate of Export in the format given in Annexure-X after ensuring that the laboratory test report meets the requirements of this document and that processing and packaging has been carried out in a peanut processing unit having valid registration.	
		8.4	In case any amendment(s) in the Certificate of Export is/are required, the processor/exporter will apply to APEDA for effecting the amendment. The original and all copies of the certificate issued to the processor/exporter will have to be submitted for this purpose.	
9.	Procedure for issuance of Certificate of Exports	9.1	Online system shall not allow application for Certificate of Export (COE) if the aflatoxin analysis failed. Exporter has to submit online application through Peanut.Net system for issuance of COE upon issuance of lab analysis report.	
		9.2	Certificate of exports shall be issued by APEDA to the exporter/processor for the quantity that qualify aflatoxin test based on the test report issued by the authorized laboratory stating that the processing and packaging has been carried out in a processing unit, warehouse registered by APEDA with registration number.	
		9.3	On receipt of the online application for COE in APEDA, it will be examined for compliance of the procedure and thereafter, COE shall also be issued online with digitally signed.	
		9.4	With the implementation of online issuance of COEs with digital signature APEDA shall not consider any request for amendment in the COE once issued. Exporter has to ensure its correctness before submission of the application to APEDA.	
		9.5	The exporter shall apply online for container loading/stuffing certificate after issuance of COE and obtaining Health Certificate from the concern agencies. The laboratory shall provide a Container Stuffing Certificate to the exporter online after stuffing the container in the presence of lab official.	

		9.6	After loading/stuffing of the container, the laboratory shall provide a Container Stuffing Certificate to the shipper in the format given in Annexure-V .	
		9.7	All exporters shall request, wherever required, one of the Government of India notified Phyto Sanitary Certificate (PSC) issuing authorities to issue PSC in accordance with the advisory issued by Plant Protection Advisor, Government of India vide letter dated 26.2.2015 to issue PSC alongwith the Exporter's/Shipper's declaration as per procedure prescribed by them given in Annexure-VI.	
10	Guidelines for dealing with PPP rejections & complaints	10.1	Guidelines for dealing with rejections and complaints are given in Annexure-VII .	
		10.2	The exporters shall apply to APEDA for obtaining No Objection Certificate (NOC) in the format as given in Annexure-VIII .	
		10.3	APEDA shall evaluate the application and take a decision for issue of NOC for import of rejected consignment provided the rejected consignment do not exceed domestic levels of aflatoxins.	
		10.4	On issue of an NOC by APEDA to import the rejected consignment, a copy of the NOC shall be submitted to FSSAI alongwith level of aflatoxins.	
		10.5	Onus of providing information on latest MLs of aflatoxins in PPP shall be of exporter. Exporters shall submit this information to APEDA for advising the authorized laboratories.	
11	Penal Provisions	11.1	In the event of breach of procedures given in this document, APEDA may initiate action as per the provisions of the APEDA Act, 1985, in addition to followings:	
			 a) Cancellation of Registration-cum-Membership Certificate for a limited period or permanent. b) Notifying to DGFT for cancellation of Import-Export Code Number allocated to such exporters. c) Any other action as deemed fit. d) 	

Place: New Delhi Date: 04/04/2018 Signed/-D K Singh Chairman-APEDA

Method of sampling & analysis for export of Peanuts and Peanut Products

Following reference to method of sampling shall apply:

- (i) For consignments of PPP for categories (i) and (ii) meant for exports to the EU, Commission Regulation (EC) No. 178/2010 of 2 March 2010 amending Commission Regulation (EC) No. 401/2006 of 23 February 2006.
- (ii) For consignments of PPP for category (iii) for feed stuffs meant for export to EU, Commission Regulation 691/2013 of 19 July 2013 amending Regulation (EC) No. 152/2009 of 27 Jan 2009.
- (iii) For consignments of PPP for category (iv) to (viii) Codex guidelines (Codex Stan 193-1995)

Primary responsibility of the authorized laboratories shall be draw and test samples as per instructions and declare that the PPP sampled and tested pertaining to respective batches qualify for either of the following categories. Levels of aflatoxins shall be reported in $\mu g/kg$ and moisture content shall be reported in %age. Following are the categories of PPP for exports:

- (i) Groundnuts (peanuts) and processed products thereof, intended for direct human consumption or as an ingredient in foodstuffs, with the exception of crude vegetable oils destined for refining and refined vegetable oils for exports to EU;
- (ii) Groundnuts (peanuts) to be subjected to sorting or other physical treatment or further processing, before human consumption or use as an ingredient in foodstuffs with the exception of groundnuts (peanuts) for crushing for refined vegetable oil production for exports to EU;
- (iii) Groundnuts (peanuts) as bird feed for exports to EU;
- (iv) Groundnuts (peanuts) for exports to Russian Federation;
- (v) Groundnuts (peanuts) for exports to Japan and Korea;
- (vi) Groundnuts (peanuts) for exports to Malaysia, Indonesia and countries following Codex MLs;
- (vii) Groundnuts (peanuts) for exports to Thailand
- (viii) Groundnuts (peanuts) and groundnut products for exports to any other country

Description of method of sampling:

- (i) For consignments of PPP for categories (i) and (ii) meant for exports to the EU Commission Regulation (EC) No. 178/2010 of 2 March 2010 amending Commission Regulation (EC) No. 401/2006 of 23 February 2006.
- 1.1 Requirement of sampling

The authorized laboratories shall follow validated method of sampling and analysis for determination of aflatoxins in PPP.

1.2 Requirements of analysis

The method of analysis for aflatoxins B_1 and $B_1+B_2+G_1+G_2$ shall be validated and confirmatory only. With regards to analysis of moisture %age validated method of analysis shall be followed and the same shall be declared by the authorized laboratories. The authorized laboratories shall use HPLC equipment with immunoassay fluorescent detector (FLD) for determination of aflatoxins keeping in view accuracy, applicability (matrix and concentration range). Limit of detection, limit of quantification, precision, repeatability, recovery, reproducibility, selectivity, sensitivity, linearity, measurement uncertainty and other criteria shall be selected as recommended by the NRL.

- 1.3 The authorized laboratories shall clearly label the respective lots of consignments for the above categories of PPP.
- 1.4 Exporters, processors and authorized laboratories shall follow the guidelines pertaining to sampling, which are as follows:
- 1.5 Different types of lots: Commodities traded in bulk, containers, or individual packing, such as sacks, bags, retail packing. The method of sampling shall be applied to all the different forms in which the commodities are put on the market.

Without prejudice to the specific provisions, following formula shall be used as a guide for the sampling of lots traded in individual packs, such as sacks, bags, retail packing.

Sampling frequency (SF) $n = Weight of the lot \times Weight of the incremental sample$ Weight of the aggregate sample \times Weight of individual packing

- Weight: in kg
- Sampling frequency (SF): every nth sack or bag from which an incremental sample must be taken (decimal figures should be rounded to the nearest whole number).
- 1.6 The sampling procedure with regards the subdivision of lots into sub lots, the number of (base) samples to be taken from the sub lot, the aggregate sample weight (kg) and the preparation of the laboratory sample.
- 1.7 For each lot, the incremental samples of peanut and peanut products from each sublot are pooled, and thoroughly mixed to yield the aggregate sample.
- 1.8 In case of sampling from jute bags the sampling will be carried out provided the jute bags are fresh and inner coated. In case of big bags sampling will be carried out only from PP bags provided they are leak proof so as to maintain <7% moisture until delivery at destination. The required number of base samples can be obtained in the following manner, with the objective of acquiring a representative collective sample:

Samples shall be taken from 100 different individual bags in case of 50 kg bags Samples shall be taken from all big bags from all sides as well as from top, middle and bottom

- 1.9 Sampling method: This method of sampling is for application for control of maximum levels of aflatoxin B1 and total aflatoxins in groundnuts (peanuts and their products).
- 1.10 Weight of the incremental sample

The weight of the incremental sample shall be about 200 grams, unless otherwise defined.

In the case of lots in retail packings, the weight of the incremental sample depends on the weight of the retail packing.

In the case of retail packs of more than 200 grams, this will result in aggregate samples weighing more than 20 kg. If the weight of a single retail pack is much more than 200 grams, then 200 grams shall be taken from each individual retail pack as an incremental sample. This can be done either when the sample is taken or in the laboratory. However, in cases where such method of sampling would lead to unacceptable commercial consequences resulting from damage to the lot (because of packaging forms, means of transport, etc.), then an alternative method of sampling can be applied. For example, in case where a valuable product is marketed in retail packs of 500 grams or 1 kg, the aggregate sample can be obtained by the aggregation of a number of incremental samples that is smaller than the number indicated in tables 1, 2 and 3, on the condition that the weight of the aggregate sample corresponds to the required weight of the aggregate sample mentioned in tables 1, 2 and 3.

1.11 Where the retail pack is less than 200 grams and if the difference is not very large, one retail pack shall be considered as one incremental sample, resulting in an aggregate sample of less than 20 kg. If the weight of the retail pack is much less than 200 grams, one incremental sample shall consist of two or more retail packs, whereby the 200 grams are approximated as closely as possible

General method of sampling:

Table 1
Subdivision of lots into sublots depending on product and lot weight

Commodity	Lot weight (tonne)	Weight or number of	No incremental	Aggregate sample
		sublots	samples	weight (kg)
Groundnuts	> 500	100 tonnes	100	20
(peanuts)	> 125 & <500	5 sublots	100	20
	\geq 15 and \leq 125	25 tonnes	100	20
	< 15		10-100 (*)	≤ 20

^{*}Depending on the lot weight – see table 2

- 1.12 On condition that the sublot can be separated physically, each lot shall be subdivided into sublots following table 1. Taking into account that the weight of the lot is not always an exact multiple of the weight of the sublots, the weight of the sublot may exceed the mentioned weight by a maximum of 20 %.
 - Each sublot shall be sampled separately
 - Number of incremental samples: 100
 - Weight of the aggregate sample = 20 kg which shall be mixed and to be divided into two equal laboratory samples of 10 kg before wet grinding (this division into two laboratory

samples is not necessary in case of groundnuts (peanuts) subjected to further sorting or other physical treatment and of the availability of equipment which is able to homogenize a 20 kg sample).

