

A NOTE ON THE IMPORTANT COCONUT VARIETIES OF THE LACCADIVE ISLANDS

C. M. JOHN AND K. SATYABALAN
(Central Coconut Research Station, Kasaragod)

Introduction

THE Laccadive group of islands has established a reputation for its coconuts and coconut products such as 'Island Copra', 'Island Jaggery' (*Padachakara*), 'Island Vinegar', 'Island Coir', etc., particularly in the West Coast Districts of Malabar and South Kanara and large number of enquiries seeking information on the coconut varieties of the Islands are being received at the Central Coconut Research Station, Kasaragod, from the coconut growers of the West Coast. A short account of the conditions prevailing in the Islands, the varieties under cultivation and the performance of the important varieties tried under Kasaragod conditions is furnished in this note for the benefit of the coconut growers. The senior author of this note had an opportunity of visiting some of the important Islands of the Laccadives in December 1954, and the observations recorded in this note are based on a local inspection and study.

2. General Features of the Islands

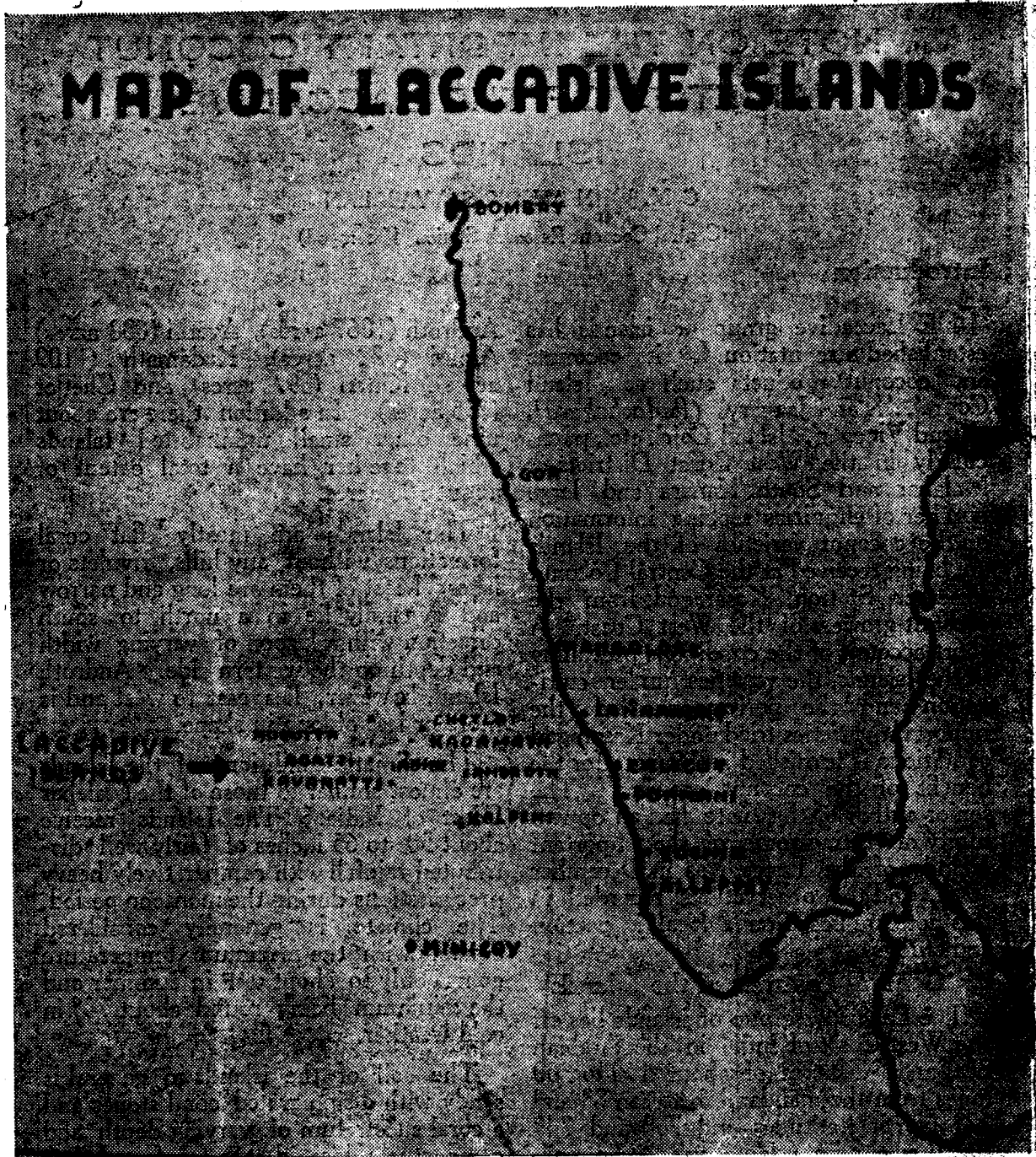
The Laccadive group of islands lies off the West Coast of India in the Arabian Sea at a distance of about 150 to 300 miles from the mainland between 8° and 12° North Latitudes and 70° and 74° East Longitudes (vide Map). The more important of these Islands are Kalpeni (494 acres), Kavarathi (866 acres),

Androth (1067 acres), Agethi (688 acres) Amini (622 acres), Kadamath (1109 acres), Kiltan (397 acres) and Chetlat (255 acres). In addition, there are about nine other small uninhabited Islands which together have a total extent of about 500 acres.

