(Amendment-III dated 09.01.2013)
Trade Notice No: APEDA/PPP/Q/2011 Dated: 27.06.2011
(Amendment-I dated 08.08.2011 & Amendment-II dated 07.08.2012)

REGULATION OF EXPORT OF

PEANUTS AND PEANUT PRODUCTS

THROUGH CONTROL OF

AFLATOXINS

Agricultural and Processed Food Products
Export Development Authority
3rd Floor, NCUI Building, 3 Siri Institutional Area,
August Kranti Marg, Hauz Khas, New Delhi 110 016
Tel: 26534175, Fax: 26519259 E-mail: agmqc@apeda.gov.in

(Amendment-III dated 09.01.2013)
Trade Notice No: Apeda/PPP/Q/2011 Date: 27.06.2011

REGULATION OF EXPORT OF PEANUTS AND PEANUT PRODUCTS THROUGH CONTROL OF AFLATOXINS

Background

Higher levels of aflatoxins in groundnuts have been major concern of the importing countries. Therefore, it is essential to establish adequate controls to minimize possibilities of presence of the aflatoxins in groundnuts in excess of prescribed levels. As per the powers conferred by the Government of India, Ministry of Commerce and 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 and amendments thereof. Export of groundnuts (peanuts) permitted subject to compulsory registration of contracts with APEDA, alongwith controlled aflatoxins level certificate given by the laboratories authorized by APEDA. APEDA nominates Indian Oilseeds and Produce Export Promotion Council (IOPEPC) to implement the following procedures:

1.	Objectives	1.1	To establish a system for controlling aflatoxin levels in all peanuts and peanut products (hereinafter called PPP) in this document.
		1.2	To establish a system of appropriate labeling in each bag/ package/lot/pallet of PPP for exports.
		1.3	To ensure that PPP exported from India do not test for aflatoxin in excess of the prescribed levels.
		1.4	To facilitate web-based traceability through PeanutNet 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 recognized processing units, integrated peanut processing units, peanut shelling units, peanut grading units, peanut shelling-cum-grading units, peanuts godowns/storage warehouses, authorized laboratories for drawls of samples and testing of aflatoxins in PPP, National Referral Laboratory shall get covered under this document.
		2.2	This document applies to export of PPP to all countries except Russia. The exporters shall comply with aflatoxin levels of importing countries.
		2.3	For the purposes of specific compliance requirements of aflatoxin contents in PPP, European Union includes countries such as Austria, Belgium, Bulgaria, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden and United Kingdom as well as other countries following EU food safety norms.

<table>
<tr><td></td><td></td><td>2.4</td><td>The following categories of peanut and peanut products for exports shall be covered under this procedure:

(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%)

(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%)

(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%)

(iv) Groundnuts (peanuts) for exports to Japan & Korea (maximum levels of aflatoxins in μg/kg related to a product with maximum moisture content of 7%)

(v) Groundnuts (peanuts) for exports to countries other than EU (maximum levels of aflatoxins in μg/kg related to a product with maximum moisture content of 7%)</td></tr>
<tr><td></td><td></td><td>2.5</td><td>The exporters shall label/mark and declare intended use of the products as per above categories.</td></tr>
<tr><td></td><td></td><td>2.6</td><td>Following Tariff items HS codes and description pertaining to PPP shall cover under the scope of this document:

<table>
<tr><td>Tariff Item HS Code</td><td>Item description</td></tr>
<tr><td>12021000</td><td>Groundnuts (peanuts) and their products including in-shell</td></tr>
<tr><td>12021010</td><td>Groundnuts (of seed Quality)</td></tr>
<tr><td>12021019</td><td>Groundnuts (Other)</td></tr>
<tr><td>12021091</td><td>Groundnuts (Other of Seed Quality)</td></tr>
<tr><td>12021099</td><td>Groundnuts (Other)</td></tr>
<tr><td>12022010</td><td>Groundnuts (Kernels, HPS)</td></tr>
<tr><td>12022090</td><td>Groundnuts (Other)</td></tr>
<tr><td>20081100</td><td>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.</td></tr>
</table>
</td></tr>
</table>

		2.7	For exports of peanuts and peanut products to Russian Federation, certain agreed formats based on negotiation are to be complied with; hence this document does not cover export procedures to Russian Federation.
3.	Procedure for recognition of peanut processing units, integrated processing units, shelling units, grading units, shelling-cum-grading units, godowns/storage	3.1	All exporters of peanut and peanut products processing units, integrated peanut processing units, peanut shelling units, peanut grading units, peanut shelling-cum-grading units, peanuts godowns/storage shall be registered with IOPEPC as per the laid down procedure.
		3.2	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 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 IOPEPC.
		3.3	PPP shall be allowed for exports for all categories from IOPEPC recognized facilities.
		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 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 implement and obtain relevant certification of GAP, HACCP, food safety management system from APEDA recognized agencies.
		3.5	All PPP processing units, integrated peanut processing units, peanut shelling units, peanut grading units and peanut shelling-cum-grading units peanut processing 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.
4.	Procedure for sampling analysis and export of PPP	4.1	PPP meant for exports shall be subject to issuance of Certificate of Exports by IOPEPC.
		4.2	All Exporters/IOPEPC recognised PPP processing units, integrated peanut processing units, peanut shelling units, peanut grading units, peanut shelling-cum-grading units shall apply to authorized laboratories for drawl and testing of PPP samples for aflatoxins as per the format of sample slip given in **Annexure-I.**

		4.3	Sampling of PPP for all categories shall be carried out only at the finished product storage/godown of the PPP processing units, integrated peanut processing units, peanut shelling units, peanut grading units, peanut shelling-cum-grading units. All the facilities where sampling is done shall be recognized by IOPEPC as per the laid down procedures referred in (para 3.2) above.
		4.4	A list of authorized laboratories is given in **Annexure-II.** All authorized laboratories shall draw samples for analysis of PPP as per the method of sampling given in EU regulations for EU and Codex guidelines for countries other than EU as given in **Annexure-III** as follows: (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 feed stuffs meant for export to EU countries except UK for category (iii), Commission Regulation (EC) No. 152/2009 of 27 January 2009. (iii) For consignments of PPP for feed stuffs meant for exports to UK, for category (iii), Feeding Stuffs (England) UK, Regulations 2010, statutory instrument 2010 No.2280, feed procedure and testing of feed (sampling & analysis) http://www.opsi.gov.uk. For consignments of PPP meant for exports to the countries other than EU for category (iv) and (v) the method of sampling and analysis 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/IOPEPC shall obtain and pass on the method to APEDA for validation by NRL.
		4.5	All the authorized laboratories shall analyze samples of PPP for the levels of aflatoxin as given in **Annexure-IV** for consignments destined to EU for categories (i), (ii) and (iii) based on Commission Regulation (EU) No 165/2010 of 26.02.2010 amending Regulation (EC) No. 1881/2006 setting maximum levels for certain contaminants in foodstuffs as regards aflatoxins, Commission Regulation (EC) No 2174/2003 of 12.12.2003 laying down maximum levels of mycotoxins in groundnuts and Directive 2003/100/EC dated 31.10.2003 respectively. For consignments destined to countries other than EU for category (iv) & (v) Codex guidelines shall be followed. In case of lower levels of aflatoxins than the Codex guidelines to be complied with for exports to an importing country, the exporter shall intimate the same levels to APEDA through IOPEPC for the purpose of advising to the authorized laboratories.

