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Cashew cultivation in Madras State*

by

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Synopsis: In this paper, a comprehensive account of area, cultivation, production and marketing of cashew in Madras state has been given with suggestions for further development of this crop, which is a dollar earner for the nation.

Cashew cultivation is confined to the tropical and sub-tropical parts of the world. It is mostly grown in Brazil, East Africa and Dominica and in the southern states of India. The cashew plant is believed to be a native of South America. It was introduced into India about four hundred years ago from Brazil by the Portuguese. Though African countries produce large quantities of cashewnuts, they are not processed there into edible products because of the high cost of human labour. Hence the cashewnuts grown in Africa are imported into India and are converted into cashew kernels and cashew shell liquid. These cashew products are exported to consuming countries like the U. S. A., U. K., Canada, Australia and U. S. S. R. Thus India, which produces only 40 per cent of the world production of cashewnuts is yet a major country responsible for about 90 per cent of the world trade in cashew kernels.

Production of cashewnuts in India is of the order of 80,000 tonnes only. More than one lakh tonnes of cashewnuts are imported from East Africa. After processing, most of the cashew kernels are exported to foreign countries. India earns nearly Rs. 24 crores of foreign exchange at present, by way of cashew kernel exports. Cashew kernels are generally used in India on festive occasions and on occasions of social gatherings when they are used in a number of sweet preparations or as fried and salted kernels. With the rise in the per capita annual income, as a result of the planned economic development, the consumption of cashew kernels which is grown in the country is bound to increase in preference to imported nuts like almonds and walnuts. This foreign exchange earner with India figuring prominently in the world trade, and having the potentiality for increased internal consumption needs all the attention.

Madras state is an important cashew growing area in India. It is grown both on a plantation basis having the entire field under cashew and on a scattered basis where the trees are found growing in house compounds,

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in fruit gardens along with other fruit trees like mangoes or as a fence along the border of the fields. The district-wise area in 1963–'64 in Madras State for cashewnuts as enquired from the Panchayat Unions, is given in Table I.

TABLE I

S. No.	Name of the district	Non-forest area in acres			Forest area in acres (as plantations)	Grand total in acres
		*On Scattered basis	On plantation basis	Total		
1.	South Arcot	5,742	34,851	40,593	15,476	56,069
2.	Tiruchirapalli	10,780	23,540	34,320	4,243	38,563
3.	Chingleput	800	2,290	3,090	23,628	26,718
4.	Thanjavoor	362	14,240	14,602	760	15,362
5.	Ramanathapuram	1,083	6,819	7,902	5,708	13,610
6.	Tirunelvelli	718	595	1,313	2,789	4,102
7.	Kanyakumari	3,621	166	3,787	...	3,787
8.	Coimbatore	...	17	17	1,116	1,133
9.	Salem	89	245	334	700	1,034
10.	North Arcot	40	572	612	190	802
11.	Madurai	92	117	209	...	209
12.	The Nilgiris	...	...	...	...	...
	Total	23,327	83,452	106,779	54,610	161,389

Note : * Sixty trees of cashew grown on a scattered basis were taken to represent one acre.

Source : Figures gathered for the *Adhoc* committee for cashewnuts from the various Blocks.

It is seen from table I, that the Madras Forest department has contributed nearly a third of the total area. One seventh of the total area is on a scattered basis, leaving a vast area under plantation scale. In the non-forest areas, South Arcot, Tiruchirapalli, Thanjavoor, Ramanathapuram and Kanyakumari districts have registered large areas, whereas, the Forest department has started large plantations in the districts of Chingleput, South Arcot, Ramanathapuram and Tiruchirapalli. Thus the districts of South Arcot, Tiruchirapalli, Chingleput, Thanjavoor, Ramanathapuram and Kanyakumari are important for cashew cultivation in Madras state.

The total area of 83,452 acres found in the non-forest area on a plantation basis is spread out in 8,957 holdings. Plantations with an area of five acres and below and with an area between five and 15 acres are 4,891 and 3,252 respectively and form the most important section of the holdings as compared to areas of 15 acres and above. This spread over larger number of small plantations, should give the correct perspective for arranging marketing facilities and for any subsidies that may be contemplated by the Government for increasing the area.