- Each laboratory sample of 10 kg groundnut kernels mixed with 10 liter of potable water in a container shall be wet grinded at ambient temperature in one go finely in less than ten minutes time mixed thoroughly to achieve complete homogenization.

1.13 Method of sampling for groundnuts (peanuts) (lots < 15 tonnes)

The number of incremental samples to be taken depends on the weight of the lot, with a minimum of 10 and a maximum of 100.

The figures in the following table 2 may be used to determine the number of incremental samples to be taken and the subsequent division of the aggregate sample.

Table 2

Number of incremental samples to be taken depending on the weight of the lot and number of subdivisions of the aggregate sample

Lot weight (tonnes)	No. of	Aggregate sample Weight (kg)	No of laboratory samples
	incremental	(in case of retail packings,	from aggregate sample
	samples	weight of aggregate sample can	
		diverge	
≤ 0,1	10	2	1 (no division)
$>0,1-\leq 0,2$	15	3	1 (no division)
$>0,2-\leq0,5$	20	4	1 (no division)
$> 0.5 - \le 1.0$	30	6	1 (no division)
$> 1,0-\leq 2,0$	40	8 (- < 12 kg)	1 (no division)
$>$ 2,0 $ \leq$ 5,0	60	12	2
$> 5.0 - \le 10.0$	80	16	2
$> 10,0- \le 15,0$	100	20	2

Weight of the aggregate sample ≤ 20 kg which shall be mixed and if necessary divided into two equal laboratory samples of ≤ 10 kg before wet grinding (this division into two laboratory samples is not necessary in case of, groundnuts (peanuts) subjected to further sorting or other physical treatment and of the availability of equipment which is able to homogenize up to 20 kg samples).

In cases where the aggregate sample weights are less than 20 kg, the aggregate sample shall be divided into laboratory samples according to following guidance:

- < 12 kg: no division into laboratory samples;
- \geq 12 kg division into two laboratory samples.
- Each laboratory sample shall be separately ground finely and mixed thoroughly to achieve complete homogenisation, in accordance with the provisions laid down.
- If it is not possible to carry out the method of sampling described above because of the unacceptable commercial consequences resulting from damage to the lot (because of

packaging forms, means of transport, etc.) an alternative method of sampling may be applied provided that it is as representative as possible and is fully described and documented.

- 1.14 Method of sampling for derived products, with the exception of vegetable oil, and compound foods.
- 1.14.1 Derived products (other than vegetable oil) with small particle size, i.e. flour, peanut butter (homogeneous distribution of aflatoxin contamination)

Number of incremental samples: 100; for lots of under 50 tons the number of incremental samples shall be 10 to 100, depending on the lot weight (see table 3),

Table 3

Number of incremental samples to be taken depending on the weight of the lot

Lot weight (tonnes)	No of incremental samples	Aggregate sample weight (kg)
≤ 1	10	1
>1-≤3	20	2
> 3 − ≤ 10	40	4
> 10 − ≤ 20	60	6
> 20 − ≤ 50	100	10

- The weight of the incremental sample shall be about 100 grams. In case of lots in retail packing, the weight of the incremental sample depends on the weight of the retail packing,
- Weight of aggregate sample = 1-10 kg sufficiently mixed,
- 1.14.2 Derived products with are relatively large particle size (heterogeneous distribution of aflatoxin contamination).
- 1.15 Sampling at retail stage

Sampling of foodstuffs at the retail stage shall be done where possible in accordance with the provisions set out.

Where that is not possible, other effective methods of sampling at retail stage may be used provided that they ensure that the aggregate sample is sufficiently representative of the sampled lot and is fully described and documented. In any case, the aggregate sample shall be at least 1 kg. In case the portion to be sampled is so small that it is impossible to obtain an aggregate sample of 1 kg, the aggregate sample weight might be less than 1 kg.

1.16 Specific method of sampling for groundnuts (peanuts) and derived products traded in vacuum packs

For lots equal to or more than 15 tonnes at least 50 incremental samples resulting in a 20 kg aggregate sample shall be taken and for lots of less than 15 tonnes, 50 % of the number of incremental samples mentioned in table 2 shall be taken resulting in an aggregate sample of which the weight corresponds to the weight of the sampled lot (see table 2). The laboratories shall sample peanuts from gunny bags. The labs shall also supervise vacuum packing.

1.17 Products derived from groundnuts (peanuts) with small particle size

For lots equal to or more than 50 tonnes at least 25 incremental samples resulting in a 10 kg aggregate sample shall be taken and for lots less than 50 tonnes, 25 % of the number of incremental samples mentioned in table 3 shall be taken resulting in an aggregate sample of which the weight corresponds to the weight of the sampled lot (see table 3).

1.18 In case of products manufactured using peanuts and the derived products category, irrespective of different varieties of derived peanut products like salted, pepper, namkeen, gud, bhujia, etc. the lab shall draw number of incremental samples as given in table 3. The exporter shall create the lot as single consignment in Peanet.Net. Compliance to the sampling requirements shall be of the exporter.

1.19 Acceptance of a lot or sublot

For groundnuts (peanuts) subjected to a sorting or other physical treatment:

- Acceptance if the aggregate sample or the average of the laboratory samples conforms to the maximum limit, taking into account the correction for recovery and measurement uncertainty,
- Rejection if the aggregate sample or the average of the laboratory samples exceeds the maximum limit beyond reasonable doubt taking into account the correction for recovery and measurement uncertainty,

For groundnuts (peanuts) intended for direct human consumption:

- Acceptance if none of the laboratory samples exceeds the maximum limit, taking into account the correction for recovery and measurement uncertainty,
- Rejection if one or both of the laboratory samples exceeds the maximum limit beyond reasonable doubt taking into account the correction for recovery and measurement uncertainty,

In cases where the aggregate sample is 12 kg or less:

- Acceptance if the laboratory sample conforms to the maximum limit, taking into account the correction for recovery and measurement uncertainty,
- Rejection if the laboratory sample exceeds the maximum limit beyond reasonable doubt taking into account the correction for recovery and measurement uncertainty.
- (ii) For consignments of PPP for category (iii) for feed stuffs meant for export to EU, Commission Regulation 691/2013 of 19 July 2013 amending Regulation (EC) No. 152/2009 of 27 January 2009.

1 Purpose and scope:

Samples intended for the official control of feed shall be taken according to the methods described below. Samples thus obtained shall be considered as representative of the sampled portions.

The purpose of representative sampling is to obtain a small fraction from a lot in such a way that a determination of any particular characteristic of this fraction will represent the mean value of the

characteristic of the lot. The lot shall be sampled by repeatedly taking incremental samples at various single positions in the lot. These incremental samples shall be combined by mixing to form an aggregate sample from which representative final samples shall be prepared by representative dividing.

If by a visual inspection, portions of the feed to be sampled show a difference in quality from the rest of the feed from the same lot, such portions shall be separated from the rest of the feed and treated as a separate sublot. If it is not possible to divide the feed into separate sublots, the feed shall be sampled as one lot. In such cases, mention shall be made of this fact in the sampling report.

Where a feed sampled in accordance with the provisions identified as not satisfying EU requirements, is part of a lot of feed of the same class or description, it shall be presumed that all of the feed in that lot is so affected, unless following a detailed assessment there is no evidence that the rest of the lot fails to satisfy the EU requirements

2 Definitions:

- Lot (or batch): an identified quantity of feed determined to have common characteristics, such as origin, variety, type of packaging, packer, consignor or labelling, and in case of a production process, a unit of production from a single plant using uniform production parameters or a number of such units, when produced in continuous order and stored together.
- Sampled portion: A lot or an identified part of the lot or sublot.
- Sealed sample: a sample sealed in such a manner as to prevent any access to the sample without breaking or removing the seal.
- Incremental sample: A quantity taken from one point in the sampled portion.
- Aggregate sample: An aggregate of incremental samples taken from the same sampled portion.
- Reduced sample: A part of the aggregate sample, obtained from the latter by a process of representative reduction.
- Final sample: A part of the reduced sample or of the homogenised aggregate sample.
- Laboratory sample: a sample intended for the laboratory (as received by the laboratory) and can be the final, reduced or aggregate sample.

3. General Provisions

- Sampling personnel: the samples shall be taken by persons authorised for that purpose by the competent authority.
- The sample has to be sealed in such a manner as to prevent any access to the sample without breaking or removing the seal. The seal's mark should be clearly identifiable and clearly visible. Alternatively, the sample can be put in a recipient which can be closed in such a manner that it cannot be opened without irreversibly damaging the receptacle or container, avoiding the re-use of the receptacle or container.
- Identification of the sample: the sample has to be indelibly marked and must be identified in such a way that there is an unambiguous link to the sampling report.
- From each aggregate sample at least two final samples are taken: at least one for control (enforcement) and one for the feed business operator (defence). Eventually, one final sample may be taken for reference. In case the complete aggregate sample is homogenized, the final samples are taken from the homogenized aggregate sample, unless such procedure conflicts with Member States' rules as regards the right of the feed business operator.

4. Apparatus

- 4.1. The sampling apparatus must be made of materials which cannot contaminate the products to be sampled. Apparatus which is intended to be used multiple times must be easy to clean to avoid any cross-contamination.
- 4.2. Apparatus recommended for the sampling of solid feed
- 4.2.1 Manual sampling
- 4.2.1.1 Flat-bottomed shovel with vertical sides
- 4.2.1.2 Sampling spear with a long split or compartments. The dimensions of the sampling spear must be appropriate to the characteristics of the sampled portion (depth of container, dimensions of sack, etc.) and to the particle size of the feed.

