

# POLYBAGGED SEEDLINGS — A NEW TREND

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A basic need in the establishment of a high yielding plantation is the use of high quality planting material. In such a plantation it is imperative to use well-grown, healthy seedlings. Research work has established that high quality seedlings are capable of providing high yielding palms.

In addition to the conventional coconut nursery, the Coconut Research Institute has recently introduced a system of raising coconut seedlings in polythene bags, which is gaining popularity. Selected seednuts are kept in a pre-nursery until they sprout and are then transferred to polybags at the crow's beak stage. Polybagged seedlings are being produced in a number of estates of the Coconut Research Institute with very satisfactory results. A brief introduction of this technique and our experience are given in this article.

## Pre-nursery

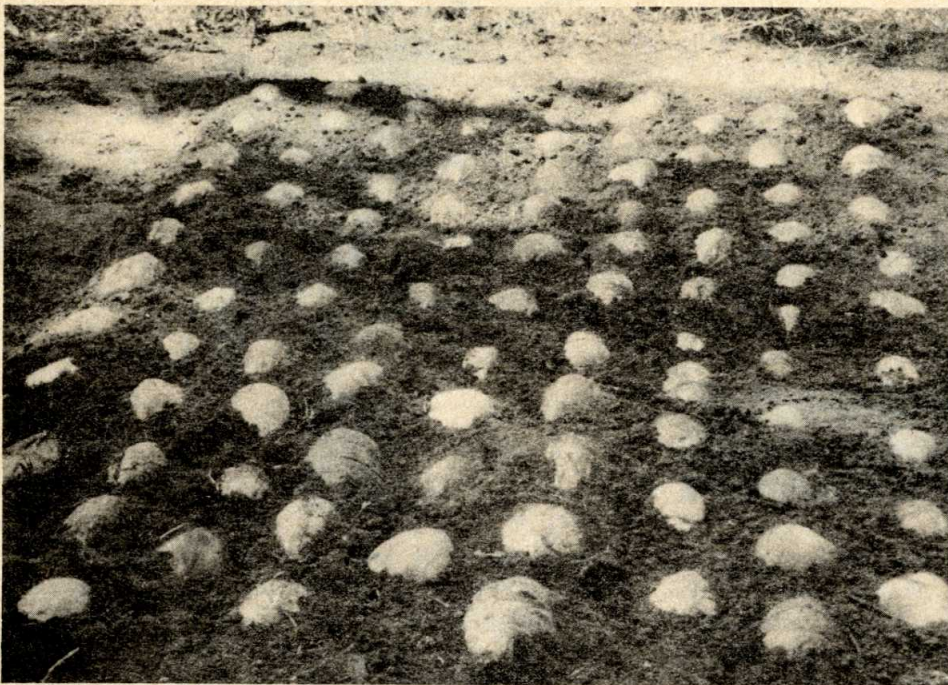
A shaded land is suitable for a pre-nursery. The area between two rows of coconut palms could be used to arrange nursery beds lengthwise. These could be of a convenient length and about 2 m in width to facilitate irrigation and weeding. Unlike in a conventional nursery, an extensive land area is not required in this technique. The space between nuts as well as between rows in pre-nursery beds should be about 5 cm (2 inches). Seednuts are laid in shallow trenches and covered with a layer of soil until the surface of the nut is only slightly visible, and are mulched with dried coconut fronds. In the absence of sufficient



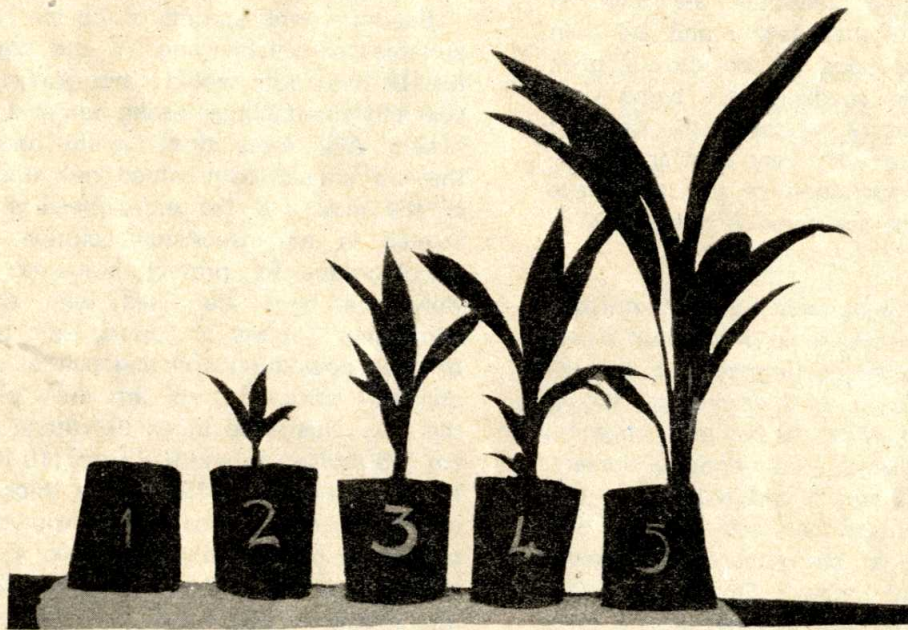
rain, the beds will have to be watered as usual. After a continuous dry period of 6 days, watering has to be done once in 3 days from the 7th day. Increase in irrigation frequency will hasten germination. Seednuts that germinate upto the fifth month from laying are selected for polybagging while the rest is rejected. Normally, about 85% of the seednuts germinate within 5 months, provided there is adequate irrigation.

## Polybagging

Seednuts with sprouts of 2.5 cm (1 in) are suitable for polybagging. At this stage, only one or two roots would have grown into the soil and the damage during removal is minimised. Any roots that remain attached to the nut should be trimmed near the surface of the nuts and the entire seed should be soaked in an insecticide solution such as as chlordane for protection against termites. Polythene bags are filled with a mixture containing 3 parts of surface soil, two parts of dried cow dung and one part of coir dust, and the sprouted nuts are then planted in the bag. Gussetted black polythene bags, 43 cm (18 inches) in width, 43 cm (18 inches) in height and of 500–750 gauge thickness, are suitable for this purpose. The sprouted seednut should be planted in the polybag so that the upper surface of the nut is barely visible, and should be about 1.5 cm ( $\frac{1}{2}$  inches) below the brim of the bag. This space could be mulched with coir dust. Polybags so prepared could be arranged close to each other for



Pre-nursery  
on the ground.



Different stages of growth after polybagging (5) is ready for planting in the field.