		4.6	In case the consignment intended for export falls in category (iii) of para 2.3, each bag/package must be printed with the words, "Peanuts for bird feed only". The printing ink to be used shall be food grade.
		4.7	After drawl of the samples, the representative 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 in case of categories (i), (ii), (iii) (iv) and (v) as given in para 2.4 above. In case of bulk-in-container, in case of categories (iv) and (v) the container shall also be sealed. The PPP meant for exports for category (i), (ii) and (iii) shall not be in bulk containers.
		4.8	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.
		4.9	The authorized laboratories shall test PPP for determination of Aflatoxin contents 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 countries laying down the methods of sampling and analysis for control of aflatoxins.
		4.10	The authorized laboratories shall issue certificate of analysis to the exporter/processing unit as per the format given in **Annexure-V**. The laboratory shall declare that the sampling has been done in the IOPEPC recognized PPP processing unit, integrated peanut processing unit, peanut shelling unit, peanut grading unit, peanut shelling-cum-grading unit, peanuts godowns/storage.
		4.11	Exporters/processing units shall not export PPP, samples of which do not conform to laboratory test.
		4.12	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, IOPEPC, APEDA along with a copy of the test report giving details of the exporters and the aflatoxin levels. In case of failed samples the laboratories shall send the chromatograms, etc. to the NRL and exporter by email/speed-post/courier.
		4.13	All exporters/recognized processing units of PPP shall apply to IOPEPC for issue of "Certificate of Export" in format given in Annexure-VI along with processing fee of Rs. 40 per MT + applicable statutory levies in favour of IOPEPC.

		4.14	The Certificate of Export for export of PPP shall be issued by IOPEPC only if the Certificate of Analysis indicates that the Aflatoxin level in the sample is within the prescribed limits.
		4.15	Stuffing/loading of the containers shall be carried out after issue of the Certificate of Exports. To prevent sweating and condensation, 30 kg silica gel shall be spread on the space above the top layers of the bags and the roof of the container as well as 30 kg silica gel spreaded through the cargo. An advise to shipping line shall be given by the 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.
		4.16	The loading/stuffing of PPP in the container for shipment purpose shall be done under the supervision of the concerned laboratory at the same premises where the sampling was carried out.
		4.17	With regard to failed samples, the processor/exporter shall not export consignment and shall initiate necessary corrective action.
		4.18	It would be mandatory that all PPP consignments meant for export to the EU will compulsorily be vacuum packed only and no other type of packing will be used during the current financial year. This decision would be reviewed based on the information generated on Rapid Alerts. The sampling will be done in gunny bags and after clearance from the laboratory, the consignment will be vacuum packed under the supervision of the authorized laboratory.
5.	Recognition & responsibility of Authorized Laboratories	5.1	All the authorized laboratories shall be ISO/IEC-17025 accredited by National Accreditation Board for Testing and Calibration Laboratories (NABL) alongwith scope of testing for aflatoxins.
		5.2	All the authorized laboratories shall have APEDA recognition under its scheme for laboratory recognition.
		5.3	The authorized laboratories shall develop and validate method of sampling and analysis of PPP to comply with the procedure.
		5.4	The authorized laboratories shall submit a monthly statement of samples tested and containers stuffed/loaded to the IOPEPC and NRL as per form given in **Annexure-VII**.
		5.5	While sending/emailing the test report to the exporter/PPP unit, the authorized laboratories shall email copy of test reports issued by them to NRL alongwith copy of chromatogram.
		5.6	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. The NRL shall analyze these samples and maintain report and their findings as per the format given in Annexure-V.
		6.4	NRL shall submit to IOPEPC a quarterly statement of consolidated test reports received from the authorized laboratories as per **Annexure-VIII** along with a complete 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 IOPEPC and 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/inter-laboratory 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-IX**. This alert shall be issued without any delay. It will advise the exporters, IOPEPC and authorized laboratories about the control measures required to be taken.
		6.11	In case, the samples on re-testing 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 an 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.
		7.3	The NRL shall recommend to APEDA and/or NABL, derecognition of authorized laboratories in the event of non-compliance with the method of sampling and analysis of PPP.
		7.4	The NRL shall have the authority to inspect/audit the authorized laboratories and their analysis records without prior notice.
8.	Functions of IOPEPC	8.1	On receipt of applications, IOPEPC shall receive 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 IOPEPC recognition, where applicable.
		8.2	In case any amendment(s) in the Certificate of Export is/are required, the processor/exporter will apply to IOPEPC 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.
		8.3	On receipt of laboratory test reports of failed samples (para 4.12) from the laboratories, IOPEPC shall immediately advise the concerned processors/exporters not to effect shipment and also take necessary corrective steps. IOPEPC shall ensure that no "Certificates of Exports" are issued in respect of PPP covered by such test reports.
		8.4	IOPEPC shall submit to APEDA, a monthly statement of contract registered for exports of PPP by the 15th of the following month.
		8.5	IOPEPC shall organize training/awareness programmes for the farmers and processors for control of aflatoxins and improvement in hygiene.
		8.6	IOPEPC shall update itself with respect to amendments pertaining to the aflatoxin levels of the importing countries and keep the industry, laboratories, NRL and APEDA informed of such changes. The exporters also keep themselves aware of the changes made by the importing countries regulations on aflatoxins in PPP and inform to IOPEPC/NRL/APEDA.

		8.7	Onus of providing information on lower/higher levels of aflatoxins for exports of PPP to an importing country, as mentioned at Category (v) shall be on IOPEPC. IOPEPC shall obtain and submit this information to APEDA for the purpose of advising to the authorized laboratories.
9.	Functions of APEDA	9.1	APEDA shall monitor functioning of IOPEPC, authorized laboratories, etc. from time to time.
		9.2	Where necessary, APEDA shall nominate a Committee consisting of representatives of APEDA, IOPEPC, NRL, State Government, DGR & designated labs to ascertain the veracity of an issue/ document or for any other purpose in the interest of PPP exports.
10	Procedure for issuance of Certificate of Exports	10.1	Certificate of Exports shall be issued to the applicant exporter/ processor by IOPEPC in the format as given in **Annexure-X.**
		10.2	After loading/stuffing of the container, the laboratory shall provide a Container Stuffing/Loading Certificate to the shipper in the format given in **Annexure-XI**.
		10.3	Certificate of exports shall be issued by IOPEPC 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 recognized by IOPEPC with recognition number.
		10.4	One Certificate of Exports and Container Stuffing/Loading Certificate to the shipper shall be specific to one container load of PPP. Validity shall be mentioned in these certificates.
11	Procedure for dealing with PPP RASFF and rejections	11.1	IOPEPC shall implement procedure for dealing with RASFF and rejection as given in **Annexure-XII**.
		11.2	The exporters shall apply to IOPEPC for obtaining No objection Certificate (NOC) in the format as given in **Annexure-XIII**.
		11.3	IOPEPC shall evaluate the application and take a decision to forward the application with their recommendations to APEDA for issue of NOC for import of the rejected consignment(s).
		11.4	On issue of an NOC by APEDA to import the rejected consignment, a copy of the NOC shall be submitted to FSSAI alongwith details of the rejected consignment.
		11.5	Reimported consignments of PPP, which also exceeds domestic levels of aflatoxins, shall be crushed for industrial purposes. IOPEPC shall obtain evidence in this regard from the exporter.

