

# coconuts

## and spices

### make a nice

### combination

by

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**C**OCOONUT and arecanut farmers should think of growing with profit spice crops in their gardens as intercrops.

Most growers raise annual crops with the help of the monsoon rains from May to October as intercrops in the palm gardens. In household gardens, mango, jack and other useful trees are usually grown. However, no perennial crops as such are grown in the farm gardens.

Pepper and cardamom, the great spices, are most suitable for growing as intercrops, pepper in both coconut and arecanut gardens and cardamom in arecanut gardens.

In parts of north Travancore (Kerala), apart from pure pepper plantations, growers also adopt mixed cropping. Pepper, as an intercrop, is trained on *Erythrina indica* and other standards in coconut plantations, both pepper and coconut being planted at the same time. Pepper is kept in the plantation for 12 to 15 years, by which time coconut trees come into full bearing and the vines die off.

#### PEPPER AND ARECANUT

In certain parts of Mysore, the arecanut tree is the standard for pepper vines not only in household gardens, but also in arecanut plantations where cardamom and banana are other subsidiary crops. These gardens being situated on the low slopes of valleys, elaborate

arrangements are made for drainage, as natural drainage is defective. Individual gardens vary from two to ten acres. The gardens receive clean cultivation and regular manuring. Trees receive green leaf mulch at a depth of two to three feet in alternate years. In the other year, each tree receives a basketful of cattle manure. The pepper vines get the benefit of the attention given to the arecanut palms on which they are trained. They do not receive any special attention except for the tying of the vines on the standards. The leaf sheaths of the arecanut palms are torn to strips and are used for this purpose. The full-grown vine is tied at 20 places, as the arecanut palm does not offer a good hold for the early climbing roots of pepper. The vegetative runner shoots arising from the base of the vines are “lay red” and trained on to the standards.

This method of growing pepper needs to be copied in other pepper and arecanut-growing areas. The pepper will yield a substantial additional income.

Some years ago, pepper vines being trained on coconut trees could be seen here and there on the West Coast. This was not considered a good practice as it was feared that it would be bad for the growth and productivity of the coconut trees. This attitude, how-

ever, has changed in recent years and excellent pepper vines are being grown on coconut trees in homestead gardens all over the West Coast. Even if the growth and productivity of the coconut trees is affected to a certain extent, the produce from the vines would more than compensate for the drawback.

Pepper vines find not only the coconut, but also the palmyra, the bastard sago and the wild date-palm as good standards. Among these, however, the coconut seems to be the best, and seems to adjust itself with the pepper vine in getting its nutrition and moisture in the soil. On the other hand, when the coconut tree is manured, the pepper vine also benefits from it.

#### COCONUT STANDARDS

However, it is only in areas where soil moisture conditions are unfavourable, especially in the dry season, that the pepper vines can also be grown with success on the coconut tree. The coconut tree provides just the shade required by the pepper vine in the hot season, provided the trees are spaced about 25 feet x 25 feet. If the trees are planted closer, the shade will be too heavy for the normal development of the pepper vines. The ill-drained or water-logged soil is not suitable for the pepper vine even though tolerated by the coconut. You must also remember that where pepper vines are interplanted with coconut trees on standards, the vines will be productive only during the pre-bearing period of the coconut trees. Once the palms start bearing, the vines will die out. This will not happen when the vines are planted near the coconut trees and the tree used as standard.

Interplanting coconut with pepper is usually done on hill slopes which dry up during the dry season. Under such conditions, young coconut trees in their pre-bearing period may not compete with the vines in-between them for soil, moisture and nutrition but will do so when they come to full bearing. Pepper should be planted in association with coconut where the soil moisture conditions are favourable for the mixed crop throughout the year.

Where pepper vines can be productive only during the pre-bearing period of the coconut tree, varieties like *Naranyakodi* and *Karimunda*, which are quick-bearing and short-lived should be planted. Where the situation provides good moisture conditions throughout the year for the mixed growing of pepper and coconut, long-lived and productive varieties of pepper such as *Kalluvally*, *Kottavally*, *Kaniakadan*, *Chola* and *Kothanadan* should be planted.

#### IN MYSORE

In parts of Mysore, cardamom is grown as a subsidiary crop in arecanut gardens. This is a smaller cardamom, productive even at a lower elevation of 1,500 feet. The plantations being raised on elevations ranging from 1,500 to 2,400 feet, cardamom seedlings are planted with a spacing of six feet  $\times$  six feet. These plants take advantage of the heavy green mulch given to the arecanut palms. When arecanut husks are also spread in the garden, the cardamom gets this additional mulch, grows well under the shade of the arecanut trees and produces 15 to 20 pounds of dried cardamom per acre, which is a substantial additional income besides what is obtained from the pepper vines grown on the arecanut trees. Such a profitable mixed cropping is found mostly in the Sirsi and Siddapur taluks of North Kanara and the adjoining areas of North Mysore.

Ginger and turmeric are two other spices grown as intercrops in coconut and arecanut gardens. These are annual crops raised with the help of the monsoon rain, and do not interfere with the moisture requirements of the palms. These spices are planted on raised beds in-between the palm trees and grow on the green leaves and cattle manure applied. The weeding given to the crop ultimately help raise the productivity of the palms.

Growing of spices in arecanut and coconut gardens will go a long way in the development and extension of cultivation of spices in our country.