

## THE ARECANUT IN CEYLON

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**T**WENTY years ago a study in the cultivation of arecanut in some of the village areas was made by the writer and observations were recorded in *The Tropical Agriculturist* of February, 1924. Between then and now, very little, if any, progress has been made with arecanut as a cultivated crop. On the other hand in the last few years, specially in the last two years, many thousands of arecanut trees have been felled. In certain areas the felling has been so extensive that it amounted to complete eradication of the palm. This felling has not been compensated by any replanting. Also the old form of coming into existence of groves of self-grown arecanuts (*puwak arambas*) has suffered due to the price of arecanut rising so high that at one period even stray nuts falling from the trees were collected and marketed. Felling is going on at such a rate that Ceylon export trade valued at about Rs. 3,000,000 before the war may suffer considerably in years ahead unless replanting is carried out. The arecanut will remain an indispensable commodity in Ceylon itself and, it cannot be doubted that as an article of trade its importance will rise. The opportunity should now be taken to replant in the areas where felling has gone on and also open up new plantations of arecanut. These notes are therefore contributed in the hope that they will be of some use to intending cultivators and will encourage readers to consider if growing of arecanuts will not be a paying proposition.

### VARIETIES

In Ceylon there are three well recognized varieties of arecanut viz :—

- (i.) *Sinhalapuwak*, i.e., the country varieties which bear heavy bunches of small to medium size nuts sometimes containing as many as 1,000 nuts per bunch.
- (ii.) *Ratapuwak*, an introduced variety yielding small bunches of a larger and somewhat oval shaped nuts.
- (iii.) *Hambanpuwak*, is also an introduced variety producing small bunches of a more roundish nut.

For the production of *keli* or *peti puwak*, that is the sliced and dried immature nuts and also for the *karunka* or *kotta puwak*, the whole dried nuts, the Sinhalese or the country varieties are preferred as these types are more adapted for these purposes owing to their more astringent and closed grained nature.

The *Ratapuwak* or *Hambanpuwak* types are not generally dried for *karunka* nor are rarely sliced and dried as *keli* or *peti puwak*. Both these types are better appreciated than the country varieties in the raw state because they are less astringent and have a somewhat fragrant quality.

Their bearing capacities are poorer than the country varieties but come into bearing sooner—about a year earlier. The Sinhala puwak takes about 7 or 8 years to commence bearing. Ratapuwak and Hambanpuwak will begin to bear in the sixth year after planting. From the tenth year up to the twenty-fifth year regular and maximum crops may be expected. Thereafter the crops begin to be irregular and declining and poorer crops may be obtained for a further period of ten to twelve years.

#### HABITAT AND DISTRIBUTION

The arecanut is a common palm found in the mid and low moist parts of the Island. It is also grown under irrigated conditions in the drier parts. Greater portions of the districts of Kegalla, Ratnapura, Kandy, Colombo, Galle and Matara are well adapted to this crop. Arecanut can be successfully grown throughout the mid-country (below 3,000 ft.) and low country where the rainfall is not less than 75–80 inches and is well distributed.

The following figures show the approximate area under arecanut in each of the larger arecanut growing areas :

	Acres.
Kegalla District .. .. .	22,000
Ratnapura do. .. .. .	9,000
Kandy do. .. .. .	9,000
Colombo do. .. .. .	6,000
Kurunegala do. .. .. .	5,000
Matara do. .. .. .	5,000

The total acreage under arecanut in Ceylon may be estimated at about 70,000 acres altogether.

#### PROPAGATION AND PLANTING

Arecanut is propagated by nuts which are either planted *in situ* or by seedlings raised in nurseries and transplanted. Only fully ripe nuts from strong well developed trees of vigorous growth of the age of at least of 15 years and known to bear regularly larger bunches than the average trees should be used as seed nuts. The common practice in the villages in the past was to plant any nut in holes made with one dig of the alavangoes or a mamoty or collect self-grown seedlings and plant them in the same way. If good strong plants are to be established planting should be in holes prepared for the purpose.

There is a greater difference of opinion among experienced cultivators regarding the planting of nuts *in situ*, *i.e.*, straight out in the field and the planting of seedlings raised for the purpose. The majority opinion seems to be that very good results have been obtained by planting nuts that have germinated but not developed into plants. Some advocate the planting of seedlings of at least 6 months' growth, others still older seedlings. In India seedlings are allowed to remain in the nursery for about two to four years before they are planted out.