12	Penal Provisions	12.1	In the event of breach of procedures given in this document, IOPEPC shall take following necessary action: a) Cancellation of Registration-cum-Membership Certificate. b) Derecognition of PPP processing, shelling, grading units/warehouses units. c) Notifying to DGFT for cancellation of Import-Export Code Number allocated to such exporters. d) Any other action as deemed fit.
		12.2	In the event of breach of procedures given in this document, APEDA may initiate action as per the provisions of section 19(3), Chapter-V of the APEDA Act, 1985, extract given in **Annexure-XIV,** and as per powers conferred vide Notification No. 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 and amendments thereof in addition to followings: a) Cancellation of Registration-cum-Membership Certificate. b) Notifying to DGFT for cancellation of Import-Export Code Number allocated to such exporters. c) Any other action as deemed fit.

Signed/-
(Asit Tripathy)
Chairman, APEDA

Place: New Delhi
Date: 09.01.2013

Annexure-I

SAMPLE SLIP OF PEANUTS & PEANUT PRODUCTS

1	Sample Slip No.	
2	Date	
3	Name & Address of the exporter	
4	APEDA RCMC No. of the exporter	
5	IOPEPC RCMC No. of the exporter	
6	Name & Address of the PPP processing unit	
7	IOPEPC Recognition No. of the PPP processing unit, integrated peanut processing unit, peanut shelling unit, peanut grading unit, peanut shelling-cum-grading unit, peanuts godown/storage unit	
8	Consignment details: Lot No. Number of bags/packages Quantity (MT)/container Date of packing	
9	Grade and variety of the produce	
10	Country of exports	
11	Intended use of the produce by importer (*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 (maximum levels of aflatoxins in μg/kg related to a product with maximum moisture content of 7%) (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%) (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%) (iv) 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%) (v) Groundnuts (peanuts) for exports to countries other than EU (maximum levels of aflatoxins in μg/kg related to a product with maximum moisture content of 7%)	

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

CERTIFICATE

1. This is to certify that, I have drawn this sample personally from the above mentioned IOPEPC recognised PPP processing units, integrated peanut processing units, peanut shelling units, peanut grading units, peanut shelling-cum-grading units, peanuts godowns/storage (as applicable) of the exporter by adopting the procedure given in Annexure-III.

2. I have sealed the consignment bearing seal Nos. as follows:

Lot No.	Number of bags	Quantity (MT)	Date of sealing	Seal No.

3. It is certified that the sampling has been done at the finished product storage premises as per **para 4.3** of the document.

4. Address and location of drawl of samples: _____

5. I have also verified the IOPEPC recognition of PPP processing units, integrated peanut processing units, peanut shelling units, peanut grading units, peanut shelling-cum-grading units, peanuts godowns/storage where applicable.

6. As on date, APEDA recognition of this laboratory is valid.

Date:
Place:

Signature :
Name of authorized Representative of Authorized Laboratory :
Official address :

Annexure-II

*LIST OF AUTHORIZED LABORATORIES

Sr. No.	Name of the laboratory	Status of the laboratory
National Research Centre for Grapes (NRCG) (Indian Council of Agricultural Research) P.B. No. 3 Manjri Farm Post Solapur Road Pune 412 307 Tel.: +91-20-26956002 EPABX: +91-20-26956000 Fax: +91-20-26956099 dirnrcg@gmail.com; dirnrcg@icar.org.in; nrcgrapes@gmail.com; apedanrl@gmail.com; Website: http://nrcgrapes.nic.in		National Referral Laboratory (NRL)
1	AES Laboratories (P) Ltd. B-118 Phase II NOIDA 201304 UP Tel: 0120-3047900, 2562645 Fax: 0120-3047914 Vishal.arora@aeslabs.com;	ISO/IEC-17025, NABL accredited, APEDA recognised laboratory
2	Choksi Laboratories Limited 6/3 Manoramaganj Indore 452 001 Tel: 0731-4243888, 2493592/3 Fax: 0731-2490593 v.choksi@choksilab.com; indore@choksilab.com;	ISO/IEC-17025, NABL accredited, APEDA recognised laboratory
3	Geo Chem Laboratories Pvt. Ltd. Pragati, Adjacent to Crompton Greaves Kanjur Marg (E) Mumbai – 400 042 Phone: 022-61915100 Fax: 022-61915101 neel@geochemgroup.com; sureshbabu.p@geochem.net.in; laboratory@geochem.net.in;	ISO/IEC-17025, NABL accredited, APEDA recognised laboratory
4	MicroChem Silliker Pvt. Ltd. MicroChem House A-513 TTC Industrial Area MIDC Mahape Navi Mumbai 400 701 Tel: 022-27787800 deepa@microchem.co.in; drbala@microchem.co.in; ajit@microchem.co.in	ISO/IEC-17025, NABL accredited, APEDA recognised laboratory
5	Reliable Analytical Laboratories Pvt. Ltd. 125/139 Indian Corporation Mankoli Gundavli Bhiwandi Thane 421 302 Tel: 02522-398100 renu@reliablelabs.org; meenal@reliablelabs.org;	ISO/IEC-17025, NABL accredited, APEDA recognised laboratory
6	SGS India Pvt. Ltd. 201, Sumel II, Near Gurudwara Thaltej Cross Road SG Highway Ahmedabad 380 054 Tel: 07926854360, Fax: 07926854380 purvi.shah@sgs.com;	ISO/IEC-17025, NABL accredited, APEDA recognised laboratory
7	TUV India Pvt Ltd. Survey No: 423/1 & 3/2 Near Pashankar Auto (Baner) Sus-Pashan Road Pune 411 021 Tel: 020-67900000 vkguptal@tuv-nord.com; foodlab@tuv-nord.com; mumbai@tuv-nord.com;	ISO/IEC-17025, NABL accredited, APEDA recognised laboratory

*Authorization of laboratories is a continuous process and could be downloaded from following web link:

http://apeda.gov.in/apedawebsite/HACCP/List_of_authorized_laboratories_for_sampling_and_analysis.pdf

Annexure-III

METHOD OF SAMPLING & ANALYSIS

(Please refer to para 4.4 of this document)

Following method of sampling of PPP 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 countries except UK, Commission Regulation (EC) No. 152/2009 of 27 January 2009.

(iii) For consignments of PPP for category (iii) for feed stuffs meant for exports to UK, Feeding Stuffs (England) UK, Regulations 2010, statutory instrument 2010 No.2280, feed procedure and testing of feed (sampling & analysis) http://www.opsi.gov.uk.

(iv) For consignments of PPP for category (iv) and (v) for exports to the countries other than EU Codex guidelines (Codex Stan 193-1995)

(i) <u>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.</u>

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 only HPLC equipment with immunoassay fluorescent detector 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. 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 qualify for exports for either of the following categories:

(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%)

(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%)

(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%)

(iv) 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%)

(v) Groundnuts (peanuts) for exports to countries other than EU (maximum levels of aflatoxins in μg/kg related to a product with maximum moisture content of 7%)

1.3 The authorized laboratories, therefore, shall clearly label the respective lots of consignments for the above categories. The levels under each category also shall not exceed levels prescribed in Annexure-IV of the document titled Regulation of export of peanuts and peanut products through control of aflatoxins.