In case the sampling spear has several apertures, in order to ensure that the sample is taken at the different locations alongside the spear, the apertures should be separated by compartments or sequentially staggered apertures.

4.2.2 Mechanical sampling

Appropriate mechanical apparatus may be used for the sampling of moving feed. Appropriate means that at least the whole section of the flow is sampled.

Sampling of feed in motion (at high flow rates) can be performed by automatic samplers.

4.2.3 Divider

If possible and appropriate, apparatus designed to divide the sample into approximately equal parts should be used for the preparation of reduced samples in a representative way.

- 5. Quantitative requirements as regards number of incremental samples
 - The quantitative requirements in points 5.1 and 5.2 as regards the number of incremental samples are applicable for sampled portion sizes up to a maximum of 500 tonnes and which can be sampled in a representative way. The sampling procedure described is equally valid for quantities larger than prescribed maximum sampled portion size provided that the maximum number of incremental samples given in the tables below is ignored, the number of incremental samples being determined by the square-root formula given in the appropriate part of the procedure (see point 5.3) and the minimum aggregate sample size increased proportionally. This does not prevent a large lot being divided into smaller sublots and each sublot sampled in accordance with the procedure described in points 5.1 and 5.2.
 - The size of the sampled portion must be such that each of its constituent parts can be sampled.
 - For very large lots or sublots (> 500 tonnes) and for lots which are transported or stored in such a way that sampling cannot be done in accordance with the sampling procedure provided for in points 5.1 and 5.2 of this chapter, the sampling procedure as provided for in point 5.3 is to be applied.

- In case the feed business operator is required by legislation to comply with this Regulation within the frame of a mandatory monitoring system, the feed business operator may deviate from the quantitative requirements as provided for in this chapter to take into account operational characteristics on the condition that the feed business operator has demonstrated to the satisfaction of the competent authority the equivalence of the sampling procedure as regards representativeness and after authorisation from the competent authority.
- In exceptional cases, if it is not possible to carry out the method of sampling set out as regards the quantitative requirements because of the unacceptable commercial damage to the lot (because of packaging forms, means of transport, way of storage etc.) an alternative method of sampling may be applied provided that it is as representative as possible and is fully described and documented.
- 5.1. Quantitative requirements as regards incremental samples in relation to the control of substances or products uniformly distributed throughout the feed

5.1.1 Loose solid feed

Size of sampled portion	Minimum number of incremental samples	
\leq 2,5 tonnes	7	
> 2,5 tonnes	$\sqrt{20}$ times the number of tonnes making up the sampled portion	
(*), up to 40 incremental samples		
(*) Where the number obtained is a fraction, it shall be rounded up to the next whole number.		

5.1.2 Packaged feed

Feed (solid and liquid) can be packaged in bags, sacks, cans, barrels etc. which are referred to in the table as units. Large units ($\geq 500 \text{ kg}$ or litres) have to be sampled in accordance with the provisions foreseen for loose feed (see points 5.1.1).

Size of sampled portion	Minimum number of units from which (at least) one incremental
	sample has to be taken (*)
1 to 20 units	1 unit (**)
21 to 150 units	3 units (**)
151 to 400 units	5 units (**)
> 400 units	$\frac{1}{4}$ of the $\sqrt{\text{number of units making up the sampled portion (***)}},$
	up to 40 units

^(*) In the case where opening of an unit might affect the analysis

5.2. Quantitative requirements as regards incremental samples in relation to the control of constituents or substances likely to be distributed non-uniformly in feed

These quantitative requirements as regards incremental samples are to be used in the following situations:

^(**) For units whose contents do not exceed 1 kg, an incremental sample shall be the contents of one original unit.

^(***) Where the number obtained is a fraction, it shall be rounded up to the next whole number.

- Control of aflatoxins, rye ergot, other mycotoxins and harmful botanical impurities in feed materials;
- Control of cross contamination by a constituent, including GM material, or substance for which non-uniform distribution is expected in feed materials.

In case the control authority has strong suspicion that such a non-uniform distribution occurs also in case of cross contamination by a constituent or substance in a compound feed, the quantitative requirements as provided for in the table below can be applied.

Size of sampled portion	Minimum number of incremental samples		
< 80 tonnes	See quantitative requirements under point 5.1. The number of		
	incremental samples to be taken has to be multiplied by 2.5.		
\geq 80 tonnes	100		

- 5.3. Quantitative requirements as regards the incremental samples in the case of very large lots. In the case of large sampled portions (sampled portions > 500 tonnes), the number of incremental samples to be taken = 40 incremental samples + $\sqrt{}$ tonnes in relation to the control of substances or products uniformly distributed throughout the feed or 100 incremental samples + $\sqrt{}$ tonnes in relation to the control of constituents or substances likely to be distributed non-uniformly in feed materials.
- 6. Quantitative requirements as regards aggregate sample

A single aggregate sample per sampled portion is required					
	Nature of feed Minimum size of aggregate sample (*)				
6.1	Loose feed	4 kg			
6.2	Packaged feed:	4 kg (**)			

^(*) In case the sampled feed is of high value, a smaller quantity of aggregate sample can be taken on the condition this is described and documented in the sampling report.

7. Quantitative requirements as regards final samples

Final samples

Analysis of at least one final sample is required. The amount in the final sample for analysis shall be not less than the following:

Solid feed	500 g (*)
(*)In case the size of the	e aggregate sample is significantly less than 4 kg, also a smaller
quantity of final sample ca	in be taken on the condition this is described and documented in the
sampling report.	

- 8. Method of sampling for very large lots or lots stored or transported in a way whereby sampling throughout the lot is not feasible
- 8.1. General principles

^(**)In case of packaged feed, it may also not be possible to achieve the size of 4 kg for the aggregate sample depending of the size of the individual units.

In case way of transport or storage of a lot does not enable to take incremental samples throughout whole lot, sampling of such lots should preferably be done when the lot is in flow.

In case of large warehouses destined to store feed, operators should be encouraged to install equipment in the warehouse enabling (automatic) sampling across the whole stored lot.

In case of applying the sampling procedures, the feed business operator or his representative is informed of the sampling procedure. In case this sampling procedure is questioned by the feed business operator or his representative, the feed business operator or his representative shall enable the competent authority to sample throughout the whole lot at his/her cost.

8.2. Large lots transported by ship

8.2.1 Dynamic sampling of large lots transported by ship

The sampling of large lots in ships is preferably carried out while the product is in flow (dynamic sampling).

The sampling is to be done per hold (entity that can physically be separated). Holds are however emptied partly one after the other so that the initial physical separation does no longer exist after transfer into storage facilities. Sampling can therefore be performed in function of the initial physical separation or in function of the separation after transfer into the storage facilities.

The unloading of a ship can last for several days. Normally, sampling has to be performed at regular intervals during the whole duration of unloading. It is however not always feasible or appropriate for an official inspector to be present for sampling during the whole operation of unloading. Therefore sampling is allowed to be undertaken of part (sampled portion) of the whole lot. The number of incremental samples is determined by taking into account the size of the sampled portion.

In the case of sampling a part of a lot of feed of the same class or description and that part of the lot has been identified as not satisfying EU requirements, it shall be presumed that all of the feed in that lot is so affected, unless following a detailed assessment there is no evidence that the rest of the lot fails to satisfy the EU requirements.

Even if the official sample is taken automatically, the presence of an inspector is necessary. However in case the automatic sampling is done with preset parameters which cannot be changed during the sampling and the incremental samples are collected in a sealed receptacle, preventing any possible fraud, then the presence of an inspector is only required at the beginning of the sampling, every time the receptacle of the samples needs to be changed and at the end of the sampling.

8.2.2 Sampling of lots transported by ship by static sampling

In case the sampling is done in a static way the same procedure as foreseen for storage facilities (silos) accessible from above has to be applied.

The sampling has to be performed on the accessible part (from above) of the lot/hold. The number of incremental samples is determined by taking into account the size of the sampled portion. In the

case of sampling a part of a lot of feed of the same class or description and that part of the lot has been identified as not satisfying EU requirements, it shall be presumed that all of the feed in that lot is so affected, unless following a detailed assessment there is no evidence that the rest of the lot fails to satisfy the EU requirements.

8.3. Sampling of large lots stored in warehouses

The sampling has to be performed on the accessible part of the lot. The number of incremental samples is determined by taking into account the size of the sampled portion. In the case of sampling a part of a lot of feed of the same class or description and that part of the lot has been identified as not satisfying EU requirements, it shall be presumed that all of the feed in that lot is so affected, unless following a detailed assessment there is no evidence that the rest of the lot fails to satisfy the EU requirements.

- 8.4. Sampling of storage facilities (silos)
- 8.4.1. Sampling of silos (easily) accessible from above

The sampling has to be performed on the accessible part of the lot. The number of incremental samples is determined by taking into account the size of the sampled portion. In the case of sampling a part of a lot of .feed of the same class or description and that part of the lot has been identified as not satisfying EU requirements, it shall be presumed that all of the feed in that lot is so affected, unless following a detailed assessment there is no evidence that the rest of the lot fails to satisfy the EU requirements.

- 8.4.2. Sampling of silos not accessible from above (closed silos)
- 8.4.2.1 Silos not accessible from above (closed silos) without size > 100 tonnes

Feed stored in such silos cannot be sampled in a static way. Therefore in case the feed in the silo has to be sampled and there is no possibility to move the consignment, the agreement has to be made with the operator that he or she has to inform the inspector about when the silo will be unloaded in order to enable sampling when the feed is in flow.

- 8.4.2.2 Silos not accessible from above (closed silos) without size < 100 tonnes Sampling procedure involves the release into a receptacle of a quantity of 50 to 100 kg and taking the sample from it. The size of the aggregate sample corresponds to the whole lot and the number of incremental samples relate to the quantity of the silo released in a receptacle for sampling. In the case of sampling a part of a lot of feed of the same class or description and that part of the lot has been identified as not satisfying EU requirements, it shall be presumed that all of the feed in that lot is so affected, unless following a detailed assessment there is no evidence that the rest of the lot fails to satisfy the EU requirements.
- 8.5. Sampling of loose feed in large closed containers

Such lots can often only be sampled when unloaded. It is in certain cases not possible to unload at the point of import or control and therefore the sampling should take place when such containers are unloaded.