For the purpose of germinating the seed nuts or for raising plants prepare a nursery by digging up the soil, break it fine, add compost or well rotted farm yard manure and work the soil till the manure is well mixed. Level and form beds of any convenient size, bury the seed nuts in rows 6 inches

apart and nine inches in the rows for raising plants, or place the nuts almost touching each other for germinated nuts; throw over loose soil or sand and spread straw or cover over with cadjans. Water during dry weather. Germination will take place in a month at most. Decide whether to plant germinated nuts or seedlings. If seedlings, throw over loose sand or loose earth and allow the seedlings to grow. The plants will be 6 to 8 inches high at the end of 6 months but in the next two or three months will shoot up rapidly.

The distance of planting arecanut as a pure crop is 8 ft. by 8 ft. Germinated nuts or the seedlings should be planted on well prepared holes  $1\frac{1}{2}$  ft. deep and  $1\frac{1}{2}$  ft. to 2 ft. diameter. The hole should be filled with a mixture of top soil and well rotted cattle manure or compost. If seedlings are planted they should be removed from the nursery with a ball of earth and placed in the holes about 6 inches deep, after which add loose soil to fill in. If germinated seeds are planted bury them deep enough just to cover the nut. Arecanut is an excellent boundary tree. In mixed plantations such as exist in villages arecanut can be planted along paths or drains.

In its early stage the arecanut palm thrives under shade. It should be a great advantage to establish rows of plantain between the arecanut as a useful catch crop. Arecanut takes from 6 to 8 years to come into bearing during which period catch crops could be grown. If this is done weeds can be controlled. Clean weeding is not necessary but a circle round each plant must be kept free of weeds. A certain amount of drainage is necessary. Water logging is detrimental to arecanuts. Once the plants are established little further attention is necessary.

#### YIELDS AND PRICES

The Sinhalapuwak varieties are heavy yielders. Under favourable conditions the crop may be as much as one or two thousand nuts per year per tree. The average may be put down at 400—500 nuts from the three pickings of the year. The yield from Ratapuwak and Hambanpuwak may be put down as 250—300 nuts per tree although as many as 1,000 nuts per tree are known to have been picked.

At 8 by 8 ft. there would be 680 trees per acre. Taking 450 nuts as the average for Sinhalapuwak per tree, the yield of dry commodity will be  $1\frac{1}{2}$  tons of *karunka* or  $\frac{1}{2}$  ton of *kelipuwak*. (N.B. In ancient times the standard measure of *karunka* was the *amuna*: 24,000 nuts were recognized equivalent to an *amuna* which weighed between 280 to 290 lb.)

The prices of arecanuts between 1930—1940 fluctuated as under:—

<i>Karunka</i>	..	..	Rs. 15 to Rs. 20 per cwt.
<i>Kelipuwak</i>	..	..	Rs. 20 to Rs. 32.50 per cwt.
Raw ripe fruit	..	..	Re. 1 to Rs. 2 per 1,000 Sinhalapuwak Rs. 1.50 to Rs. 4.50 per 1,000 Ratapuwak or Hambanpuwak

The prices then rose rapidly thereafter till control was established and fluctuated as follows:—

<i>Karunka</i>	..	..	Rs. 60 to Rs. 80 per cwt.
<i>Kelipuwak</i>	..	..	Rs. 70 to Rs. 90 per cwt.
Raw ripe fruit	..	..	Rs. 20 to Rs. 30 per 1,000 nuts

The control prices at the time of writing are :—

<i>Karunka</i>	..	..	Rs. 53 per cwt.
<i>Kelipuwak</i>	..	..	Rs. 43 per cwt.
Raw ripe fruit	..	..	Rs. 3.50 per 1,000 nuts

There is no reason to think that the prices as controlled will go down after the war. On the other hand it is likely that arecanuts will fetch better prices for it is an important commodity and will remain so for generations in Ceylon and in India and Burma. The local consumption of arecanuts has been computed to be over one thousand million nuts per year and the export trade has fluctuated between seven thousand five hundred tons of dried arecanut. In some years the exports amounted to over ten thousand tons.

#### USES

The chief use of arecanut or the "betel nut" as it is known in India is as a masticatory, being an important ingredient in the universal "chew of betel of the East". It is used for dyeing and is a basis of certain tooth-pastes. Arecanut has certain medicinal value and is employed as such.

The palm or tree is very extensively employed in the construction of semi-permanent buildings and various structures. The hard stem is easily the most handy form of wood for so many uses in our villages.

The leaf sheath is used for making buckets for drawing and carrying water. It is also a handy material for making bags for holding fruits, flowers, meat and sweet-meats. Indeed, it is the most popular "packing" in the villages.

The leaves are also employed as "wrappings" specially in the transport of vegetables and fruits. For the wrapping of whole plantain bunches, the arecanut leaf answers best.

The flower or inflorescence is a well-known offering at temples and altars and takes an important part in religious and customary ceremonies of the country.

More than any other tree the arecanut serves as stands for betel, pepper or yams.

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