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.

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

- Weight: in kg

- Sampling frequency (SF): every n^{th} 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 As a rule, peanuts shall be packed in 25 or 50 kg PP or jute bags. The jute bags shall be fresh and inner coated. In case of big bags weighing 1000 kg to 1500 kg, only PP bags shall be used for exports. The containers shall have generally total weight of 18-25 tons. The required number of (base) samples can be obtained in the following manner, with the objective of acquiring a representative collective sample:

Automated sampler for filling individual packages

Samples of at least 100 different individual packages (=< 50kg)

Samples taken from all big bags

1.9 Sampling method

This method of sampling is of application for the control of the maximum levels for aflatoxin B1 and total aflatoxins in groundnuts (peanuts).

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 survey of the method of sampling

Table 1

Subdivision of lots into sublots depending on product and lot weight

Commodity	Lot weight (tonne)	Weight or number of sublots	No incremental samples	Aggregate sample weight (kg)
Groundnuts (peanuts)	> 500	100 tonnes	100	20
	> 125 & <500	5 sublots	100	20
	≥ 15 and ≤ 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 homogenise 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 incremental samples	Aggregate sample Weight (kg) (in case of retail packings, weight of aggregate sample can diverge	No of laboratory samples from aggregate sample
≤ 0,1	10	2	1 (no division)
> 0,1 – ≤ 0,2	15	3	1 (no division)
> 0,2 – ≤ 0,5	20	4	1 (no division)
> 0,5 – ≤ 1,0	30	6	1 (no division)
> 1,0 – ≤ 2,0	40	8 (- < 12 kg)	1 (no division)
> 2,0 – ≤ 5,0	60	12	2
> 5,0 – ≤ 10,0	80	16	2
> 10,0 – ≤ 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 homogenise 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;

- ≥ 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 he 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).

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 of Annexure-3 and test it for aflatoxin as per human consumption i.e. 2 tests. The exporter will be uploading the lot as single consignment in Peanet.Net. The acceptance of the lot will be subject to passing of 2 tests. Compliance to the EU 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) <u>For consignments of PPP for bird feed meant for export to EU countries except UK, Commission Regulation (EC) No. 152/2009 of 27 January 2009.</u>

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.

2 Sampling personnel: The samples shall be taken by persons authorised for that purpose by the authorized laboratories.

3 Definitions: Sampled portion: A quantity of product constituting a unit, and having characteristics presumed to be uniform.

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 representative part of the aggregate sample, obtained from the latter by a process of reduction.

Final sample: A part of the reduced sample or of the homogenised aggregate sample.

4 Apparatus

4.1 The sampling apparatus must be made of materials which cannot contaminate the products to be sampled. Such apparatus may be officially approved by the Member States.

4.2 Apparatus recommended for the sampling of solid feed

4.2.1 Manual sampling

- Flat-bottomed shovel with vertical sides.

- 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.

4.2.2 Mechanical sampling: Approved mechanical apparatus shall be used for the sampling of moving feed.

4.2.3 Divider: Apparatus designed to divide the sample into approximately equal parts may be used for taking incremental samples and for the preparation of reduced and final samples.

5. Quantitative requirements

5.A	In relation to the control of substances or products uniformly distributed throughout the feed	
5.A.1	Sampled portion: The size of the sampled portion must be such that each of its constituent parts can be Sampled	
5.A.2	Incremental samples	
5.A.2.1	Loose feed:	Minimum number of incremental samples:
5.A.2.1.1	sampled portions not exceeding 2,5 metric tons	seven
5.A.2.1.2	sampled portions exceeding 2,5 metric tons	√ 20 times the number of metric tons making up the sampled portion (*), up to a maximum of 40 incremental samples
5.A.2.2	Packaged feed:	Minimum number of packages to be sampled (**):
5.A.2.2.1	Packages of more than 1 kg:	
5.A.2.2.1.1	sampled portions of one to four packages	all packages
5.A.2.2.1.2	sampled portions of 5 to 16 packages	four
5.A.2.2.1.3	sampled portions of more than 16 packages	√ number of packages making up the sampled portion (*), up to maximum of 20 packages
5.A.2.2.2	Packages not exceeding 1 kg	Four
5.A.2.3	Liquid or semi-liquid feed:	Minimum number of containers to be sampled (**):
5.A.2.3.1	Containers of more than one litre:	
5.A.2.3.1.1	sampled portions of one to four containers	all containers
5.A.2.3.1.2	sampled portions of 5 to 16 containers	four
5.A.2.3.1.3	sampled portions of more than 16 containers	√ number of containers making up the sampled portion (*), up to a maximum of 20 containers
5.A.2.3.2	Containers not exceeding one litre	four
5.A.2.4	Feed blocks and mineral licks	Minimum number of blocks or licks to be sampled (**): one block or lick per sampled portion of 25 units, up to a maximum of four blocks or licks
5.A.3	Aggregate sample: A single aggregate sample per sampled portion is required. The total amount in the incremental samples making up the aggregate sample shall be not less than the following:	

5.A.3.1	Loose feed	4 kg
5.A.3.2	Packaged feed:	
5.A.3.2.1	packages of more than 1 kg	4 kg
5.A.3.2.2	packages not exceeding 1 kg	weight of the contents of four original packages
5.A.3.3	Liquid or semi-liquid feed:	
5.A.3.3.1	containers of more than one litre	four liters
5.A.3.3.2	containers not exceeding one litre	volume of the contents of four original containers
5.A.3.4	Feed blocks or mineral licks:	
5.A.3.4.1	each weighing more than 1 kg	4 kg
5.A.3.4.2	each weighing not more than 1 kg	weight of four original blocks or licks
5.A.4	Final samples: The aggregate sample gives the final samples on reduction when necessary. 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
	Liquid or semi-liquid feed	500 ml
5.B	In relation to the control of undesirable substances or products likely to be distributed no uniformly throughout the feed, such as aflatoxins, rye ergot, castor-oil plant and crotalaria in feed materials (***)	
5.B.1	Sampled portion: see 5.A.1	
5.B.2	Incremental samples	
5.B.2.1	Loose feed: see 5.A.2.1	
5.B.2.2	Packaged feed:	Minimum number of packages to be sampled:
5.B.2.2.1	sampled portions consisting of one to four packages	all packages
5.B.2.2.2	sampled portions consisting of 5 to 16 packages	four
5.B.2.2.3	sampled portions consisting of more than 16 packages	√ number of packages making up the sampled portion (*), up to a maximum of 40 packages
5.B.3	Aggregate samples: The number of aggregate samples will vary with the size of the sampled portion. The minimum number of aggregate samples per sampled portion is given below. The total weight of the incremental samples making up each aggregate sample shall be not less than 4 kg	
5.B.3.1	Loose feed	
	Weight of the sampled portion in metric tons:	Minimum number of aggregate samples per sampled portion:
	up to 1	1
	more than 1 and up to 10	2
	more than 10 and up to 40	3
	more than 40	4
5.B.3.2	Packaged feed	
	Size of the sampled portion in number of packages:	Minimum number of aggregate samples per sampled portion:
	1 to 16	1
	17 to 200	2

	201 to 800	3
	more than 800	4
5.B.4	Final samples: Each aggregate sample gives the final samples on reduction. Analysis of at least one final sample per aggregate sample is required. The weight of the final sample for analysis may not be less than 500 g	

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

(**) For packages or containers whose contents do not exceed 1 kg or one litre and for blocks or licks weighing not more than 1 kg each, an incremental sample shall be the contents of one original package or container, one block or one lick.