9. Instructions for taking, preparing and packaging the samples

9.1. General

The samples must be taken and prepared without delay bearing in mind the precautions necessary to ensure that the product is neither changed nor contaminated. Instruments and also surfaces and containers intended to receive samples must be clean and dry.

9.2. Incremental samples

Incremental samples must be taken at random throughout the whole sampled portion and they must be of approximately equal sizes.

The incremental sample size is at least 100 grams or 25 grams in case of roughage or forage with low specific gravity.

In case that in accordance with the rules for the sampling procedure established in point 8 less than 40 incremental samples have to be taken, the size of the incremental samples shall be determined in function of the required size of the aggregate sample to be achieved.

In case of sampling of small lots of packaged feed where according to the quantitative requirements a limited number of incremental samples have to be taken, an incremental sample shall be the contents of one original unit whose contents do not exceed 1 kg.

In case of sampling of packaged feed composed of small units (e.g. < 250 g), the size of the incremental sample depends on the size of the unit.

9.2.1. Loose feed

Where appropriate, sampling may be carried out when the sampled portion is being moved (loading or unloading).

9.2.2. Packaged feed

Having selected the required number of units for sampling, part of the contents of each unit shall be removed using a spear or shovel. Where necessary, the samples shall be taken after emptying the units separately.

9.3. Preparation of aggregate samples

The incremental samples shall be mixed to form a single aggregate sample.

9.4. Preparation of final samples

The material in the aggregate sample shall be carefully mixed

- Each sample shall be put into an appropriate container/receptacle. All necessary precautions shall be taken to avoid any change of composition of the sample, contamination or adulteration which might arise during transportation or storage.

- In case of the control of constituents or substances uniformly distributed throughout the feed, the aggregate sample can be representatively reduced to at least 20 kg (reduced sample) preferably either by using a mechanical or automatic divider. From the reduced samples the final samples (for control, defence and reference) shall then be prepared of approximately the same amount and conforming to the quantitative requirements.

9.5. Packaging of samples

The containers or packages shall be sealed and labelled in such a manner that they cannot be opened without damaging the seal. The total label must be incorporated in the seal.

9.6. Sending of samples to the laboratory

The sample shall be sent without unnecessary delay to the designated analytical laboratory, together with the information necessary for the analyst.

10. Sampling record

A record must be kept of each sample, permitting each sampled portion and its size to be identified unambiguously.

The record shall also mention any deviation of the sampling procedure as provided for in this Regulation.

Besides making the record available to the official control laboratory, the record shall be made available to the feed business operator and/or the laboratory designated by the feed business operator.

11. General provisions on methods of analysis for feed - Preparation of samples for analysis

11.1 Purpose

The procedures described below concern the preparation for analysis of samples, sent to the control laboratories after sampling in accordance with the provisions as laid down.

The laboratory samples must be prepared in such a way that the amounts weighed out, as provided for in the methods of analysis, are homogeneous and representative of the final samples.

11.1 Precautions to be taken

The sample preparation procedure to be followed is dependent on the methods of analysis to be used and the constituents or substances to be controlled. It is therefore of major importance that it is ensured that the followed sample preparation procedure is appropriate for the used method of analysis and for constituents or substances to be controlled.

All the necessary operations must be performed in such a way as to avoid as far as possible contamination of the sample and changes of its composition.

Grinding, mixing and sieving shall be carried out without delay with minimal exposure of the sample to the air and light. Mills and grinders likely to appreciably heat the sample shall not be used.

Manual grinding is recommended for feed which are particularly sensitive to heat. Care shall also be taken to ensure that the apparatus itself is not a source of contamination.

If the preparation cannot be carried out without significant changes in the moisture content of the sample, determine the moisture content before and after preparation according to the method as laid down.

11.3 Procedure

11.3.1 General procedure

The test aliquot is taken from the final sample. Coning and quartering is not recommended because this might provide test aliquots with high splitting error.

11.3.2 Feed which can be ground as such

Mix the sieved final sample and collect it in a suitable clean, dry container fitted with an air-tight stopper. Mix again in order to ensure full homogenisation, immediately before weighing out the amount for analysis (test aliquot).

11.3.2 Feed which can be ground after drying

Unless otherwise specified in the methods of analysis, dry the final sample to bring its moisture content down to a level of 7 %, according to the preliminary drying procedure described under point method of determination of moisture.

11.3.3 Other feed

Final samples which cannot be prepared according to one of the above procedures shall be treated by any other procedure which ensures that the amounts weighed out for the analysis (test aliquot) are homogeneous and representative of the final samples.

- 11.4 Specific procedure in case of examination by visual inspection or by microscopy or in cases where the whole aggregate sample is homogenised
 - In case of an examination by visual inspection (without making use of microscope), the whole laboratory sample is used for examination.
 - In case of a microscopic examination, the laboratory may reduce the aggregate sample, or further reduce the reduced sample. The final samples for defence and eventually reference purposes are taken following a procedure equivalent to the procedure followed for the final sample for enforcement.
 - In case the whole aggregate sample is homogenized, the final samples are taken from the homogenized aggregate sample.

11.5 Storage of samples

Samples must be stored at a temperature that will not alter their composition. Samples intended for the analysis of vitamins or substances which are particularly sensitive to light shall be stored in such conditions that the sample is not adversely affected by light.

Provisions relating to reagents and apparatus used in methods of analysis

- 11.6 Unless otherwise specified in the methods of analysis, all analytical reagents must be analytically pure. When trace analysis is carried out, the purity of the reagents must be checked by a blank test. Depending upon the results obtained, further purification of the reagents may be required.
- 11.7 Any operation involving preparation of solutions, dilution, rinsing or washing, mentioned in the methods of analysis without indication as to the nature of the solvent or diluents employed, implies that water must be used. As a general rule, water shall be demineralised or distilled. In particular cases, which are indicated in the methods of analysis, it must be submitted to special procedures of purification.
- 11.8 In view of the equipment normally found in control laboratories, only those instruments and apparatus which are special or require specific usage are referred to in the methods of analysis. They must be clean, especially when very small amounts of substances have to be determined.

Application of methods of analysis and expression of the results

11.9 Extraction procedure

Several methods determine a specific extraction procedure. As a general rule, other extraction procedures than the procedure referred to in the method can be applied on the condition that the used extraction procedure has been proven to have the equivalent extraction efficiency for the matrix analysed as the procedure mentioned in the method.

11.10 Clean-up procedure

Several methods determine a specific clean-up procedure. As a general rule, other clean-up procedures than the procedure referred to in the method can be applied on the condition that the used clean-up procedure has been proven to result in equivalent analytical results for the matrix analysed as the procedure mentioned in the method.

11.11 Number of determinations

In case of the analysis of undesirable substances, if the result of the first determination is significantly (>50 %) lower than the specification to be controlled, no additional determinations are necessary, on the condition that the appropriate quality procedures are applied. In other cases a duplicate analysis (second determination) is necessary to exclude the possibility of internal cross-contamination or an accidental mix-up of samples. The mean of the two determinations, taking into account the measurement uncertainty is used for verification of compliance.

In case of the control of the declared content of a substance or ingredient, if the result of the first determination confirms the declared content, i.e. the analytical result falls within the acceptable range of variation of the declared content, no additional determinations are necessary, on the condition that the appropriate quality procedures are applied. In other cases a duplicate analysis (second determination) is necessary to exclude the possibility of internal cross-contamination or an accidental mix-up of samples. The mean of the two determinations, taking into account the measurement uncertainty is used for verification of compliance.

In some cases this acceptable range of variation is defined in legislation such as in Regulation (EC) No 767/2009 of the European Parliament and of the Council of 13 July 2009 on the placing on the market and use of feed, amending European Parliament and Council Regulation (EC) No 1831/2003 and repealing Council Directive 79/373/EEC, Commission Directive 80/511/EEC, Council Directives 82/471/EEC, 83/228/EEC, 93/74/EEC, 93/113/EC and 96/25/EC and Commission Decision 2004/217/EC.

12. Reporting of the method of analysis used: The analysis report shall mention the method of analysis used.

13. Reporting of the analytical result

The analytical result shall be expressed in the manner laid down in the method of analysis to an appropriate number of significant figures and shall be corrected, if necessary, to the moisture content of the final sample prior to preparation.

14. Measurement uncertainty and recovery rate in case of analysis of undesirable substances

As regards undesirable substances within the meaning of Directive 2002/32/EC, a product intended for animal feed shall be considered as non-compliant with the established maximum content, if the analytical result, relative to a feed with a moisture content of 12 %, is deemed to exceed the maximum content taking into account expanded measurement uncertainty and correction for recovery. In order to assess compliance, the analysed concentration is used after being corrected for recovery and after deduction of the expanded measurement uncertainty. This procedure is only applicable in cases where the method of analysis enables the estimation of measurement uncertainty and correction for recovery (e.g. not possible in case of microscopic analysis).

The analytical result shall be reported as follows (in so far the used method of analysis enables to estimate the measurement uncertainty and recovery rate):

- corrected for recovery, the level of recovery being indicated. The correction for recovery is not necessary in case the recovery rate is between 90-110 %.
- as 'x +/- U', whereby x is the analytical result and U is the expanded measurement uncertainty, using a coverage factor of 2 which gives a level of confidence of approximately 95 %.

However, if the result of the analysis is significantly (> 50 %) lower than the specification to be controlled, and on the condition that the appropriate quality procedures are applied and the analysis serves only the purpose of checking compliance with legal provisions, the analytical result might be reported without correction for recovery and the reporting of the recovery rate and measurement uncertainty might be omitted in these cases.