The Islands are mostly flat coral formations without any hills, rivulets or lakes. Most of them are long and narrow and generally lie in a north to south direction with a lagoon of varying width and depth on the western side. Androth Island, however, lies east to west and is more or less oblong in shape.

The climatic conditions of the Islands are almost similar to those of the Malabar Coast of India. The Islands receive about 50 to 65 inches of fairly well distributed rainfall with comparatively heavy precipitations during the monsoon period. The climate is generally considered equable with the maximum temperature going only to about 90°F in summer and the minimum being round about 70° in cold weather.

The soil of the islands in general is sandy with disintegrated coral stones and a coral substratum of varying depth and compactness located at a few feet below the surface. Underlying this is a layer of sand having drinkable fresh water. The



depth of the sandy top layer varies from about three feet to 10 or 12 feet.

Coconuts in the Island

Coconut palms are said to have been growing in the islands from time immemorial. The entire area of the islands, except small portions having coral out-crops or thick screw-pine jungle, sustains the coconut palm. The total area under the coconut in all the islands put together is estimated at about 6000 acres. Coconut is the principal crop of the island and the only source of sustenance to the people. There is a fairly good trade in coconut, copra, coir, coconut jaggery and coconut vinegar during the non-monsoon period. The islanders, however, do not pay much attention to their plantations so much so overcrowding of trees, ravages by pests and diseases are in great evidence. Consequently the yields which could have been much higher if improved methods of cultivation and manuring, etc., were adopted, are now generally showing a downward trend.

Varieties under Cultivation

The common variety of coconut met with in these islands comes under the category of the Tall variety which consists of forms showing variation in size, shape and colour of nuts. The majority of palms, however, have medium to small sized nuts. There are also some distinct varieties, the nuts of which are the smallest on record. These have nuts of round or oblong shape. About 20 per cent of the coconut trees in Kalpeni and Androth Islands come under the latter group. The nuts of this variety are generally stored for conversion into ball copra which finds a ready market at Kozhikode on the mainland. The Dwarf Yellow and Dwarf Green palms are also seen in limited numbers in some of the islands.

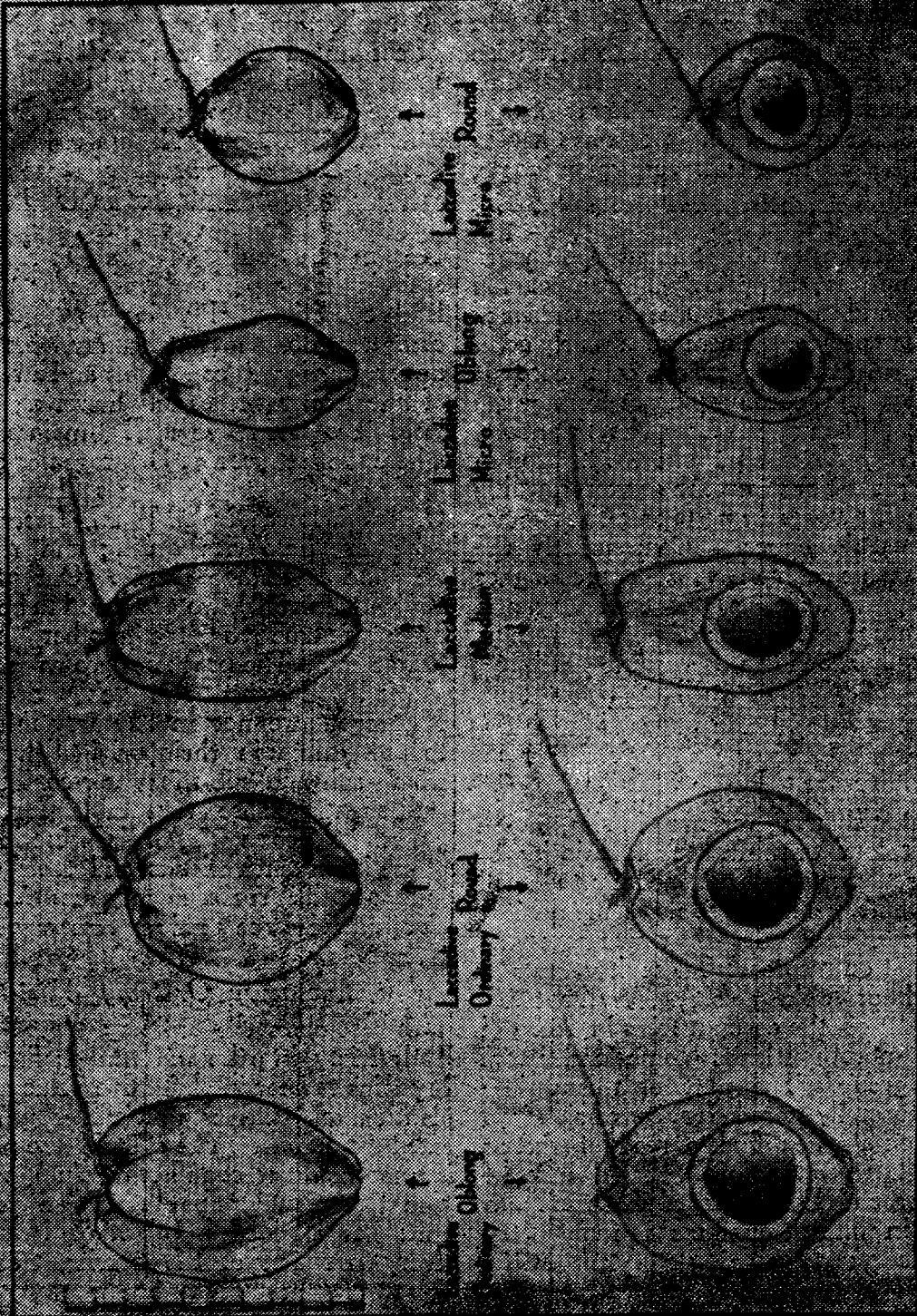
Performance of the Varieties under Mainland Conditions