(***) The methods provided for in 5.A are for use in the control of aflatoxins, rye ergot, castor-oil plant and crotalaria in complete and complementary feed.

6. Instructions for taking, preparing and packaging the samples

6.1 General: The samples must be taken and prepared as quickly as possible 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.

6.2 Incremental samples

6.2.1 In relation to the control of substances or products uniformly distributed throughout the feed Incremental samples must be taken at random throughout the whole sampled portion and they must be of approximately equal sizes.

- Loose feed: An imaginary division shall be made of the sampled portion into a number of approximately equal parts. A number of parts corresponding to the number of incremental samples required in accordance with 5.A.2 shall be selected at random and at least one sample taken from each of these parts.

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

- Packaged feed: Having selected the required number of packages for sampling as indicated in 5.A.2, part of the contents of each package shall be removed using a spear or shovel. Where necessary, the samples shall be taken after emptying the packages separately. Any lumps shall be broken up, if necessary, by separating them out and returning into the sample, in each aggregate sample separately.

- Homogeneous or homogenisable liquid or semi – liquid feed: Having selected the required number of containers for sampling as indicated in 5.A.2, the contents shall be homogenised if necessary and an amount taken from each container.

  The incremental samples may be taken when the contents are being discharged.

- Non-homogenisable, liquid or semi-liquid feed: Having selected the required number of containers for sampling as indicated in 5.A.2, samples shall be taken from different levels.

  Samples may also be taken when the contents are being discharged but the first fractions shall be discarded.

  In either case the total volume taken must not be less than 10 litters.

- Feed blocks and mineral licks: Having selected the required number of blocks or licks for sampling as indicated above, a part of each block or lick shall be taken.

6.2.2 In relation to the control of undesirable substances or products likely to be distributed non-uniformly throughout the feed, such as aflatoxins, rye ergot, castor-oil plant and crotalaria in feed materials

An imaginary division shall be made of the sampled portion into a number of approximately equal parts, corresponding to the number of aggregate samples provided for in 5.B.3. If this number is greater than one, the total number of incremental samples provided for in 5.B.2 shall be distributed approximately equally over the different parts. Then take samples of approximately equal sizes (1) and such that the total amount in the samples from each part is not less than the minimum 4 kg quantity required for each aggregate sample. Incremental samples taken from different parts shall not be aggregated.

6.3 Preparation of aggregate samples

6.3.1 In relation to the control of substances or products distributed uniformly throughout the feed

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

6.3.2 In relation to the control of undesirable substances or products likely to be distributed non-uniformly throughout the feed, such as aflatoxins, rye ergot, castor-oil plant and crotalaria in feed materials

The incremental samples from each part of the sampled portion shall be mixed and the number of aggregate samples provided for in 5.B.3, made up taking care to note the origin of each aggregate sample.

6.4 Preparation of final samples: The material in each aggregate sample shall be carefully mixed to obtain a homogenised sample (1). If necessary the aggregate sample shall first be reduced to at least 2 kg or two litres (reduced sample) either by using a mechanical or automatic divider or by the quartering method.

At least three final samples shall then be prepared, of approximately the same amount and conforming to the quantitative requirements of 5.A.4 or 5.B.4. Each sample shall be put into an appropriate container. 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.

6.5 Packaging of final samples: The containers or packages shall be sealed and labelled (the total label must be incorporated in the seal) in such a manner that they cannot be opened without damaging the seal.

7. Sampling record: A record must be kept of each sampling, permitting each sampled portion to be identified unambiguously.

8. Destination of samples: For each aggregate sample, at least one final sample shall be sent as quickly as possible to the authorised analytical laboratory, together with the information necessary for the analyst.

General provisions on methods of analysis for feed

9. Preparation of samples for analysis

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

These 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.

Precautions to be taken: The sample preparation procedure to be followed is dependent on the methods of analysis used. It is therefore of major importance that it is ensured that the followed sample preparation procedure is appropriate for the used method of analysis.

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.

Wet grinding, mixing and sieving shall be carried out as quickly as possible with minimal exposure of the sample to the air and light. Mills and grinders likely to appreciably heat the sample shall not be used.

Quick wet 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 of trace elements.

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.

10. Procedure: Divide the sample into adequate sub-samples for analysis and for reference by using adequate splitting techniques like alternate shoveling, stationary or rotary riffling. Coning and quartering is not recommended because this might provide sub samples with high splitting error. Keep the sample for reference in a suitable clean, dry container, fitted with an air-tight stopper, and prepare the sub-samples for analysis of at least 100 g as indicated below.

11. Feed which can be ground as such: Unless otherwise specified in the methods of analysis, sieve the whole sample through a sieve with a square mesh of 1 mm side (in accordance with recommendation ISO R565) after wet grinding, if necessary. Avoid any over grinding.

Mix the sieved sample and collect it in a suitable clean, dry container fitted with an air-tight stopper. Mix again, immediately before weighing out the amount for analysis.

12. Feed which can be ground after drying: Unless otherwise specified in the methods of analysis, dry the sample to bring its moisture content down to a level of 8 % to 12 %, according to the preliminary drying procedure described under point 4.3 of the method of determination of moisture mentioned. Then proceed as indicated in section 3.1.

12. Liquid or semi-liquid feed: Collect the sample in a suitable clean, dry container, fitted with an air-tight stopper. Mix thoroughly immediately before weighing out the amount for analysis.

13. Other feed: 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 are homogeneous and representative of the final samples.

14. 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 brown glass containers.

15. Provisions relating to reagents and apparatus used in methods of analysis

    (a) 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.

    (b) 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 dematerialized or distilled. In particular cases, which are indicated in the methods of analysis, it must be submitted to special procedures of purification.

    (c) 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.

16. Application of methods of analysis and expression of the results

    (a) 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 analyzed as the procedure mentioned in the method.

    (b) 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 analyzed as the procedure mentioned in the method.

(c) Reporting of the method of analysis used: In general a single method of analysis is established for the determination of each substance in feed. Where several methods are given, the particular method used by the control laboratory must be indicated on the analysis report.

17. Number of determinations: The result given in the analysis report shall be the average value obtained from at least two determinations, carried out on separate portions of the sample, and of satisfactory repeatability.

However, 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 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 some cases this acceptable range of variation is defined in legislation such as in Council Directive 79/373/EEC (1).

18. 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.

19. Measurement uncertainty and recovery rate in case of analysis of undesirable substances: As regards undesirable substances within the meaning of Directive 2002/32/EC, including dioxins and dioxin-like PCBs, a product intended for animal feed shall be considered as non-compliant with the established maximum content, if the analytical result is deemed to exceed the maximum content taking into account expanded measurement uncertainty and correction for recovery. In order to assess compliance, the analyzed 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).

