

Document No. IOPEPC/EU/PNGL/01/2009  
Date: 8<sup>th</sup> May, 2009

**GUIDELINES FOR**  
**OBTAINING**  
**RECOGNITION CERTIFICATE**  
**FOR PEANUT SHELLING & GRADING UNITS**  
**AND**  
**FOR GODOWNS/STORAGE**  
**FOR EXPORT OF PEANUTS**  
**TO EUROPEAN UNION**



Indian Oilseeds & Produce Export Promotion Council  
78/79, Bajaj Bhavan, Nariman Point, Mumbai – 400 021  
Tel. Nos. : 022 – 22023225 / 22029295, Fax. No. : 022 – 22029236  
Web. : [www.iopepc.org](http://www.iopepc.org) / email : [info@iopepc.org](mailto:info@iopepc.org)

### **Broad Classification of Action Area:**

- (i) Structure of the Unit & hygiene in the factory/unit premises.
- (ii) Machinery / Equipments
- (iii) Personnel
- (iv) Record keeping

[i] Structure of the Unit & Access to it : The structure / construction of the shed where the shelling & grading activity is proposed to be conducted must be as recommended for Good Manufacturing Practice.

**Total Hygiene:** This aspect has to be given utmost importance by all Shellers cum Graders. Quality at the processing level is the key to enhance exports. Cleaning, processing, packaging, testing and warehousing facilities should be of a high order. Hygiene is the key to quality control in storage. Care should be taken by Shellers cum Graders in the matter of quality right from raw material selection to processing, packaging, storage and right up to shipment. This continuous monitoring of the quality on a regular basis ensures high quality of the export goods.

Sanitary and hygienic conditions of the Unit should be of paramount importance. This should not only be attained but should also be maintained throughout the season. Boards should be displayed in bold letters strictly prohibiting smoking, pan chewing, spitting etc. in the factory premises especially in those places where grading, hand picking etc. are carried out.

Footwear worn by personnel when they arrive from their house should be removed before they enter the unit. Special footwear for wearing in processing & storage area to be provided.

All the premises, machinery, equipment and utensils in the factory should be kept clean to avoid accumulation of dust, cobwebs, entry of rodents, birds and insects by providing wire mesh or net to the doors, windows and ventilators and also curtains to the doors and windows. Shellers cum Graders should ensure that the doors are kept closed as far as possible. The surroundings of the premises should be kept clean to avoid harbourage of rodents and prevent entry of animals. Surrounding premises should be devoid of rat holes/burrows of bushy vegetation and should be clean. Chemicals which can get rid of /kill insects and equipments which can trap rodents etc. should be used wherever necessary, especially in places where the processing is carried out and goods are kept for export.

### **Control of Animals, Rodents, Birds and Pests**

It should be ensured that animals, rodents and birds do not enter in the handling, processing, manufacturing and storage premises.

Effective control mechanism to prevent entry of insects / rodents /birds /pests should be set up and maintained. There should be a laid down programme for periodic disinfestations as prophylactic measure wherever necessary.

All cracks or holes in building must be sealed to reduce likely entry of rodents, birds or insects. Floor spillage and waste must be cleared immediately. Fly traps / Mouse traps should be used to minimise insect / rodent activity.

## **Godowns, Storage and Proper Upkeep of Stocks in Warehouses**

The ideal requirements for good, storage-worthy godowns are:

Provision for ample aeration and ventilation for the free passage of air and processing & storage area must be damp-proof. This facilities keeping cool, dry atmosphere in the godown which is a pre-requisite for healthy storage.

Provision for ample light: the godown should not be dingy. This retards pest activity and hibernation.

High plinth and pucca cement flooring with smoother walls to serve as rodent proofing and floor being damp proof. The smooth wall has a deterrent effect on crawling infestation.

Should be free from crevices, cracks and holes to prevent insects hiding, especially during unfavourable weather conditions.

Roofing should be preferably terraced or of asbestos sheets forming a triangular shape. It should be free from leakage spots or condensation drip points, walls free from seepage. Steel trusses should be used for strength. In case of asbestos roofing proper valley gutter arrangements for collecting rain water and draining out should be provided.

Broken bags or spills should be cleaned immediately. (Prevention is cheaper than cure!)

Rotate stock first in – first out basis.

The godowns should be slightly away from residential areas and at the same time safely located, preferably near Ports.

Provision for exhaust fans for removal of warm air, where necessary. Alternatively the store should be absolutely air-tight. The product should be kept as cool as practical. Care should be taken to see that the stored goods are out of direct sunlight.

