

## Good Storage Practices for Groundnut Pods and Kernels: Protection from Stored Pests and Aflatoxin Contamination



By and large, groundnut pods and kernels are stored in jute gunny bags for easy handling, low cost and easy availability of the gunny bags. Storage of groundnut pods and kernels in jute gunny bag has serious concerns resulting from the infestation by bruchid beetle (*Caryedon serratus*), rice moth (*Corcyra cephalonica*), flour beetle (*Tribolium* sp.) and buildup of aflatoxin contamination in the stored produce due to growth of *Aspergillus flavus*. The need of an alternate method of storage is imminent in the light of the problems faced by groundnut growers and exporters in storing groundnut in gunny bags.






Research conducted at ICAR-Directorate of Groundnut Research, Junagadh brought out a novel and simple technology to store, transport and export groundnut pods and kernels. A high density polyethylene (HDPE) bag with the thickness of 160  $\mu$  provides safe storage to the pods and kernels from the infestation by storage insect pests and fungi.



For the safe storage, initially pods are to be cleaned. During the process of cleaning; shrivelled, discoloured, decayed, pest infested pods as well as plant debris and soil particles adhering on the pods are removed and the healthy pods are to be separated out. The healthy pods are dried to below 7% moisture content before packing. Cleaned dry pods @ 15 kg per bag are placed in the HDPE bags (790 mm length x 585 mm width) and stitched with thread in two layers by hand or with the help of stitching machine. Placing of small packet of aluminum phosphide 56% in the center of the bag @150 mg per 15 kg pods kills the insects present inside the bag. Due to slippery nature of the bags, storage pests could not make an entry in the bag and damage the pods. Another added advantage is that growth of *A. flavus* and aflatoxin contamination inside the storage bags is contained in due course of storage because of arrest of exchange of atmospheric air into the HDPE bag. Using this technology, pods can be stored upto 8 months without compromising seed viability. Hence, farmers may use this technology to store the groundnut meant for seed purpose. The HDPE bag is equally suitable to store the kernels and to do vacuum packing.

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