20. 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):

(a) Corrected for recovery, the level of recovery being indicated. The correction for recovery is not necessary in case the recovery rate is between 90 % and 110 %;

(b) 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 bird feed meant for exports to UK, Feeding Stuffs (England) UK, Regulations 2010, statutory instrument 2010 No.2280, feed procedure and testing of feed (sampling & analysis).

The authorized laboratories shall follow method of sampling and analysis of peanuts and peanut products consignments (feeding stuffs) meant for exports to the United Kingdom in addition to procedure given above. The UK regulations are available at:

http://www.opsi.gov.uk.

(iv) For consignments of PPP for exports to countries other than EU for category (iv) and (v) (maximum levels of aflatoxins in μg/kg related to a product with maximum moisture content of 7%) sampling shall be as follows:

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 against a maximum level of 15 micrograms per kilogram (μg/kg) total aflatoxins.

4. This sampling plan is for total aflatoxins in bulk consignments of peanuts for exports to the markets other than EU.

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.

Sublot: designated part of a large lot in order to apply the sampling method on that designated part. Each sublot 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 the lot or sublot.

Aggregate sample: the combined total of all the incremental samples taken from the lot or sublot. 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. Based upon grinder capacity, the 20 kg aggregate sample can be divided into several equal sized samples, if all results are averaged.

6. Sampling and material to be sampled: Each lot, which is to be examined, must be sampled separately. Large lots should be subdivided into sublots to be sampled separately. The subdivision can be done following provisions laid down in Table 1 below.

7. 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 %.

Table 1: Subdivision of Large Lots into Sublots for Sampling

Commodity	Lot weight – tonne (T)	Weight or number of sublots	Number of incremental samples	Laboratory Sample Weight (kg)
Peanuts	≥500	100 tonnes	100	20
	> 100 and < 500	5 sublots	100	20
	≥ 25 and ≤ 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≤1	10
1<T≤ 5	40
5<T≤10	60
10<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 through out 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 a 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 x IS) / (AS x 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 x LT) / (T x 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 x V) / (D x 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 20kg.

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 excluded as much as possible during the procedure, since aflatoxin gradually breaks down under the influence of ultra-violet light.

25. Homogenisation – Wet Grinding: As the distribution of aflatoxin is extremely non-homogeneous, samples should be prepared – and especially homogenised – with extreme care. All laboratory sample obtained from aggregate sample is to be used for the homogenization/wet grinding of the sample.

26. The sample should be finely ground and mixed thoroughly using a process that approaches as complete a homogenisation as possible.

The use of a hammer mill with a #14 screen (3.1 mm diameter hole in the screen) has been proven to represent a compromise in terms of cost and precision. A better homogenisation (finer grind – slurry) can be obtained by more sophisticated equipment, resulting in a lower sample preparation variance.

Test portion: A minimum test portion size of 100 g taken from the laboratory sample.

Analytical Methods: Background: 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 µg/kg	80 to 110%	
Precision RSD^R	All	As derived from Horwitz Equation	2 × value derived from Horwitz Equation
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.:

  $RSD_R = 2^{(1-0.5\log C)}$

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

Material required for sampling

- Clean food grade containers/pouches
- Disposable hand gloves
- Spears/scoops
- Sealing wax, thread, labels, clothe
- Laboratory seal
- Label details
- Name of processor
- Lot/batch number
- Date of sampling
- Signature of representative of laboratory and processor

Sampling record: The sampling record shall be maintained both by the processor and the laboratory.

Packaging and transmission of laboratory sample: The laboratory sample must 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.

Annexure-IV

AFLATOXIN LEVELS IN PEANUTS & PEANUT PRODUCTS

(Please refer to para 4.5 of this document)

Levels of aflatoxins shall not be exceeding the followings in their respective categories. The authorized laboratories shall analyze peanuts and peanut products for determination of aflatoxin levels for the following:

Sl. No.	Product categories	Maximum aflatoxin levels µ	
		B_1	Sum of $B_1+B_2+G_1+$
(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 Japan and Korea (maximum levels of aflatoxins in µg/kg related to a product with maximum moisture content of 7%)	10	10
(v)	*Groundnuts (peanuts) for exports to countries other than EU (maximum levels of aflatoxins in µg/kg related to a product with maximum moisture content of 7%)	15	15

Note:

(i) Peanuts reporting aflatoxin levels of more than 2 µg/kg for B_1 and more than 4 µg/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 (i) export.

(ii) Peanuts reporting aflatoxin levels of more than 8 µg/kg for B_1 and more than 15 µg/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 (ii) export.

(iii) Peanuts reporting aflatoxin levels of more than 20 µg/kg for B_1 and more than 20 µg/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 (iii) export.

(iv) Peanuts reporting aflatoxin levels of more than 10 µg/kg for B_1 and more than 20 µg/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 (iv) export.

(v) Peanuts reporting aflatoxin levels of more than 15 µg/kg for B_1 and more than 15 µg/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 (v) export.

* Onus of providing information on lower/higher levels of aflatoxins for exports of PPP to an importing country, as mentioned at Category (v) above shall be of the exporter to APEDA through IOPEPC for the purpose of advising to the authorized laboratories.

Annexure-V

CERTIFICATE OF ANALYSIS

(i) General Details

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

(ii) Test Details (Test start date _____ Test end date _____)

Sr. No	Test parameter	Aflatoxin levels & moisture for which sample analyzed*	Equipment and detectors used	Limit of Quantification (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							
	Aflatoxin $B_1+B_2+G_1+G_2$							
	Moisture Content							
(b) & (c)	Aflatoxin B_1							
	Aflatoxin $B_1+B_2+G_1+G_2$							
	Moisture Content							

* Aflatoxins value in μg/kg and moisture value in %age

CERTIFICATE

1. This is to certify that the sample of peanuts and products pertaining to the above consignment was drawn by our authorized representative from the IOPEPC recognised PPP processing unit, integrated peanut processing unit, peanut shelling unit, peanut grading unit, peanut shelling-cum-grading unit, peanuts godown/storage unit having IOPEPC Recognition 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 aflatoxin content in the sample is given in the above table.

2. The samples were drawn from …% of the bags weighing.... kg. per bag from the container load selected as per the prescribed procedure and were thoroughly mixed and made up into composite samples. We shall retain one sealed sample for a period of 90 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 (maximum levels of aflatoxins in μg/kg related to a product with maximum moisture content of 7%)	
(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%)	
(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%)	
(iv)	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%)	
(v)	Groundnuts (peanuts) for exports to countries other than EU (maximum levels of aflatoxins in μg/kg related to a product with maximum moisture content of 7%)	

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

Annexure-VI

APPLICATION FORM FOR GRANT OF CERTIFICATE OF EXPORTS
(To be submitted by exporter to IOPEPC)

To:
IOPEPC

This is to certify that the authorised representative of ___ (laboratory) has drawn samples of peanuts and peanut products and tested as per Trade Notice No. Trade Notice No: Apeda/Q/2011 Date: 15.06.2011 and has sealed each bag/package/lot of the consignment bearing the following details:

1	Name of the Laboratory	
2	Lab Test Report No *(please enclose printed copy)*	
3	Name & Address of the exporter	
4	APEDA RCMC No. of the exporter	
5	IOPEPC RCMC No. of the exporter	
6	IOPEPC Recognition No. of PPP processing unit, integrated peanut processing unit, peanut shelling unit, peanut grading unit, peanut shelling-cum-grading unit, peanuts godown/storage unit	
7	Name & Address of consignee	
8	Consignment Details Lot No. Number of bags/ packages Quantity (MT)/container Date of sealing Seal No.	
9	Intended use (*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 (maximum levels of aflatoxins in μg/kg related to a product with maximum moisture content of 7%)	
(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%)	
(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%)	
(iv)	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%)	
(v)	Groundnuts (peanuts) for exports to countries other than EU (maximum levels of aflatoxins in μg/kg related to a product with maximum moisture content of 7%)	

It is requested that Certificate of Export may please be issued to enable us effect shipment of the above consignment to _____ (country name).