The cashew areas are concentrated in certain blocks only, where soil and climatic conditions are favourable to its growth. Red loamy soils and red laterite soils and to a limited extent sandy soils are found quite suitable for cashew growing. Clayey soils, high temperatures and strong winds are not conducive to good growth. The different blocks in the districts, where cashew is found growing on a large scale are given in Table II.

TABLE II

S. No.	Name of the District	Name of the Block	Name of the *Taluk*
1.	South Arcot	Panruti	Cuddalore
		Kurinjipadi	Cuddalore
		Cuddalore	Cuddalore
		Vanur	Tindivanam
		Kammapuram	Vridhachalam
2.	Tiruchirapalli	Jayankondan	Udayarpalayam
		T. Palur	Udayarpalayam
		Sendurai	Udayarpalayam
		Andimadam	Udayarpalayam
		Tiruvarungulam	Alangudi
3.	Chingleput	Gummidipundi	Ponneri
		Poondi	Trivellore
		Chittamoor	Madurantakam
4.	Thanjavoor	Tiruvonam	Orthanad
		Thanjavoor	Thanjavoor
5.	Ramanathapuram	Kannankudi	Tiruvadanai
		Kallal	Tirupathur
		Sakkottai	Tirupathur
6.	Kanyakumari	Rajakkamangala...	Agatheeswaram
		Kiliyoor	Vilavanco
		Munchirai	Vilavanco
		Thuckalay	Kalkulam

There is scope for further extension of area under cashew in the various districts as given in Table III.

TABLE III

Sl. No.	Name of the district	Non-forest areas (acres)			Forest areas (acres)	Grand total (acres)
		On Scattered basis	On plantation basis	Total		
1.	Ramanathapuram	20	20,675	20,695	7,000	27,695
2.	Tiruchirapalli	2,163	8,678	10,841	3,000	13,841
3.	Chingleput	295	3,560	3,855	...	3,855
4.	Thanjavoor	372	2,311	2,683	1,000	3,683
5.	South Arcot	235	2,098	2,333	...	2,333
6.	Tirunelvelli	125	1,680	1,805	500	2,305
7.	Salem	412	1,500	1,912	...	1,912
8.	Madurai	105	425	530	...	530
9.	North Arcot	...	405	405	...	405
10.	Coimbatore	5	55	60	...	60
11.	Kanyakumari	...	8	8	...	8
12.	The Nilgiris	...	...	...	...	...
	Total	3,732	41,395	45,127	11,500	56,627

Source : Figures gathered for the *Adhoc* committee for cashewnuts.

The cashew tree begins to bear fruits from the third to fourth year after its establishment, but starts its normal bearing only from the tenth year onwards. The yield of cashewnuts per acre varied from 100 to 350 kg and the most common yield is about 150 kg per acre. In order to have higher yields, it is very necessary to maintain the optimum number of trees per acre at 80 for laterites or red loamy soils and 50 to 60 trees in sandy soils. Adoption of inter-cultivation, soil conservation measures, manuring with both inorganic fertilisers and organic manures and timely spraying with pesticides would be very helpful in pushing up the yield of cashewnut per tree which varied from two to five kg. Based on the common yields obtainable, the production of cashewnuts in the coming years in Madras state may be estimated as follows taking into account the new plantations already started.

Year	Area in acres having normal fruit-bearing trees	Production in tonnes
		Cashewnuts
1963–'64	82,000	12,500
1968–'69	1,30,000	20,000
1973–'74	1,60,000	24,000

About 12,500 tonnes of cashewnuts are produced in Madras state at present. It should be possible to increase the production by improved cultural practices as mentioned above, as the acre yield is varying from 100 to 350 kg with the most common yield being 150 kg. Thus there is scope for doubling the production within three or four years even, devoting greater attention to the cultivation of the same. The new plantations when they come to bearing within the coming ten years, would greatly increase the production as given in the statement above. Further, new areas contemplated to be brought under cashewnuts in the coming years should produce more quantities. The total production in the coming years may be estimated as follows :

Year	Estimated production of cashewnuts (tonnes)	Remarks
1963–'64	12,500	.....
1967–'68	25,000	Due to adoption of improved cultural practices.
1973–'74	50,000	Due to the new plantations already started.
1977–'78	70,000	Due to the new plantations that may be brought under cashew in the coming three or four years.