- (iii) For consignments of PPP for category (iv) to (viii) the sampling shall be as per Codex Guidelines (Codex Stan 193-1995):
- 1. It would be primary responsibility of the authorized laboratories to draw and test samples as per instructions and declare that the PPP sampled and tested pertaining to respective batches qualifies for exports.
- 2. Different types of lots: Food commodities may be traded in bulk, containers, or individual packing, such as sacks, bags, retail packing. The method of sampling may be applied to all the different forms in which the commodities are put on the market.
- 3. The sampling plan shall be for a single 20 kg laboratory sample of shelled peanuts (27 kg of unshelled peanuts) to be taken from a peanut lot (sub-lot) and tested for compliance of aflatoxins.
- 4. This sampling plan is for total aflatoxins in bulk consignments of peanuts for exports to the markets other than the above.
- 5. Definitions: Lot: an identifiable quantity of a food commodity delivered at one time and determined by the official to have common characteristics, such as origin, variety, type of packing, packer, consignor or markings.

Sub lot: designated part of a large lot in order to apply the sampling method on that designated part. Each sub lot must be physically separate and identifiable.

Sampling plan: is defined by an aflatoxin test procedure and an accept/reject limit. An aflatoxin test procedure consists of three steps: sample selection, sample preparation and aflatoxin quantification. The accept/reject limit is a tolerance usually equal to the Codex maximum limit.

Incremental sample: a quantity of material taken from a single random place in lot/sub lot.

Aggregate sample: the combined total of all the incremental samples taken from the lot or sub lot. The aggregate sample has to be at least as large as the 20 kg laboratory sample.

Laboratory sample: smallest quantity of peanuts comminuted in a mill. The laboratory sample may be a portion of or the entire aggregate sample. If the aggregate sample is larger than 20 kg, a 20 kg laboratory sample should be removed in a random manner from the aggregate sample. The sample should be finely ground and mixed thoroughly using a process that approaches as complete a homogenization as possible.

Test portion: portion of the comminuted laboratory sample. The entire 20 kg laboratory sample should be comminuted in a mill. A portion of the comminuted 20 kg sample is randomly removed for the extraction of the aflatoxin for chemical analysis.

- 6. Sampling and material to be sampled: Each lot, which is to be examined, must be sampled separately. Large lots should be subdivided into sub lots to be sampled separately. The subdivision can be done following provisions laid down in Table 1 below.
- 7. Taking into account the weight of lot is not always an exact multiple of weight of the sub lots, the weight of the sub lot may exceed the mentioned weight by a maximum of 20 %.

Table 1: Subdivision of Large Lots into Sub lots for Sampling

Commodity	Lot weight -	Weight or number	Number of	Laboratory Sample
	tonne (T)	of sub lots	incremental samples	Weight (kg)
Peanuts	≥500	100 tonnes	100	20
	> 100 and < 500	5 sublots	100	20
	\geq 25 and \leq 100	25 tonnes	100	20
	> 15 and <=25	1 sublot	100	20

Number of Incremental Samples for Lots of Less than 15 Tonnes

8. The number of incremental samples to be taken depends on the weight of the lot, with a minimum of 10 and a maximum of 100. The figures in the following Table 2 may be used to determine the number of incremental samples to be taken. It is necessary that the total sample weight of 20 kg is achieved.

Table 2: Number of incremental samples to be taken depending on the weight of the lot

Lot weight tonnes -(T) No. of incremental samples

Lot weight tones – (T)	No. of incremental samples
T <u><</u> 1	10
1 <t<5< td=""><td>40</td></t<5<>	40
5 <t<10< td=""><td>60</td></t<10<>	60
10 <t<15< td=""><td>80</td></t<15<>	80

- 9. Incremental Sample Selection: Procedures used to take incremental samples from a peanut lot are extremely important. Every individual peanut in the lot should have an equal chance of being chosen. Biases will be introduced by the sample selection methods if equipment and procedures used to select the incremental samples prohibit or reduce the chances of any item in the lot from being chosen.
- 10. Since there is no way to know if the contaminated peanut kernels are uniformly dispersed throughout the lot, it is essential that the aggregate sample be the accumulation of many small portions or increments of the product selected from different locations throughout the lot. If the aggregate sample is larger than desired, it should be blended and subdivided until the desired laboratory sample size is achieved.
- 11. Static Lots: A static lot can be defined as a large mass of peanuts contained either in a single large container such as a wagon, truck, or railcar or in many small containers such as sacks or boxes and the peanuts are stationary at the time a sample is selected. Selecting a truly random sample from a static lot can be difficult because the container may not allow access to all peanuts.
- 12. Taking aggregate sample from a static lot usually requires the use of probing devices to select product from the lot. The probing devices used should be specially designed for the type of container. The probe should (1) be long enough to reach all products, (2) not restrict any item in the lot from being selected, and (3) not alter the items in the lot. As mentioned above, the aggregate sample should be a composite from many small increments of product taken from many different locations throughout the lot.

- 13. For lots traded in individual packages, the sampling frequency (SF), or number of packages that incremental samples are taken from, is a function of the lot weight (LT), incremental sample weight (IS), aggregate sample weight (AS) and the individual packing weight (IP), as follows:
 - Equation 1: $SF = (LT \times IS) / (AS \times IP)$. The sampling frequency (SF) is the number of packages sampled. All weights should be in the same mass units such as kg.
- 14. Dynamic Lots: True random sampling can be more nearly achieved when selecting an aggregate sample from a moving stream of peanuts as the lot is transferred, for example, by a conveyor belt from one location to another. When sampling from a moving stream, take small increments of product from the entire length of the moving stream; composite the peanuts to obtain an aggregate sample; if the aggregate sample is larger than the required laboratory sample, then blend and subdivide the aggregate sample to obtain the desired size laboratory sample.
- 15. Automatic sampling equipment such as cross-cut samplers are commercially available with timers that automatically pass a diverter cup through the moving stream at predetermined and uniform intervals. When automatic equipment is not available, a person can be assigned to manually pass a cup though the stream at periodic intervals to collect incremental samples. Whether using automatic or manual methods, small increments of peanuts should be collected and composited at frequent and uniform intervals throughout the entire time peanuts flow past the sampling point.
- 16. Cross-cut samplers should be installed in the following manner: (1) the plane of the opening of the diverter cup should be perpendicular to the direction of flow; (2) the diverter cup should pass through the entire cross sectional area of the stream; and (3) the opening of the diverter cup should be wide enough to accept all items of interest in the lot. As a general rule, the width of the diverter cup opening should be about three times the largest dimensions of the items in the lot.
- 17. The size of the aggregate sample (S) in kg, taken from a lot by a cross cut sampler is:
 - Equation 2: $S = (D \times LT) / (T \times V)$. D is the width of the diverter cup opening (in cm), LT is the lot size (in kg), T is interval or time between cup movement through the stream (in seconds), and V is cup velocity (in cm/sec).
- 18. If the mass flow rate of the moving stream, MR (kg/sec), is known, then the sampling frequency (SF), or number of cuts made by the automatic sampler cup is: Equation 3: $SF = (S \times V) / (D \times MR)$.
- 19. Equation 2 can also be used to compute other terms of interest such as the time between cuts (T). For example, the required time (T) between cuts of the diverter cup to obtain a 20 kg aggregate sample from a 30,000 kg lot where the diverter cup width is 5.08 cm (2 inches), and the cup velocity through the stream 30 cm/sec. Solving for T in Equation 2 T = (5.08 cm x 30,000 kg)/(20 kg x 30 cm/sec) = 254 sec
- 20. If the lot is moving at 500 kg per minute, the entire lot will pass through the sampler in 60 minutes and only 14 cuts (14 incremental samples) will be made by the cup through the lot. This may be considered too infrequent, in that too much product passes through the sampler between the times the cup cuts through the stream.

- 21. Weight of the Incremental Sample: The weight of the incremental sample should be approximately 200 grams or greater, depending on the total number of increments, to obtain an aggregate sample of 20 kg.
- 22. Packaging and transmission of samples: Each laboratory sample shall be placed in a clean, inert container offering adequate protection from contamination and against damage in transit. All necessary precautions shall be taken to avoid any change in composition of the laboratory sample, which might arise during transportation or storage.
- 23. Sealing and labeling of samples: Each laboratory sample taken for official use shall be sealed at the place of sampling and identified. A record must be kept of each sampling, permitting each lot to be identified unambiguously and giving the date and place of sampling together with any additional information likely to be of assistance to the analyst.
- 24. Sample Preparation Precautions: Daylight should be avoided as much as possible during the procedure, since aflatoxin gradually breaks down under the influence of ultra-violet light.
- 25. The sample should be finely ground and mixed thoroughly using a process that achieves complete homogenisation without much change of product temperature as quickly as possible. Use of fast speed spindle type homogenizer (approx. 18,000-20,000 RPM) provides better homogenisation resulting in a lower sample preparation variance.
- 26. Homogenisation: As the distribution of aflatoxin is extremely non-homogeneous, lab samples should be taken from the prepared wet slurry for homogenization with extreme care. Laboratory sample obtained (approx. 500 g) from wet slurry is to be used for homogenization.
- 27. Test portion: A minimum test portion size of 100 g taken rest homogenized material can be stored for future reference.
- 28. Analytical Method: A criteria-based approach, whereby a set of performance criteria is established with which the analytical method used should comply, is appropriate. The criteria-based approach has the advantage that, by avoiding setting down specific details of the method used, developments in methodology can be exploited without having to reconsider or modify the specified method. The performance criteria established for methods should include all the parameters that need to be addressed by each laboratory such as the detection limit, repeatability coefficient of variation, reproducibility coefficient of variation, and the percent recovery necessary for various statutory limits. Utilizing this approach, laboratories would be free to use the analytical method most appropriate for their facilities. Analytical methods that are accepted by chemists internationally (such as AOAC) may be used. These methods are regularly monitored and improved depending upon technology.