Date:
Place:

Authorised signatory
Name:
Designation:

Annexure-VII

MONTHLY STATEMENT OF EXPORTERWISE SAMPLES TESTED BY AUTHORIZED LABORATORIES
(TO BE SUBMITTED BY AUTHORIZED LABORATORIES TO IOPEPC & NRL)

Sl. No.	Name of PPP : (i) peanut processing unit, integrated peanut processing unit (ii) shelling unit, grading unit, shelling-cum-grading unit (iii) godown/storage	IOPEPC Recognition No. of: (i) peanut processing unit, integrated peanut processing unit (ii) shelling unit, grading unit, shelling-cum-grading unit (iii) godown/storage	Lab Test Certificate No.	Stuffing/Loading Certificate No. and quantity (MT)	Summary of Test Results
					Category Level of aflatoxin content (μg/kg) Samples passed Samples failed (i)Aflatoxin B_1 (ii)Aflatoxin $B_1+B_2+G_1+G_2$

Date:
Place:

Signature
Name of authorized signatory
Name of Laboratory

Annexure-VIII

QUARTERLY CONSOLIDATED STATEMENT OF TEST REPORTS

(TO BE SUBMITTED BY NATIONAL REFERRAL LABORATORY TO IOPEPC)

Reports received during this period							
Name and address of the unit							
Place of testing							
Products							
Number of batches	[ ] Months/Quarter wise ➔1st 2nd 3rd 4th			January April July October	February May August November	March June September December	Total
Number of samples tested	[ ]	Nos.	Wt. in kg				Nos.
	Passed						
	Failed						
Sampling procedure followed	IOPEPC Guideline						
Name of aflatoxins tested	IOPEPC Guideline						

Sl. No.	Batch No.	Batch size (kg)	Name of aflatoxin*	Level of Aflatoxin (μg/kg)/ ppb	Aflatoxin levels found (μg/kg)/ ppb	Method of analysis	Compliances (Yes) on-compliance (No); (Internal Alert Information Number)	Date of analysis completion
1.								
2.								
3.								
4.								

* Aflatoxin metabolites not detected/below limits as per Annexure IV.

Place: NRCG Pune
Date:

Signature of the authority of National Referral Laboratory

Annexure-IX

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 Information No……	Original

Page: No__ of ___Pages

Sub: Detection of _____ aflatoxins beyond permissible levels

1. Name of processing unit :
2. APEDA RCMC No. of exporter
3. IOPEPC RCMC No. of the exporter :
   IOPEPC Recognition No. of

   (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 godown/storage unit :

4. Code Number of the produce, if any :
5. Date of processing :
6. Date of sampling :
7. Place of sampling
   Peanut processing unit
   Integrated peanut processing unit
   Peanut shelling unit
   Peanut grading unit
   Peanut shelling-cum-grading unit
   Peanuts godown/storage unit
8. Date of analysis :
9. Findings of the analysis

   _____

10. Recommendations by National Referral Laboratory

    _____

Date:
Place:

Signature of the Authorized
Signatory of the National Referral
Laboratory along with seal

Copies to:
1. Concerned unit/exporter
2. All authorized laboratories
3. IOPEPC

Annexure-X

CERTIFICATE OF EXPORTS

This is to certify that the consignment of peanuts and peanut products with the following details qualifies for export to __ (country name) with respect to aflatoxin levels:

1	Certificate No. and date	
2	Validity of the Certificate	
3	Name & Address of the exporter	
4	IOPEPC RCMC No. of the exporter	
5	Name & Address of PPP processing unit	
6	IOPEPC Recognition No. of PPP processing unit, integrated peanut processing unit, peanut shelling unit, peanut grading unit, peanut shelling-cum-grading unit, peanuts godown/storage	
7	Name & Address of consignee	
8	Details of consignment: Lot No. Number of bags Quantity (MT)/container Date of sealing Seal No.	
9	Lab Test Certificate No.	
10	Name & Place of Laboratory	
11	Intended use (*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 (maximum levels of aflatoxins in μg/kg related to a product with maximum moisture content of 7%)	
(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%)	
(iii)	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%)	
(iv)	Groundnuts (peanuts) for exports to countries other than EU (maximum levels of aflatoxins in μg/kg related to a product with maximum moisture content of 7%)	

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.

Date:
Place:

Authorised signatory of IOPEPC

Name:
Designation:

Annexure-XI

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	Name & Address of consignee	
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 (maximum levels of aflatoxins in μg/kg related to a product with maximum moisture content of 7%)	
(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%)	
(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%)	
(iv)	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%)	
(v)	Groundnuts (peanuts) for exports to countries other than EU (maximum levels of aflatoxins in μg/kg related to a product with maximum moisture content of 7%)	

7	Details of consignment: Lot No. Number of bags/ packages Quantity (MT)/container *(gross*) Date of sealing Seal No.	
8	Grade and variety of the produce	
9	Date of stuffing/loading into the container	
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	

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 IOPEPC 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 30 kg silica gel has been spreaded on the space above the top layers of the bags and the roof of the container as well as 30 kg silica gel spreaded through the cargo.

Date:
Place:

Seal

Signature of authorized signatory of
Authorized Laboratory

Annexure-XII

Procedure for dealing with RASFF and rejection

1. An intimation alongwith copy of the RASFF and rejection shall be disseminated by APEDA through email to IOPEPC, NRL and to authorized laboratory. APEDA may seek clarification from the importing country/Health Authorities, if required.

   IOPEPC shall put the unit under "Internal Alert" and intimate the concerned exporter within next seven days. However, the exporter will not be stopped from exporting, as a consequence of "internal Alert" and IOPEPC will continue to issue Certificate of Exports, subject to procedure laid down in this document. The unit will be required to submit the following information within seven days:

   i) Full particulars of the consignment such as product name, quantity, batch code/grade along with self-attested copies of related documents such as certificate for export, health certificate, bill of lading, etc. and also source of raw materials used for processing and export.

   ii) Test reports of finished products including the pre export test report for aflatoxins pertaining to the consignment.

   iii) The particulars of groundnuts and groundnut products held in stock by the processor.

   iv) Feedback regarding the reason for rapid alert or rejection.

   v) Additional information, if any, relevant to the RASFF/rejection/complaint.

   If the exporter fails to submit the information mentioned above and feedback, IOPEPC shall be at liberty to deny issue of Certificate of Exports and/or NOC to the exporter. The feedback received pertaining to respective RASFF and rejection from the concerned exporter, shall be submitted to APEDA within twenty days of dissemination of the RASFF and rejection to IOPEPC.