The damage to groundnut kernels due to fungal, microbial and insect attacks can be minimized to a large extent if groundnut kernels are stored in structures which prevent as far as practicable, their entry inside and also if suitable measures taken during handling, transport and storage. To cite an example, the use of hooks during transportation should not be allowed and packing should be handled carefully.

The damage and pollution including afla contamination in groundnut kernels during storage are mainly due to temperature, moisture, relative humidity, dampness, insects and rodents.

The ideal temperature to be kept / maintained is in the range of 8 – 12 degrees C depending on storage time intended.

The moisture level can be around 7 % maximum for Kharif Crop & 8% maximum for Rabi crop

The relative humidity can be within a range of 55% to 65%. If raw peanuts are stored with relative humidities above 80% for more than a couple of days, they can go mouldy.

If these are maintained, the problem can be controlled to a considerable extent. It is also advisable to use dehumidifiers.

In order to conserve groundnuts and preserve their quality, they should be stored in sound structures and a code of practice should be formulated and adopted for handling, transporting and storing.

The storage premises should be white washed before the commencement of the season at least once in six months. This will prevent cobwebs from spreading and breeding of insects. All windows and light fittings in production or storage areas should be protected. Cleaning of walls / roof must be done periodically.

Prophylactic measure is one aspect of keeping the health of the seed during storage. It serves to prevent cross infestation and also to control any spurting of infestation.

The storage premises should be kept absolutely clean and properly disinfested. Disinfestation as a prophylactic measure should be undertaken by using Malathion diluted in water in the ratio 1:50.

The cargo on receipt should be inspected for infestation and if noticed, should be immediately fumigated by Aluminium Phosphide dosage @9 grams per M.T. for 72 hours exposure period. Check stock for damage, wetting or condensation and segregate. Here the Groundnut in-shells which are damaged or where the shell is ruptured if segregated at the first stage can reduce the incidence of aflatoxin.

The cargo should be properly stacked leaving at least 2 feet from space between the wall of the godown and the stack. At least one foot free space should be made available in between two stacks and a minimum of 6 feet should be left between the ceiling of the godown and the top of the stack. The height of the stack should be not more than 12 feet.

There should be an alleyway for moving about for inspection and disinfestations and also for facilitating movement of bags. Bags should be placed on wooden crates / pallets at the time stacking to avoid floor seepage.

The empty gunnies to be used for packing the cargo should be fumigated including the strings used for stitching, by Aluminium Phosphide dosage @9 grams per M.T. for 72 hours exposure period or Methyl Bromide dosage @ 48 grams per cu.,m. for 24 hours exposure.

Fortnightly inspection of the godown and all stacks should be undertaken. Checking should be carried out for moth, grub and beetle regularly. Any lot observed to contain infestation should be fumigated.

Fortnightly disinfestations services should be carried out using Malathion diluted in water in the ratio 1:50 to avoid cross infestation. Stocks shall be examined at least once in a fortnight.

Stack cards should be mentioned comprising details of

Opening Balance of Bags / Mt	: Date of Receipt, No of Bags, Its Qty in Mt,
Date of Issue	: Its No of Bags, Qty in Mt,
Closing Balance	: No of Bags, Qty in Mt
Date of Inspection	:
Date of fumigation / disinfestations	:

Results : Chemicals used and dosage  
Initial of Incharge :

At the time of packing prior to export, the stocks should be completely free from foreign matter etc. and the moisture content should not be more than 7% for Kharif crop & 8% for Rabi crop.

### **CONTAINER FUMIGATION**

The containers on arrival are inspected for any perforation or damage. They are then rectified by using sealing material or sealing tapes (Preferably steel grip tape) to prevent leakage of the fumigant. The vents of the container are sealed properly (from outside) before fumigation from outside.

The container prior to stuffing should be absolutely clean and dry. The stuffed container is then fumigated, ensuring proper distribution of the fumigant inside the container and then sealed. After the minimum exposure period of 72 hours is attained the vents are then opened.

House stuffed containers which are fumigated reach the port area and wait for several days prior to loading on board vessel. The port godowns usually lack adequate sanitation which in turn might affect the fumigated cargo.

It is advisable to maintain a record of fumigation (which may be audited periodically) carried out under good supervision.

The rejected goods should be kept separately in the store room with identification mark "REJECTED" so that the same do not mix up with accepted goods. So also there should be identification marks for all items in the factory right from the raw materials.

The rejected and waste materials shall be periodically removed from the unit.