Table 3: Specific Requirements with which Methods of Analysis should comply

Performance Criteria for Methods of Analysis

Criterion	Concentration Range	Recommended Value	Maximum Permitted Value
Blanks	All	Negligible	-
Recovery Aflatoxin Total	1- 15 μg/kg	70 to 110%	
	$> 15 \mu g/kg$	80 to 110%	

Precision RSD ^R	All	As	derived	from	2 ×	value	derived	from
		Hor	witz Equa	tion	Horv	vitz Eq	uation	
Precision RSD _r may be calculated as 0.66 times Precision RSD _R at the concentration of interest								

- The detection limits of the methods used are not stated as the precision values are given at the concentrations of interest;
 - The precision values are calculated from the Horwitz equation, i.e.: $RSD_R = 2^{(1-0.5logC)}$ Where:
- RSD_R is the relative standard deviation calculated from results generated under reproducibility conditions [(sR / x) x 100]
- C is the concentration ratio (i.e. 1 = 100g/100g, 0.001 = 1,000 mg/kg)

This is a generalized precision equation, which has been found to be independent of analyte and matrix but solely dependent on concentration for most routine methods of analysis.

- 29. For determination residues of identified pesticides for identified markets, adequate portion of homogenized prepared sample shall be taken for analysis from the same batch/lot as taken for a batch/lot/consignment for determination of aflatoxins.
- 30. Sampling kit, material and other information required for performing sampling:
 - SoP & work instructions issued by the lab to the individual authorized sampler of lab preferably in local language
 - Clean food grade containers, pouches, bags of appropriate capacity
 - Disposable hand gloves, mouth cover, head gear, shoe covers, etc.
 - Spears, scoops, perforated sampling spears, spreading sheet, disinfectant (all food grade)
 - Seal, sealing wax, thread, labels, clothe, tape, stapler, cutter, etc.
 - Laboratory seal with number and identification
 - Pre printed labels
- 31. The sampling record shall be maintained both by the unit and laboratory as follows:
 - Name of exporter, unit, processor
 - Lot/batch number
 - Date of sampling
 - Signature of laboratory field sampler drawing sample and authorized person of APEDA registered exporter/registered peanut unit.
- 32. Packaging and transmission of laboratory sample: The laboratory sample shall be placed in a clean, food grade container, which provides secure protection from contamination, damage and leakage. The container shall be sealed securely, labeled and the sampling record shall be attached.

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MAXIMUM LEVELS (MLs) OF AFLATOXIN IN PEANUTS & PEANUT PRODUCTS

(EU, Russian Federation, Japan, Korea, Malaysia, Indonesia, Thailand)

(a) MLs of aflatoxins shall not exceed the followings in their respective categories. Authorized laboratories shall analyze peanuts and peanut products for determination of aflatoxin levels for following categories:

Sl.	Product categories		s of aflatoxins
No.		μg/kg	
		B_1	*Sum of B ₁ +B ₂ +G ₁ +G ₂
(i)	Groundnuts (peanuts) and processed products thereof, intended for direct human consumption or as an ingredient in foodstuffs, with the exception of crude vegetable oils destined for refining and refined vegetable oils for exports to EU (maximum levels of aflatoxins in µg/kg related to a product with maximum moisture content of 7%).	2	4
(ii)	Groundnuts (peanuts) to be subjected to sorting or other physical treatment or further processing, before human consumption or use as an ingredient in foodstuffs with the exception of groundnuts (peanuts) for crushing for refined vegetable oil production for exports to EU (maximum levels of aflatoxins in µg/kg related to a product with maximum moisture content of 7%).	8	15
(iii)	Groundnuts (peanuts) as bird feed for exports to EU (maximum levels of aflatoxins in µg/kg related to a product with maximum moisture content of 7%)	20	20
(iv)	Groundnuts (peanuts) for exports to Russian Federation (maximum levels of aflatoxins in µg/kg related to a product with maximum moisture content of 7%)	5	-
(v)	Groundnuts (peanuts) for exports to Japan and Korea (maximum levels of aflatoxins in µg/kg related to a product with maximum moisture content of 7%)	10	10
(vi)	Groundnuts (peanuts) for exports to Malaysia, Indonesia** and countries following Codex MLs (maximum levels of aflatoxins in µg/kg related to a product with maximum moisture content of 7%)	-	15
(vii)	Groundnuts (peanuts) for exports to Thailand (maximum levels of aflatoxins in $\mu g/kg$ related to a product with maximum moisture content of 7%)	-	20

[^]Onus of providing information to APEDA on lower/higher levels of aflatoxins for exports of PPP to an importing country, as mentioned above shall be of the exporter for the purpose of advising the authorized laboratories. * Value of B_1 shall not exceed individually in sum of Total Aflatoxins.

Note:

(i) Groundnuts reporting aflatoxin levels of more than 2 μ g/kg for B₁ and more than 4 μ g/kg sum of B₁+B₂+G₁+G₂ in one representative analyte after taking into consideration recovery correction factor shall not qualify for category (i) export.

- (ii) Groundnuts reporting aflatoxin levels of more than 8 μ g/kg for B₁ and more than 15 μ g/kg sum of B₁+B₂+G₁+G₂ in one representative analyte after taking into consideration recovery correction factor shall not qualify for category (ii) export.
- (iii) Groundnuts reporting aflatoxin levels of more than 20 μ g/kg for B₁ and more than 20 μ g/kg sum of B₁+B₂+G₁+G₂ in one representative analyte after taking into consideration recovery correction factor shall not qualify for category (iii) export.
- (iv) Groundnuts reporting aflatoxin levels of more than 5 μ g/kg for B_1 in one representative analyte after taking into consideration recovery correction factor shall not qualify for category (iv) export.
- (v) Groundnuts reporting aflatoxin levels of more than 10 μ g/kg for B₁ and more than 10 μ g/kg sum of B₁+B₂+G₁+G₂ in one representative analyte after taking into consideration recovery correction factor shall not qualify for category (v) export.
- (vi) Groundnuts reporting aflatoxin levels of more than 15 μ g/kg sum of $B_1+B_2+G_1+G_2$ in one representative analyte after taking into consideration recovery correction factor shall not qualify for category (vi) export.
- (vii) Groundnuts reporting aflatoxin levels of more than 20 μ g/kg sum of $B_1+B_2+G_1+G_2$ in one representative analyte after taking into consideration recovery correction factor shall not qualify for category (vii) export.
- **(b) In case of peanut consignments meant for exports to Indonesia, in addition to total Aflatoxins, following agrochemicals shall also be analyzed for their MRLs. Separate analysis certificate shall be issued by the authorized labs for residues of agrochemicals with their determined value.

Sr.No.	Name of Agrochemical	MRL mg/kg.
1.	Aldicarb	0.02
2.	Carbendazim	0.1
3.	Chlorothalonil	0.05
4.	Clethodim	5
5.	Cypermethrin	0.05
6.	Disulfoton	0.1
7.	Fenamiphos	0.05
8.	Metalaxyl	0.1
9.	Oxamyl	0.05
10.	Permethrin	0.1
11.	Propargite	0.1
12.	Pyrethrins	0.5
13.	Quintozene	0.5
14.	Tebuconazole	0.05

CERTIFICATE OF ANALYSIS

(Issued from Peanut.Net software)

(i) General Details

1	Lab Test Certificate No.
2	Certificate date
3	Name & Address of the exporter
4	APEDA RCMC No. of the exporter and validity
5	Name & Address of the storage/godown of PPP processing
	units, integrated peanut processing units, peanut shelling
	units, peanut grading units and peanut shelling-cum-
	grading units from where sample to be drawn
6	APEDA Registration No. of the storage/godown unit from
	where sample drawn and validity
7	Type of commodity
8	Method of sampling followed
9	Country of exports (please refer sample slip)
10	Consignment Details:
	Lot No.
	Number of bags/packages
	Quantity (MT)/container
	Date of sealing
	Seal No.

(ii)	T4 D-4-11-	(T4-4-1-4-	T4 1 1-4-	`
(11)	Test Details	(Test start date	Test end date	1
111/	1 CSt DCtails	(I cst start date	i est end date	,

Sr. No	Test parameter	Aflatoxin *levels & moisture % age for which sample analyzed	Equip ment and detect ors used	Limit of Quantifica tion (LoQ)	Method of analysis	Aflatoxin level & moisture found after applying recovery correction factor	Uncertainty measurement (±)	Recovery %age
1	2	3	4	5	6	7	8	9
(a)	Aflatoxin B ₁							
	Total Aflatoxin B ₁ +B ₂ +G ₁ +G ₂							
(b)	Aflatoxin B ₁							
	Total Aflatoxin B ₁ +B ₂ +G ₁ +G ₂							
(c)	Moisture! Content							

^{*} Aflatoxins value in µg/kg

[!] Moisture value in %age

CERTIFICATE

- 1. This is to certify that the PPP sample pertaining to the above consignment was drawn by our authorized sampler from the APEDA registered PPP storage/godown of PPP processing unit, integrated peanut processing unit, peanut shelling unit, peanut grading unit, peanut shelling-cumgrading unit, having APEDA Registration No.____ and has been analysed by us for the intended use mentioned on the sample slip. The sample was tested for the aflatoxin levels and the moisture %age in the sample is given in the above table.
- 2. The primary samples were drawn from ... bags weighing... kg. per bag from thequantity/container load presented/selected as per the method of sampling. The drawn sample was thoroughly mixed and made up into composite samples. We shall retain one sealed sample for a period of 180 days from the date of sampling.
- 3. The APEDA recognition of this laboratory is valid as on date of analysis report.
- 4. **Result** On the date of issue of this certificate, the above sample conforms/does not conform (*strike out whichever is not applicable*) for the following intended use:

(i)	Groundnuts (peanuts) and processed products thereof, intended for direct human	
	consumption or as an ingredient in foodstuffs, with the exception of crude	
	vegetable oils destined for refining and refined vegetable oils for exports to EU	
(ii)	Groundnuts (peanuts) to be subjected to sorting or other physical treatment or	
	further processing, before human consumption or use as an ingredient in	
	foodstuffs with the exception of groundnuts (peanuts) for crushing for refined	
	vegetable oil production for exports to EU	
(iii)	Groundnuts (peanuts) as bird feed for exports to EU	
(iv)	Groundnuts (peanuts) for exports to Russian Federation	
(v)	Groundnuts (peanuts) for exports to Japan and Korea	
(vi)	Groundnuts (peanuts) for exports to Malaysia & Indonesia	
(vii)	Groundnuts (peanuts) for exports to Thailand	
(viii)	Groundnuts (peanuts) and groundnut products for exports to (name of	
	the country)	

- 5. This certificate is not valid if the seal numbers indicated above do not match with the seal numbers on the bags/packages/lots/pallet or if the seals are tampered.
- 6. Our analytical findings reflect the quality of the sample at the time of sampling. No responsibility can be expected for the possible consequences of further development of Aflatoxin, which may depend upon storage, handling and weather conditions that may influence the results at a later date/time.