   An advice shall be issued by IOPEPC to the concerned exporter for rigorous implementation and review of food safety management systems alongwith suggested corrective action for ensuring compliances so as to ensure non-occurrence of RASFF and rejection.

   IOPEPC shall take samples for testing of five consecutive consignments of groundnuts after sending RASFF and rejection to the exporter. The exporter shall inform IOPEPC at least 3 days in advance of such consignment so that necessary arrangements can be made to collect samples by representative of IOPEPC. Samples would be jointly collected by IOPEPC representative alongwith the representative of laboratory. The cost of such testing will be borne by the concerned exporter.

2. Information from the laboratory, which had tested the product in question:

   i) Every laboratory involved with the consignment in question by way of sampling and

testing of the pre-shipment samples in respect of the contaminant(s) which caused the rejection, shall be informed by IOPEPC about the complaint with a request to investigate into the matter.

ii) The laboratory will submit complete set of chromatograph of test done to IOPEPC

iii) The labs shall send the retained samples to NRL so that NRL can conduct test of retained samples. The results from NRL would be sent to IOPEPC and APEDA, which would be required for the purpose of assessment of the facility.

3. Assessment of the facility for conducting Root-Cause Analysis

i) IOPEPC will carry out a root cause analysis at the plant level and send a detailed report on the proposed corrective actions and measures to prevent the recurrence.

ii) The periodicity of verification by IOPEPC shall be on quarterly basis depending on occurrence of the RASFF and rejection. The cost pertaining to verification visit by IOPEPC to the concerned unit/storage of the exporters shall be borne by the respective exporter. IOPEPC shall organize verification visit to such concerned units/storage godowns of the exporters on quarterly basis until IOPEPC is satisfied with their performance.

iii) Assessment to be carried out by IDP, consisting of one representative each from APEDA, IOPEPC, NRL, DGR and representative from respective state Government to be constituted by IOPEPC. The root-cause analysis would involve the following:

- Determine the cause of contamination/rejection
- Suggest remedial measures so as to prevent further rejection and to collect details of the rejected consignment, in case the same has not been received.
- A detailed root cause analysis by the panel (including audit of primary production facilities to ascertain the actual cause of rejection.
- The IDP shall avoid concluding that the cause for the complaint/rejection could not be found without substantiated justification.

Assessment shall include

- Implementation of HACCP and pre-requisite programme of the unit covering all applicable areas.
- Control measures exercised by the unit at all stages of production, storage and transportation, including GMP, sanitary controls, personal hygiene control, pest control, calibration, record keeping, etc.
- Source of raw materials, traceability system of the unit, testing of raw materials pre-export test reports as applicable, transportation etc.
- Internal audits including primary production, training of employees, validation of HACCP plan/validation of critical limits.

Report may contain

- Source and other details of raw materials for the rejected consignment.
- Control measures exercised by the unit at all stages of production starting from primary production to prevent development of aflatoxins.
- Hygiene and sanitation procedures adopted by the unit. GMP, control on water, personal hygiene control, pest control etc., as applicable
- Details of review of HACCP, amendments, internal audits, training, validation HACCP plan/critical limit, calibration etc., as applicable.
- Details of investigation carried out by the unit in the light of the rejection and corrective action taken/proposed to be taken.
- Details of pre-export testing of the rejected consignment.
- Performance of the unit during surveillance visits
- Details of monitoring/supervisory visits, HACCP audits and test results of monitoring samples.
- Whether the implementation of HACCP and pre-requisite programmes is satisfactory.
- Implementation of the recommendations given, if any, based on earlier RASFF and rejection
- Possible reasons for rejection of consignment and identified root cause with justification.
- Suggestions for remedial measures to prevent recurrence.

In case Assessment report is found satisfactory the internal alert will be revoked. In case the report is unsatisfactory, IOPEPC would ask the unit to stop further exports of groundnut till corrective action is taken and deficiencies rectified.

4. Revocation of 'Internal alert' will be done if

- The assessment report of the unit indicates satisfactory performance of the processing facility based on proper hygienic conditions and implementation of HACCP;
- The periodical monitoring conducted by IOPEPC during the past three months indicates satisfactory performance of the unit and previous HACCP audit report is satisfactory;
- Audit Report on the primary linkages, done by IOPEPC is satisfactory and suggestions are implemented by the unit.

5. In case of exporter requesting for an NOC to bring back the rejected cargo, the same will be issued by APEDA, on recommendation of IOIPEPC. Subsequent to issue of NOC by APEDA, IOPEPC shall obtain a self certified copy of Bill of Entry within three months of issue of NOC from the concerned exporter. In case the exporter needs extension for submission of Bill of Entry, IOPEPC may consider the same as deemed appropriate. In case the exporter fails to submit copy of Bill of Entry within a reasonable period, IOPEPC shall may deny issue of Certificate of Exports and/or NOC to the exporter.

6. In case the control sample passes, APEDA shall take up with the importing country to withdraw RASFF and rejection.

7. IOPEPC shall submit a copy of each NOC issued to import the consignment to FSSAI under intimation to APEDA as well as usages of the produce. It will also advise the FSSAI to permit import of rejected cargo provided it is allowed for its intended usage.

Annexure-XIII

Format of application for obtain NOC for rejected consignments

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

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. IOPEPC RCMC No.	
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 vegetable oils for exports to EU (maximum levels of aflatoxins in μg/kg related to a product with maximum moisture content of 7%)	
(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%)	
(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%)	
(iv)	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%)	
(v)	Groundnuts (peanuts) for exports to countries other than EU (maximum levels of aflatoxins in μg/kg related to a product with maximum moisture content of 7%)	

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 IOPEPC 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 IOPEPC 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-XIII/ Annexure-XIV, of this document IOPEPC 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)

Annexure-XIV

EXTRACT FROM APEDA ACT
REGISTERED No. D-(D)-72
The Gazette of India
EXTRAORDINARY
PART II – Section 1
MINISTRY OF LAW AND JUSTICE
(Legislative Department)
New Delhi, the 9th January, 1986/Pausa 19, 1907 (Saka)

The following Act of Parliament received the assent of the President on the 8th January 1986, and is hereby published for general information:

THE AGRICULTURAL AND PROCESSED FOOD PRODUCTS EXPORT DEVELOPMENT AUTHORITY ACT, 1985 No. 2 of 1986 [8th January, 1986]

An Act to provide for the establishment of an Authority for the development and promotion of exports of certain agriculture and processed food products and for matters connected therewith.

CHAPTER - V

Power to prohibit or control imports and exports of Scheduled products

CONTROL BY THE CENTRAL GOVERNMENT

19 (1) The Central Government may, by order published in the Official Gazette, make provision for prohibiting, restricting or otherwise controlling the import or export of the Scheduled products, either generally or in specified classes of cases.

(2) All Scheduled products to which any order under sub-section (1) applies, shall be deemed to be goods of which the export has been prohibited under section 11 of the Customs Act, 1962, and all the provisions of that Act shall have effect accordingly.

(3) If any person contravenes any order made under sub-section (1), he shall, without prejudice to any confiscation or penalty to which he may be liable under the provisions of the Customs Act, 1962, as applied by sub-section (2), be punishable with imprisonment for a term which may extend to one year, or with fine, or with both.

* * * * * * *