

**Rural Broadcasts:****III.—COCONUT NURSERY AND PLANTING PRACTICE**

**I**N the two previous talks in this series on coconut planting we discussed the selection of seed coconuts and of land suitable for coconut planting. We pointed out that careful attention to both these phases of establishing a coconut planting would well repay the planters.

In the present talk we intend to discuss the final phases of establishing an area of coconuts, i.e. nursery and field planting methods. As with all other aspects of planting, careful attention and the adoption of correct practices will inevitably repay the planter. The aim is to produce a healthy and vigorous seedling and the benefits to be derived from this are—

Firstly, earlier flowering and fruiting.

Secondly, proper development of the root system, bole and trunk of the young palm giving greater longevity, the capacity for increased yields, and better resistance to adverse factors such as drought.

Thirdly, earlier and more complete filling in of the overhead canopy formed by the crowns of the palms, with resultant benefit in the protection of the soil, and the improvement of maintenance conditions. Many weeds, particularly some of the coarser grasses, such as kunai (*Imperata cylindrica*) are lovers of sunlight and their growth is favoured by plantings showing many misses and where proper replanting was neglected in the early stages.

In selecting a coconut nursery site, a level, well-drained area should be sought. In wet country the site should be well provided with effective drains. Wind protection is important, and if the site has no natural windbreak an artificial wind barrier should be provided. Light overhead shading, using material such as grass or palm leaves, is also desirable.

The selected seed coconuts are placed on their sides in the nursery. They should not be crowded too closely together and every six or so rows a space should be left for a path so that the seedlings can be adequately inspected. In the wetter areas the coconuts will germinate and commence

to grow without any further attention, however, under drier conditions watering is necessary to keep up humidity in the nursery, and watering with a can or spray should be resorted to if any dry spell occurs during the raising of seedlings.

The young shoot of the coconut grows out through the husk and first several seedling leaves appear. These are dark green, rather cabbagey in appearance when uncurling and differ from ordinary foliage leaves in being undivided. After three or four seedling leaves emerge, the first foliage leaf appears, having the characteristic strong midrib with narrow leaflets arranged along each side.

Seedlings are ready for planting out when the first foliage leaf has fully opened and the following leaf appears spear-like, in the centre of the young palm. At this stage the seedlings in the nursery should be closely inspected and all those which are unthrifty, yellowed, or show any other abnormalities such as twisting or crumpling of the leaves should be discarded.

Planting holes for coconuts should be dug at least three months before planting takes place and should be spacious to allow for adequate development of the root system of the young seedlings. Minimum recommended dimensions are two feet six inches by two feet six inches by two feet six inches, and it is advisable to increase these in heavy loam or clay soils.

Several layers of coconut husks are placed in the bottom of the hole and the soil is returned in the order in which it was removed. If available, leaf mould should be well mixed in with the soil as it is returned, and if practicable coconut husk ash can also be added. Finally the seedling should be placed centrally in the hole with the shoot erect and the upper surface of the seed nut coming just below the general soil surface, the soil being filled in to leave a shallow dish-shaped depression sloping down to the top of the nut.

Planting on the triangle is generally recommended as making the fullest use of prepared land. On the lighter soils such as pumices, sands and sandy-loam a spacing of twenty-seven feet on the triangle is

recommended, while this should be increased to thirty feet on heavier land. From experience these spacings give the best canopy development under conditions in the Territory. Any planter who is establishing coconuts on fertile, well-drained soils under good rainfall conditions in this Territory should have in mind the possibility of a later interplanting with cocoa. With the spacings quoted, canopy development by the coconuts themselves should be such that there will be little need for any other type of shade in most cases.

#### *Supplying and Replanting.—*

The practice of replacing palms which have been lost for some reason or have been cut out on account of faults, by planting new seedlings in the same position as the originals is known as supplying. It is properly used to fill in gaps in developing plantations. Supplying should generally not be practised in mature or ageing stands of coconuts. There are exceptions, e.g. where large areas have been lost through lightning strike or fires or war damage. The soil in the immediate vicinity of a palm which has been bearing for thirty to fifty years is at least temporarily exhausted, while supply plantings

among aged coconuts will barely have begun to yield when the surrounding stand becomes unproductive.

The correct procedure with ageing coconut stands is to replant them, providing always that there are adequate indications that the soil is sufficiently good to support replanting. In replanting the nursery the planting procedure already described is followed and the new seedlings when planted out are placed at the maximum possible distance from the trees of the old planting. Large holes with plenty of consolidated top soil filled in and consolidated before final planting is recommended. Thus in triangle planting each new seedling will be at the centre of a triangle of three of the old palms and the rows of new seedlings will run centrally between those of old palms. The replants are allowed to develop until they commence flowering and the old palms are then cut out.

N.B.—This Broadcast on Coconuts necessarily leaves out a lot of valuable data due to the radio time available. It is expected that more detailed articles in this *Journal* will be probable from time to time dealing more specifically and deeply with the individual subjects on coconut culture.