Date: Place:	Seal	Signature of authorized signatory of Authorized Laboratory
Place:	Sear	Authorized Laboratory

INTERNAL ALERT INFORMATION

(TO BE ISSUED BY NATIONAL REFERRAL LABORATORY)

National Research Center for Grapes (NRCG) Pune 412 307

Tel.: +91-20-26956002, EPABX: +91-20-26956000 Fax: +91-20-26956099

Email: dirnrcg@gmail.com; dirnrcg@icar.org.in; nrcgrapes@gmail.com; apedanrl@gmail.com

Alert I	nformation No		Original		
Sub: De	etection of aflatoxins beyond permi	ssible levels	Page:	No of	_Pages
1.	Name of processing unit/exporter	:			
2.	APEDA RCMC No. of exporter				
	(a) Peanut processing unit	:			
	(b) Integrated peanut processing unit	:			
	(c) Peanut shelling unit	:			
	(d) Peanut grading unit	:			
	(e) Peanut shelling-cum-grading unit	:			
	(f) Peanuts storage warehouse unit	:			
3.	Code Number of the produce, if any	:			
4.	Date of processing	:			
5.	Date of sampling	:			
6.	Place of sampling		nut processing unit		
			grated peanut proc	essing unit	
			nut shelling unit		
			nut grading unit	11 14	
			nut shelling-cum-g		
-	D	Pear	nuts godown/stora	ge unit	
7.	Date of analysis	:			
8.	Findings of the analysis				
9.	Recommendations by National Referra	l Laboratory			
Date:		Signature o	f the Authorized		
Place:		•	f the National Ref	erral Labora	itory
Copies t	0:	S			
	cerned unit/exporter				
	authorized laboratories				
3. APE	ZDA				

CERTIFICATE OF CONTAINER STUFFING/LOADING

This is to certify that the consignment of peanuts and peanut products with the following details has been stuffed/loaded into the container for export to _____ (country name).

1	Container stuffing/loading Certificate No. and date	
2	Validity of the certificate	
3	Name & Address of the exporter	
4	Country of exports	
5	Invoice No. & date	
6	Commodity (tick whichever is applicable)	
(i)	Groundnuts (peanuts) and processed products thereof, intended for direct human consumption or as an ingredient in foodstuffs, with the exception of crude vegetable oils destined for refining and refined vegetable oils for exports to EU;	
(ii)	Groundnuts (peanuts) to be subjected to sorting or other physical treatment or further processing, before human consumption or use as an ingredient in foodstuffs with the exception of groundnuts (peanuts) for crushing for refined vegetable oil production for exports to EU;	
(iii)	Groundnuts (peanuts) as bird feed for exports to EU;	
(iv)	Groundnuts (peanuts) for exports to Russian Federation;	
(v)	Groundnuts (peanuts) for exports to Japan and Korea;	
(vi)	Groundnuts (peanuts) for exports to Malaysia, Indonesia and countries following Codex MLs;	
(vii)	Groundnuts (peanuts) for exports to Thailand	
(viii)	Groundnuts (peanuts) and groundnut products for exports to any other country (name of country)	
7	Details of consignment:	
	Lot No.	
	Number of bags/ packages Opentity (MT)/container (grass)	
	Quantity (MT)/container (gross) Date of sealing	
	Seal No.	
8	Grade and variety of the produce	
9	Date of stuffing/loading into the container	
	- are or presenting/roughing mito the collimited	

10	Address where stuffing/loading carried out	
11	Port of discharge	
12	Country of final destination	
13	Seal No. of the container	
14	Lab Test Certificate No. date and validity	
15	Fumigation details with date of fumigation, if required	

CERTIFICATE

- 1. It is certified that stuffing/loading of the packages/bags/pallets of the above consignment has been carried out at the place of sampling. In case of shifting/relocation of the goods has taken place, it is with the prior consent of this laboratory.
- 2. The seal numbers of the bags are the same as those at the time of sampling.
- 3. Stuffing/loading of peanuts and peanut products into the containers has been carried out under the supervision of the authorized official of this laboratory.
- 4. It is certified that after stuffing/loading, the authorized official of this laboratory has sealed the container.
- 5. It is verified that the Certificate of Export issued by APEDA has allowed the shipment of the consignment of peanuts and peanut products the details of which are given above.
- 6. To prevent sweating and condensation the exporter has placed suitable moisture observer in the container.

Date: Place:	Seal	Signature of authorized signatory of Authorized Laboratory

FORMAT OF DECLARATION (TO BE GIVEN BY THE EXPORTER ON THEIR LETTERHEAD TO THE PSC ISSUING AUTHORITY)

1)	I, resident of,have/operate from PPP unit having APEDA Registration of unit No dated valid up to and which is located at the following address:
2)	I/We, hereby, certify that MTs of PPP have been processed/procured for export from APEDA Registration of unit No dated valid up toand which is located at the following address:
	a) renewed on b) renewed on c) renewed on etc.
3)	The laboratory analysis reports bearing No datedpertains to the PPP quantities referred to in para (2) above.
4)	I/We propose to effect export of the PPP referred to above to (destination) and these have been processed and packed under my supervision in the registered unit referred to in para (1) above.
5)	I/We certify that the PPP referred to above are contained in number of bags/packs and that the laboratory analysis report establishes that the PPP do not contain exceeding MLs of aflatoxins with respect to the destination, referred to in para (4) above, stated in Annexure - IV of the "Procedures for Export of Peanuts and peanut products".
6)	I/We certify that I/we have satisfied my/ourselves that the relevant Regulations of the importing countries as on date as regards the product quality, quarantine and food safety concerns have been complied with in respect of the PPP referred to above.
7)	I/We certify that I/we have verified the registration records from where PPP have been sourced for this consignment and that the PPP fulfills the procedure laid down in the "Procedures for Export of Peanuts and peanut products".
8)	I/We certify that the consignment covered by this declaration does not contain PPP from unregistered PPP units whose registration has been cancelled/suspended or units that have not cleared registration.
9)	I/We certify that, as on this date, the NRL has not issued any Internal Alert Information in respect of the samples drawn by them from the PPP unit (referred to in para - 1 above). OR
	It is certified that the NRL had issued an alert for PPP Registration Novide Internal Alert Information No and, subsequently, the same has been revoked vide their Notification No after re-sampling.(strike out whichever is not applicable)
10)	I/We certify that the inspection of the above consignment has been carried out by(name of laboratory) inspection No pertains to the above consignment.
11)	I/We certify that the above information/declaration is true and correct.
Date: Place:	Signature of Authorized Signatory of Exporter/PPP unit Name and address

GUIDELINES FOR DEALING WITH REJECTIONS AND COMPLAINTS

Latest SoP for handling RASFF, rejection and complainants in place shall be applicable in case of Peanuts and Peanut Products.

Part-I Action by QC

- 1 Download; carry out preliminary assessment of each rapid alert, rejection and complaint and upload in RASFF software.
- 2 Send system generated show cause notice to concerned exporter, involved unit advising stop export of non complying products with a copy to product division to enable the exporter to upload explanation within 15 days.
- 3 Send system generated show cause notice to laboratory to stop sampling and analysis of concerned product to upload explanation within 10 days.
- 4 Assess explanation of laboratory. In the event of unsatisfactory report, action against laboratory including temporary suspension of lab for specific product under monitoring at first incidence.
- 5 Update final action taken against involved laboratory within 15 days of system generated show cause.
- 6 Inform to C&I to disable access of laboratory to system for specific product.
- 7 Update importing country's portal with a copy to DoC based on action taken updated by product division(s) against concerned exporter, involved unit and action taken against lab.

Part-II Action by Respective Product Division

(a) On first rapid alert, rejection and complaint:

- 8 Assess explanation of exporter, involved unit for updating action taken report in RASFF software.
- 9 In the event of unsatisfactory explanation within specified period from date of system generated show cause and warning, initiate appropriate action against exporter, unit which includes temporary suspension of exporter, unit, refusal of RCAC, COE and suspension of recognition for specific product to specific market.
- 10 Update final conclusive action taken against exporter, involved unit within 21 days of system generated show cause and warning in RASFF software.
- 11 In case exporter non-identifiable, not registered by APEDA, obtain offline feedback from concerned association and Regional Office within 21 days and update action taken in RASFF software.

(b) On second rapid alert, rejection and complaint:

- 12 Imposition of temporary suspension of exporter, unit even on same date of same product of same exporter, involved unit within 7 days of uploading in RASFF software until appropriate corrective action.
- 13 Decision on allowing exporter, unit to undertake export to other country whose standard is relaxed than the country that raised rapid alert, rejection and complaint.
- 14 Issuance of RCAC, COE and other certificate to the exporter and unit to other countries would be subject to ensuring that the rejected product shall not be re-routed, mixed in food chain and reshipped to the country and region whose standard was not met earlier.
- 15 Inform C&I to disable concerned exporter, unit in system for specific country and region so that they are not able to create consignment.
- 16 Inform to Director, Enforcement, FSSAI wherever NOC issued for import of rejected consignment.