Hence the potential for cashewnuts production in Madras state is fairly high and with proper attention focused on this crop, it should be possible to earn dollars on a large scale by this means.

The steps necessary to achieve the production potential besides arranging for new plantations and adoption of improved cultural practices as already discussed should be examined next. Assembling the produce, processing, utilisation of by-products and marketing are the important factors to be reckoned with. The quantities of nuts available with the

individual producers are usually small. Hence, they do not take the trouble of carrying the produce to the assembling markets for sale. The village merchants or the agents of cashew processors purchase the nuts in the villages and take the produce to the assembling markets for sale to the processors either directly or through commission agents. The important assembling markets for cashewnuts in Madras State are very few as follows.

Name of the district	Assembling markets	Quantity of annual arrivals in tonnes
South Arcot	Panruti	5,000
Thanjavoor	Gandarvakottai	2,200
Tiruchirapalli	Andimadam Sendurai	3,800
Kanyakumari	Aramboli Vadasery Thoduvetti Thucklay *etc.*	1,500

There are no assembling markets for cashewnuts in Chingleput and Ramanathapuram districts, where the production has not yet assumed any commercial importance. The price spread of cashewnuts traced from the place of production till the kernels are sold to the consumers, reveals that the producer realises only about 70 per cent of the ultimate cost paid by the consumer and thus indicate the possibility of securing more price for the producer by eliminting the middlemen like commission agents, brokers and village merchants. Regulated markets established under the Madras Agricultural Produce Markets Act, 1959 for cashewnuts should go a long way in assuring the agriculturists of a larger part of the consumer's rupee. In these markets, the cultivators can bring their produce and have it sold to the processors or consumers directly through the intervention of the Market Committee staff, without paying any commission or weighing charges and without losing by way of unauthorised deductions like *dharmam*, sample, *etc.* Commercial grading of cashewnuts before sale, would be possible in these regulated markets, enabling the grower to get higher prices. The regulated markets at Andimadam and Jayankondan in Tiruchirapalli district are transacting business in cashewnuts to the best advantage of the growers in that area. In course of time, the other districts also like South Arcot, Thanjavoor and Kanyakumari where cashewnuts are being grown, would be notified and regulated markets for the same would be established.

There are more than a dozen cashew processing factories in Madras state. They are mostly engaged in extracting kernels, though some of them are also producing crude shell liquid. No factory has got the equipment to refine the crude shell liquid thus obtained and hence the value fetched for the crude products is very low. It is therefore necessary to take up improved methods of continuous roasting process and the oil bath process by which kernels of quality and larger extraction of high grade cashew shell liquid may be possible. Extraction of clear cashew shell liquid and exporting or utilising the same for use in the paints industry needs greater attention. The utilisation of the cashew apple is another aspect to be looked into. At present, the cashew apple is not put to any commercial use. In the villages, it is literally sold for a song, and most of it is consigned to the dung heap to be used as manure. The yield of cashew apple varies from 350 to 650 kg per acre and the most common yield is about 500 kg per acre. The present production of cashew apples may be estimated at 40,000 tonnes and is expected to increase four fold even, in the years to come. Hence, proper utilisation of the same is of utmost importance. The Central Food Technological Research Institute, Mysore has evolved processes for the removal of the astringent taste and for preparing edible cashew apple products like beverages, candy, juice, jams, *etc.* It is very necessary to economically exploit the cashew plantations.

It is very essential to establish improved cashew processing factories on a phased programme in all important assembling centres where sizeable quantities of cashewnuts and cashew apple might become available for processing, as otherwise the producers may find it difficult to market their produce, at reasonable prices. Places like Vandalur in Chingleput district, Panruti in South Arcot district, Gandarvakottai in Thanjavoor district, Rajakkamangalam in Kanyakumari district and Kadaladi in Ramanathapuram district may be considered for starting the factories. The kernels and cashew shell liquid obtained, should be graded and then sold, for obtaining good prices. Co-operative Marketing Societies with cashew growers as members may be established in all important centres and these societies can pool the produce, transport the same to the assembling centre and have the produce sold for the best prices through the regulated markets. Thus, well organised marketing should be a sufficient incentive for the agriculturists to start new plantations and improve the existing ones. The day is not far off, when most of us may munch the delicious cashew in larger quantities and yet earn crores of dollar by way of foreign exchange.