

# Coconut Preservation for Nursery and Household Use

*Keeping  
the water inside  
the coconut without  
letting it dry up  
is essential  
both for the nut to  
germinate and to yield  
a healthy seedling  
and to give  
fresh, crisp kernel for  
culinary needs.  
How to preserve  
seednuts for the nursery  
and fresh nuts  
for the kitchen  
are described here*

By MR. V. T. MARKOSE, MR. V. PADMANABHAN,  
AND MR. M. KRISHNA MARAR,  
Central Coconut Research Station, Kasaragod

RECENT surveys carried out in the different coconut-growing States of India have revealed that about 25 per cent of the coconuts produced by growers is generally retained by them for home consumption, the rest being sold off the garden. The number that enters into the trade ultimately reaches the consumer as 'water nuts' in unhusked, partly husked, tufted or fully husked condition or as dry nuts in the form of ball copra or as coconut oil. For home

consumption, particularly for culinary purposes, 'water nuts', that is, ripe nuts containing water inside are preferred because when the nut water gets dried up, the kernel becomes hard, leathery and fibrous and loses its fresh taste.

It is a common observation that the water inside a plucked coconut gradually dries up until the kernel gets separated from the shell and begins to rattle. This is not liked by housewives as the kernel of the nut in which the water has dried up is not fresh and crisp. Therefore nuts meant for culinary purposes have to be purchased as and when required. Purchasing them in whole lots when prices are favourable for long term use is practically ruled out and therefore any method of preserving fresh coconuts without the water inside getting dried up, for a considerable length of time will be quite welcome to the domestic users of coconut.

Similar preservation of coconuts becomes necessary also in the case of seednuts procured early in the procurement season as they can be sown in the nursery only with the advent of the monsoon in June. They have to be carefully stored for 3 to 4 months without allowing the water inside to dry up. Dried nuts are unfit for sowing in the nursery, because they will either fail to germinate or even if they germinate do so very late and give rise to weak seedlings.

It can thus be seen that the storage of coconuts without allowing the water inside to dry up is a problem deserving of investigation. Work on this has been in progress at the Central Coconut Research Station, Kasaragod and elsewhere for some years now and the

results of practical importance achieved so far are briefly described below.

#### PRESERVATION OF SEEDNUTS

The nuts meant for use as seednuts must necessarily be stored with the husk on. The procedure described below has been found to be very satisfactory for this purpose and is now being adopted regularly at this Station.

The harvested seednuts, after being kept in shade for about a month for the husks to become dry, are arranged with the stalk end up on the floor of a shed over a layer of fine sand about 3 inches thick. Sand is then spread over the nuts to fill in the interspaces and also to leave a layer of sand 2 to 3 inches thick on the surface. If there are large numbers of nuts to be stored two or three or even more layers can be built up on the first layer following the same procedure. The nuts can be stored in the garden itself if the soil is sandy and the ground is sufficiently shaded by overhanging leaves of trees or in a thatched enclosure. In this fashion seednuts can be stored with little driage for periods as long as eight months. Ordinarily, however, nuts are not required to be stored on the West Coast for more than 3 or 4 months at the most.

#### PRESERVATION FOR HOUSEHOLD USE

Studies on the storage behaviour of coconuts with the husk on, with the husk partly removed, tufted and with husk fully removed led to the following conclusions of practical interest:-

- (i) If the period of storage is only short, say a fortnight or so, no special precautions are necessary.

(ii) If the period of storage is about a month or so, it is better to store the nuts with the husk on wholly or partly.

(iii) If the period of storage is 2 to 2½ months the nuts may be stored in sand with the husk on preferably in the vertical position with the stalk end up.

The nuts intended for storage should be satisfactorily ripe and should have nut water inside when being put into the store which should preferably be in a cool place.

#### PRESERVATION OF NUTS WITH HUSK WHOLLY REMOVED

The large majority of nuts handled in trade do not have the husk on, because in that state the bulk is less, and ease and cheapness of transport over long distances are greater. Retail and wholesale dealers mostly sell coconuts in this condition. The studies mentioned above showed that water in nuts in this condition is liable to dry up quickly under ordinary conditions. Sand storage, besides being less efficient in this case, has other obvious limitations also. Other methods of storage for nuts without the husk were, therefore, investigated in detail and paraffin wax treatment has been proved to be quite effective and eminently suitable for the purpose. The chief merit of this process is that it is simple, cheap and could be easily worked

by the housewives themselves with the facilities ordinarily available in any household.

The process consists of the following steps:-

(i) Completely remove the husk on mature fresh coconuts, including prominent protruding fibres if any.

(ii) Take sufficient quantity of paraffin of low melting point in a small container and melt it over a low fire and maintain it in a molten condition till all the nuts are treated.

(iii) Dip the nuts one by one in the molten paraffin for a few seconds, take them out and dip in a container containing cold water. Repeat this operation once again.

(iv) Store the treated nuts in a cool place.

The treated nuts will remain without the water in them drying up even up to 8 months and the kernel will retain its fresh taste all through.

The cost of treating 100 nuts on a small scale inclusive of labour charges worked out to about Rs. 3. In actual working in households it would be considerably less because the members of the families themselves can do this and the paraffin wax used for treating the nuts can be recovered to a great extent for use again.