(c) On third rapid alert, rejection and complaint onwards:

- 17 Initiate suspension of RCMC of exporter and suspension of unit on third rapid alert, rejection and complaint even on same date of same product of the same exporter and unit.
- 18 Restore RCMC, unit registration after verifying satisfactory implementation of corrective action by the exporter, unit.
- (d) **General:** Applicable periodicity would be weekly, monthly, quarterly, half yearly & calendar year.

FORMAT OF APPLICATION TO OBTAIN NOC FOR REJECTED CONSIGNMENTS

The exporters on receipt of rejection/complaint intimation from APEDA shall submit the following information for obtaining NOC to import the rejected consignment(s) of PPP to APEDA.

1	Reason of rejection of consignment	
2	Name & Address of the exporter	
3	Name & Address of importer and country of imports	
4	APEDA RCMC No. and validity	
5	Laboratory analysis certificate No. and date	
6	Certificate of Export No. and date	
7	Container stuffing certificate No. and date	
8	Invoice No. & date of consignment	
9	B/L No. & date of the rejected consignment	
10	Commodity exported under the category (tick whichever is applicable)	
(i)	Groundnuts (peanuts) and processed products thereof, intended for direct human consumption or as an ingredient in foodstuffs, with the exception of crude vegetable oils destined for refining and refined Groundnuts (peanuts) and processed products thereof, intended for direct human consumption or as an ingredient in foodstuffs, with the exception of crude vegetable oils destined for refining and refined vegetable oils for exports to EU;	
(ii)	Groundnuts (peanuts) to be subjected to sorting or other physical treatment or further processing, before human consumption or use as an ingredient in foodstuffs with the exception of groundnuts (peanuts) for crushing for refined vegetable oil production for exports to EU;	
(iii)	Groundnuts (peanuts) as bird feed for exports to EU;	
(iv)	Groundnuts (peanuts) for exports to Russian Federation;	
(v)	Groundnuts (peanuts) for exports to Japan and Korea;	
(vi)	Groundnuts (peanuts) for exports to Malaysia, Indonesia and countries following Codex MLs;	
(vii)	Groundnuts (peanuts) for exports to Thailand	
(viii)	Groundnuts (peanuts) and groundnut products for exports to any other country (name of country)	

11	Details of consignment at the time of exports:
	Lot No. Number of bags/ packages Quantity (MT)/container (gross) Date of sealing Seal No.
12	Grade and variety of the produce
13	Port of imports
14	Country and port of exports
15	Likely date of arrival of rejected consignment in Indian port
16	Usage of the produce

Date: Signature of Exporter Place: (Name of Exporter)

CERTIFICATE

This is to certify that, the above information is correct to the best of my/our knowledge. On arrival of the rejected consignment in any border post of India, I/we undertake to follow the procedure for dealing with rejected consignments as established in this document and shall not undertake exports until having establishing appropriate food safety compliance as per the requirements of the importing country. I/we shall intimate to APEDA on arrival of the rejected consignment in Indian border post.

Date: Signature of Exporter Place: (Name of Exporter)

UNDERTAKING

- 1. I/we undertake to inform to APEDA as soon as the rejected consignment arrives and shall allow drawl of samples as per procedure given in Annexure-III of this document at my own cost.
- 2. In case the produce or any batch of the produce of the consignment fails to aflatoxins levels of Indian national standards, I/we shall be responsible for destruction of the imported consignment.
- 3. I/we agree that in case I/we fail to comply with the procedure given in Annexure-XII of this document, APEDA may decide to deny issue of Certificate of Exports as well as subsequent NOC to import the rejected consignment and take any other action as deemed fit.

Date:	Signature of Exporter
Place:	(Name of Exporter)

Appendix-A

FORMAT OF HEALTH CERTIFICATE FOR EXPORTS OF PEANUTS AND PEANUT PRODUCTS TO EU(*) Consignment Code Certificate Number According to the provisions of Commission implementing Regulation (EU) No. 884/2014 imposing specific conditions governing the import of certain feed and food from certain third countries due to contamination risk by aflatoxins and repealing Regulations (EC) No. 1152/2009, the of this consignment composed of (description of consignment, product, number and type of packages, gross or net weight) by (identification of transporter) which comes from the establishment. have been produced, sorted, handled, processed, packaged and transported in line with good hygiene practices. From this consignment, samples were taken in accordance with the Union legislation Commission Regulation (EC) No. 152/2009 Commission Regulation (EC) No.401/2006

This certificate is valid until.

Done aton.

Stamp and signature of Authorized representative of competent authority referred to in Article 5(2) of Regulation

^(*) Product and country of origin.

FORMAT OF HEALTH CERTIFICATE FOR EXPORTS OF PEANUTS AND PEANUT PRODUCTS TO MALAYSIA

Guidelines for design, production, issuance and use of generic official certificates (CAC/GL 38-2001)

LOGO/LETTERHEAD GENERIC MODEL OFFICIAL CERTIFICATE

COUNTRY: CERTIFICATE TYPE

1. Co	nsignor/Exporter :	2. Certifica	te numbe	er:				
		3. Compete	nt Autho	rity:				
		4. Certifyin	g body:					
5. Co	onsignee/Importer :							
6. Co	ountry of origin :				ISO code:			
7. Co	ountry of destination:				ISO code:			
	ace of loading:							
9. Me	eans of transport :		10. De	clared	point of entry	:		
11. Co	onditions for transport/storage:		12. Tota	al quai	ntity*:			
13. Id	lentification of container(s) Seal 1	Number(s):	14. Tot	tal nun	nber of packag	es:		
15. Id	entification of food products as de	escribed belo	w (multip	ole line	es may be used	for m	ultiple produc	ets)
No.	Nature of the food, commodit where appropriate	y code (HS co	ode)	Spec	cies*		Intended pur	rpose
No.	Producer/Manufacturer	Approval nu	ımber of	establi	ishments*	Regi	on or compar	tment of origin
No.	Name of the product	Lot Identifie	er*	Type	of packaging	No. o	of Packages	Net weight
	<u> </u>							
excee	Attestations: This is to certify that ding the maximum permitted le mption. This is based on inspecti	vel allowed	by the M	Ialaysi	ian Food Regu	ılation		
17: Ce	ertifying officer:							
Name	:			Of	ficial position :			
Date :				Si	gnature :			
Offici	al Stamp:							

The generic model official certificate should be read in conjunction with the explanatory notes.

*If required

Format of Certificate of Quality for exports of PPP to Russian Federation

Organization issuing certificate	
Dated " 200	
Normative document	
Point of Loading	
Destination	Consigna
Bill of Lading No	Contract No
Weight, Kg	NII
Name of the Milling Plant	Year of harvest
Transport facility	
(Vessel, its name, container No)	Month & Year of Processing
Type	
	Foreign matter, %
Smell	
	organic (summary), %
Insect infestation, exe/kg	Cultivated and plant wild seeds, %
	Oil-bearing crops admixture, %
	including broken, corroded
	and germinated, %
	and germinated, %
Conformation of compliance to the safe	
Conformation of compliance to the safe	ety requirements
•	
•	ety requirements
•	ety requirements
	ety requirements
	ety requirements
	ety requirements
Special notes Head of laboratory or authorized person	ety requirements n's signature
Special notes Head of laboratory or authorized person	ety requirements n's signature
Special notes Head of laboratory or authorized person	ety requirements n's signature
Special notes Head of laboratory or authorized person	ety requirements n's signature
Special notes Head of laboratory or authorized persor	n's signature (Signature) (Name) Stamp place
Special notes Head of laboratory or authorized persor	n's signature (Signature) (Name) Stamp place Impanied by Appendix to the Groundnut Certificate of

N.B.: In case of changes of regulations declaring the safety and quality parameters of groundnut, appropriate changes may be made in this document.

Attachment to the Groundnut Quality Cert	ificate No	_Dated "	 200
Purpose of analysis: safety requirements conformity Name of product:	y assessment		
Result of testing: Protocol of testing No	Dated		

No.	Testing	Units	Actual contains of toxic	Maximum permissible	Deter-	
			matters in rice	level of toxic matters in	mination	
				groundnuts in accordance		
1	Destables	N (- /1		with Russian legislation)		
1.	Pesticides	Mg/kg		0.7		
1.1	Hexachlorocyclohexane (α , β , γ - isomers)			0,5		
1.2	DDT and its metabolites			0,15		
1.3	Hexachlorbenzol			0,01		
1.4	Quicksilver-organic pesticides			*Not Allowed		
1.5.	2,4 – D Acid its salt and ether			*Not Allowed		
1.6	Phenitrothion			0,1		
2.	Mycotoxins	Mg/kg				
2.1.	Aflatoxin B1			0,005		
3.	Radionuclides	Bq/kg	According to the letter No AERB/VC/76/2008-14 dt. 3.1.2008 from Atomic Energy Regulatory Board, Govt. of India regarding radio nuclides.			
3.1	Caesium-137			70		
3.2	Strontium-90			90		
4.	Toxic elements	Mg/kg				
4.1	Lead			1,0		
4.2	Arsenic			0,3		
4.3	Cadmium			0,1		
4.4	Quicksilver			0,05		
5.	Information about GMO components contain	According to the letter No. 16/3/2006-CS-II dated 4.12.2007 from Ministry of Environment & Forests, Government of India "no GM crops				
6.	Information about pesticides treatment during growing, storage and date of last treatment	Specify		on in india".		
7.	Other safety characteristics	Specify	,			

* Please state the Limit of Detection (LOD).		
Head of laboratory or authorized person's signature		
	(Signature)	(Name)
Stamp place NB: This Attachment is not valid without Certifi	anto of quality	
ND. This Attachment is not valid without Certiff	cale of quality.	

* * * * * * *