

RP. 139

SELECTION OF LAND

for

COCONUT CULTIVATION

By P. ABRAHAM

IN these days of large scale expansion of the area under commercial crops in this country, selection of suitable land for the cultivation of these crops, is a problem of fundamental importance. It is very doubtful whether sufficient care is being taken to avoid wastage of money and energy caused by raising these crops on land unsuitable for the purpose. This would seem especially the case with the coconut palm.

Essential Requirements of the Coconut Palm

As the coconut is a very paying crop people seem to raise plantations of this tree

without much consideration of the essential requirements for the normal development of the crop. Coconut plantations on dry and scraggy hill slopes and other poor soils, with very poor growth, producing practically no nuts whatever are a common sight on the West Coast. Anything upto fifty per cent of the coconut plantations on the West Coast of India would seem to be of this nature.

There are certain well known essential conditions necessary for the normal growth and productivity of the coconut palm. It is stated that the coconut is a "seaside palm

flourishing in a sea-washed, well drained coast with constant moving water in the soil and in an atmosphere of saline moisture". However, the palm is seen to thrive well in India up to an elevation of about 3,000 feet above sea level. The coconut palm which once upon a time had been entirely a sea-side palm is in fact in the process of evolution, gradually migrating inland.

It is also stated that "the best soil for the coconut is a rich alluvium or loam having proper soil moisture and drainage such as are met with in the backwater areas of Travancore-Cochin, Malabar and South Kanara and the deltaic tracts of the important rivers of India where it is found to flourish best".

In the Tiptur and Arsikere areas of the Mysore State, at an elevation of nearly 3,000 feet, where rich deep soil and plentiful supply of soil moisture with proper drainage are available, coconut grows fairly well.

It may, therefore, be concluded that the most essential requirements of the coconut tree are a soil rich in plant food with sufficient soil moisture throughout the year. Lack of fertility of the soil can be made good by judicious manuring. In the absence of well distributed rainfall and facilities for irrigation, however, the coconut palm will not thrive well and give profitable yields on most of the hill slopes and other dry lands.

In South Kerala where the north-east monsoon extends from October to January the rainfall is well distributed and the soil-moisture conditions are fairly favourable throughout the year. If the coconut tree fails to grow in these regions, it may be due to lack of plant food in the soil or on account of very light and sandy soils which dry up quickly.

In North Kerala, the north-east monsoon lasts only for a fortnight in October-November resulting in a dry spell of nearly 4 to 5 months. Most of the hill slopes and other inland areas in this region, dry up during this spell and the coconut trees suffer intensely and do not develop normally.

Points for Investigation

It is, however, extremely interesting to observe that in the hill slopes of places like Badagara and Kuttiadi in North Kerala, inspite of the long spells of dry weather, coconut trees do exceedingly well giving very heavy yields. Further north, towards the east of Cannanore in places such as Thaliparamba and surrounding areas coconut trees fare very badly. The differential behaviour may be due to differences in the quality, build up and moisture retaining capacity of the soils. These points need careful investigation.

It has been observed and confirmed by experienced growers that land having granite rock underneath a sufficiently thick layer of soil, preferably with granite boulders, is very suitable for plantation crops like pepper and coconut. How the presence of granite helps the development of these crops is not very clear. Perhaps, on hill slopes with a granite bed there may be seepage of water along the surface of the rock not only draining away the excess moisture of the soil during the heavily raining season but also keeping the soil sufficiently moist during the dry season. It is also a possibility that granite contains several minor elements and other plant nutrients which may be available to these crops. The role of minor elements in the development of the coconut



Young coconut plantation on an inland hill slope in Coorg, 1500 ft. above sea level. Notice the terracing of individual trees for conservation of moisture and soil.

tree is also a subject which should be thoroughly investigated.

Growing Coconuts and Spices together

The author has previously discussed in these columns (The 'Bulletin' of the Indian Central Coconut Committee, Vol: 10, No: 1, August 1956) the advantages of growing spices in general, especially pepper, as intercrops in coconut and arecanut gardens. Perennial spices crops especially pepper, need plenty of soil moisture. In recent years with the increase in the price of pepper the popularity of coconut tree as a standard for pepper vine has vastly increased. Moreover, the coconut palm seems most kindly to pepper vines and there seems to be a very good adjustment between this palm and the vine in respect to their demand for nutrition

and moisture from the soil. It is thus clear that only on land where sufficient soil-moisture is available throughout the year for both the coconut tree and the perennial intercrop, can both of them be grown together profitably.

While selecting land for growing coconut, it is, therefore, very important to see that the conditions essential for the normal development of the tree are satisfied. Those responsible for the development of coconut industry in the country should see to it that growers are assisted effectively in this respect to avoid wastage of effort and money.

Hill slopes and other land which are too poor and dry for the coconut tree may be put under other drought resistant and very valuable tree crops such as the cashewnut which will give sufficiently good returns on such poor soils.