All packing materials and empty packs shall conform to the specifications prescribed. Clean, new bags should be used for storing the goods. Care should be taken to see that bags used for fertilizer or cattle feed etc. are not used for storing goods for export at any stage right from the harvesting level to shipment. This can be carried out only if graders cum shellers maintain contact with the farmers who grow groundnuts. This will also help them to educate farmers as to what steps should be taken at the farm level to prevent aflatoxin contamination etc. and thus preserve the quality of groundnuts. The ideal thing would be to use clean new gunny bags from the procurement stage to shipment.

There should be separate rooms to store packing materials as otherwise they may get contaminated/spoilt with dust, insect infestation, harbourage by rodents and exposure to extreme conditions of light and temperature.

The goods should not be stored with commodities or materials which give off odors likely to be absorbed e.g. some vegetables, fruits, cheese and meat, wood, paints and chemicals.

The products finally packed and passed for export shall be stored in separate rooms in good hygienic conditions with the identification mark "For Export".

## **HOUSE STUFFING**

As every one would agree, “House Stuffing” is to be encouraged. Here too, exporters have to take particular care and adequate precautions while stuffing is carried out in containers. Care should be taken in the matter of selection of containers. They should be free from rust and properly cleaned and dried and then fumigated before stuffing. It is advisable to put corrugated sheets at the bottom and top and craft paper on all sides inside the container and also make use of silica gel after stuffing of containers. It would be better if ventilated containers are made use of.

There should be proper lighting/ventilation in the Unit where grading, processing etc. are carried out. For “closed godowns” lighting arrangements should be such that no area is left without enough light.

## **PACKING/ MARKING**

New clean bags should be used. Machine stitching is recommended. For marking, “screen printing” is recommended as it will be more clear. Pack in reduced oxygen atmosphere – especially roasted product. The ink used for marking should be edible ink otherwise tags are preferred. The bags used for export should be coated with edible oil and not **Mineral Oil**. It is advisable to put tag on each bag instead of screen printing / stencil

### **(ii) MACHINERY/EQUIPMENTS:**

The condition of the machinery for shelling, grading etc. plays an important role in maintaining the quality standard of groundnut. A lot of care has to be taken in their proper maintenance. If the machines are defective or obsolete, they should be replaced with effective and modern ones. The machinery should be regularly serviced and maintained in proper working condition. For this purpose, the guidelines issued by the manufacturers of the machines should be strictly followed. Units must ensure that clogged screens are cleaned at least 2 – 3 times in a day.

Decorticator, Destoner

Mechanical Graders – and Sieves – There should be small screen to labsize sieves to distinguish between various counts and their uniformity.

Hand Picking and Selection : The workers should be provided with picking tables/ picking belts / conveyors for the job or otherwise pucca, tiled floors should be provided.

It is advisable to have own sophisticated equipments like SORTEX machines.

There should be moisture meter and weighing scale.

Should ensure proper, periodic fumigation of the entire area.

### **AFLA TEST:**

For aflatoxin tests, samples must tested by HPLC. Afla test should be carried out by qualified / well recognized agencies.

## **CALIBRATION**

All equipments, instruments, gauges, scales etc. used in the unit for weighing shall be periodically calibrated and records maintained of such calibration.

### **(iii) PERSONNEL**

Workers engaged in hand picking and selection should be given proper training. They should be instructed to keep their hands, legs, etc. clean and look hygienic and proper. Basically it is the awareness about maintaining hygiene among workers which should be created.

Necessary instructions for maintaining cleanliness should be displayed on boards and factory inspectors should keep track of these instructions meant for the workers.

Workers engaged in handling, processing and packing shall be free from communicable diseases. They should be provided with apron – headgears, cover for mouth and hand gloves while working in the processing unit.

The unit should have at least two toilets separately for gents and ladies provided with water taps, wash basin, sufficient quantity of water and detergent for cleaning hands and legs.

Mothers with children should not be encouraged to work in processing units. Children should not be allowed to enter the area where final picking / grading is carried out.

### **(iv) MAINTENANCE OF RECORDS**

The basic purpose of keeping records is to take a collective decision based on details available. Since the decision is based on records, it cannot be biased. This will also enable collective action. It should also be remembered that any corrective action taken should be recorded and should not be verbal. Such recording will also project the intention of the sheller cum grader to produce better quality.

The unit shall, therefore, lay down documentation system and maintain records for the purpose. This includes documentation of quality parameters at different stages. Also during the season – the type of groundnuts exported, their moisture content / afla results after analysis and evaluation of export performance should be recorded. If discharge report is received on quality, the same must be compared with shipped quality. If difference is noticed between the two in grading etc. the same should be set right. The records should be kept for a minimum period of three years.

Fire fighting equipments should always be kept ready in the units.