

A PROSPECT FOR THE POROMBOKE OR THE CULTIVATION OF THE CASHEWNUT

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Waste lands in many parts of the country can be turned into productive areas by being put to the permanent cultivation of useful trees like the cashewnut. The cashewnut (botanically *Anacardium occidentale*), thrives well in such lands on account of its hardy nature. The tree claims its heritage originally from South America, and is now well established in the coastal forests of India. It grows in a wild state and can be grown in almost all soils, although gravelly and sandy loams suit it best.

The cashewnut of commerce (Tamil—*Munthirikottai*) is really the fruit of this tree. The flower stalk on which the 'nut' rests, is succulent and edible, and is known as cashew apple, and is mistaken by the layman for the fruit.

The tree in its wild state has a spreading habit usually growing to a height of 10 to 15 feet, and rarely to 25 feet, although under cultivation it is said to have attained a height of 40 feet. When well cared for, this is a valuable and promising tree, responding well to irrigation and manuring, though it can also thrive under very adverse conditions. In the Travancore State, it is cultivated in a systematic manner, and the finished product is exported to foreign markets. Around Tanjore and in the Pudukottah State the tree grows wild, and the produce which is collected by the women folk, is either consumed locally or sent to other places through the middlemen of the Tanjore market.

The usual method of cultivation is as follows :—

The land is ploughed thrice, and the seed dibbled behind the country plough in rows 15 feet apart, the same distance being maintained between two seeds. The tree can also be propagated vegetatively but is commonly raised from seeds. Seeds are sown during the break in the monsoon, in the months of September or October. The seedlings are not usually watered, but for the first six months have to be protected against the depredations of wild animals, which dig them up for their edible roots. The trees begin to bear from the fourth year onwards in good, and the sixth year onwards in poor soil. The tree is in flower in the months of December, January and February, and the fruits are ready in April-May. The produce is usually collected by women who are paid in kind, the perishable cashew apple being given as wages. The owner of the garden engages a watch during the harvesting season.

All allowances made, there will be about 200 trees to an acre, and the yield ranges from 250 to 300 Madras measures of dried nuts per acre. The price fluctuates considerably from 4 to 8 Madras measures per rupee. With the prevailing primitive system of cultivation, the ryot gets on an average a net return of about Rs. 40 per acre. The tree yields for 15 years and by the 20th year the flowering completely ceases. It is said that the tree lasts for 25 years, but it is never economical to keep it after the 20th year. The maximum yields are obtained after the 8th year.

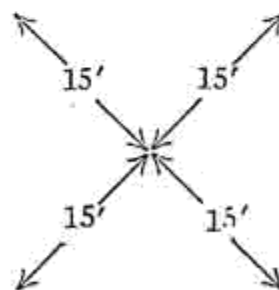
Uses.—It is reported that the following bye-products are also obtained from the tree;—*from the stem*—the bark of the tree yields a reddish yellow gum which is slightly soluble in water. The bark is used for tanning. The sap issuing out of the incision on the stem, is used as an indelible marking ink and the native workman uses this also for soldering metals. The stem yields a reddish hard timber which is used in Burma for packing cases, boat building and for the manufacture of charcoal; *from the fruit*—the cashew apple is eaten as a remedy for scurvy. It can be preserved as a jam and can even be sent outside, if a demand is created. By fermenting the juice a wine is prepared, by distilling which a spirit is obtained. This also has got the antiscorbutic properties; *from the nuts*—two distinct oils are manufactured from the nuts. (i) Kernel oil—this is reported to be very nutritious and even superior to almond oil. The yield is about 40 per cent, but since kernels are eaten in India the manufacture of this oil will be very limited. (ii) Pericarp oil—manufactured from the pericarps of the nuts, is black, acrid and powerfully vesicating. The Andamanese are using this for preserving their fishing line; it can be used to preserve carved woodwork, and books, against white ants and other insects, and is also employed as an anæsthetic in leprosy. The shell oil crudely prepared by maceration with spirit, is sometimes applied for cracks in feet.

The kernels are made into confectionery with sugar, and are inevitable constituents of Indian preparations during festivities.

The following improvements in the method of cultivation are suggested:—

(i) *Nursery.*—Instead of dibbling the seeds in the plantations direct, a small nursery is raised and seedlings are transplanted after four months. The advantages of the nursery are obvious. The nursery is well prepared and can be watered regularly; it gives the seedling a good start, and being compact can easily be protected against wild animals. In the older method a number of gaps in the plantations is inevitable, but by raising a nursery this difficulty is got over. Two Madras measures of seed are required for an acre.

(ii) *Planting.*—While the seedlings are in the nursery the main field can be leisurely prepared. Pits are dug at the corners of an equilateral triangle of 15 feet side as shown below:—300 plants to an acre can easily be planted in this manner whereas the ryots' method will accommodate only 200. The seedlings are transplanted a month before the monsoon rains and watered once. Any failures after the rains are immediately replaced. Subsequent irrigation and manuring are not necessary, but the plants do respond to the application of manure and to an occasional watering.



(iii) *Inter-cultivation.*—This is occasionally done to remove weeds, to conserve moisture, and as a sort of root pruning. For the first four years, a few crops of pulses like red gram, can be raised without doing harm to the growing trees.

(iv) *Pruning*.—The tree can be forced to grow erect by judicious pruning and the timber—which is thus made more valuable—can be utilized for purposes like boat-building.

Details of cost of cultivation:—

The present method.			The improved method.		
	Rs.	A. P.		Rs.	A. P.
3 ploughings ...	4	8 0	Preliminary ploughing.	4	8 0
2 M. M. of seed...	0	6 0	Pitting, manuring and planting ...	20	0 0
1 ploughing for covering seed ...	1	8 0	Cost of 300 plants raised in nurseries ...	10	0 0
¹ Watch and watering first year ...	10	0 0	² Watch and watering first year ...	6	0 0
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	16	6 0		40	8 0
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The initial cost under the improved method is certainly greater, but is amply compensated by the increased outturn. Under the primitive method the net return is only Rs. 40 per acre, whereas a net gain of Rs. 60 per acre every year is a modest estimate in the plantations raised by the improved method.

Preparing the produce for the market and the marketing.—A small industry can be started in places where the tree is grown, on the pattern of the one at Travancore. The Quilon factory is said to export on an average 600,000 lbs. of cashewnut a year. The produce can be collected and marketed on a co-operative basis, eliminating the middlemen, who now take an undue share of the profits of the ryots' labour.

¹ Watch for 6 months.

² Watch for 2 months.