A collection of the important varieties of coconut of the Laccadive Islands was made about 30 years ago and the seedlings planted at the Coconut Research Station, Pilicode in South Kanara District of Madras State. Progenies of these palms were subsequently planted in 1940 at the Central Coconut Research Station, Kasaragod, South Kanara District for studying their performance under mainland conditions. Planting in the latter case was done in light sandy loam soil under unirrigated conditions and a record of the growth features, flowering and yield has been regularly maintained. There are at present 12 progenies comprising of the varieties Laccadive Ordinary, Laccadive Medium, Laccadive Small or Micro with oblong and round nuts and Laccadive Dwarf. Out of the twelve palms only two are found to be not breeding true to the mother palm characters. The progenies grown at the Central Coconut Research Station, Kasaragod are not in any way inferior to the palms in their original habitat where soil and sub-soil water conditions are slightly more favourable for the growth of coconuts. A brief description of the important varieties and their performance as recorded at the Central Coconut Research Station, Kasaragod is given below.—

(i) *Laccadive Ordinary Variety*—

This resembles the ordinary West Coast Tall variety in palm and nut characters. It begins to bear in about five years after planting and thrives well under unirrigated conditions. The stem of the palm is smooth and erect and of medium girth. The tree planted about fourteen years back has attained a height of 12 feet. Every leaf axil of the bearing tree is

NUTS OF IMPORTANT COCONUT VARIETIES OF LACCADIVE ISLANDS



to produce a spathe enclosing the spadix. The tree produces 14 to 18 flower bunches in a year. The nuts are generally of medium size with colour ranging from green to yellow and shades of brown. The average annual yield of this variety under Kasaragod conditions comes to 127 nuts per palm with copra content of 5.4 oz. and oil content of 72 per cent of the copra by chemical extraction. The total yield per tree per annum works out to about 43 lb. of copra and 31 lb. of oil by chemical extraction. The variety is also found to give fairly large quantity of juice when tapped.

(ii) *The Laccadive Medium Variety.*— This variety also resembles the ordinary Tall variety in stature, but the nuts are comparatively smaller in size and spheroid or linear in shape. It produces 12 to 15 spathes in a year. The palm produces on an average 182 nuts per year. The copra content of the nut works out to 3.4 oz. on an average with an oil content of 75 per cent. The total yield per tree per annum works out to 38 lb. of copra and 28 lb. of oil by chemical extraction. The palm grows slightly slower than the Laccadive Ordinary variety.

(iii) *The Laccadive Micro Variety.*— This resembles the Tall variety in all palm characters, but the nuts are very

small when compared to those of the above mentioned two varieties. The shape of the nuts is either round or oblong. The tree of this variety produces about a dozen spathes in a year. The tree with the oblong nuts at this Station is found to be an irregular bearer giving heavy crops in alternate years, and produces on an average about 116 nuts per tree per annum, while the one with the round nuts is a regular bearer and produces about 164 nuts per tree per annum. The copra content on an average works out to 2.8 to 3.3 ounces per nut with an oil content of 75 per cent. The nuts of Laccadive Micro are particularly good for making ball copra which always commands a good price in the market. The Laccadive Small or Micro (round shaped nuts) yields about 33 lb. of copra and 24 lb. of oil (chemical extraction) while the oblong shaped nuts give about 20 lb. of copra and 15 lb. of oil. (**)

The comparative performance of the progenies of the three main forms of coconut varieties of the Laccadive Islands grown at the Central Coconut Research Station, Kasaragod is given in Tables I and II.

(**) The average figures for an ordinary Tall variety of the West Coast grown under similar conditions at Kasaragod per tree are 130 nuts, 46 lb. of copra and 33 lb. of oil by chemical extraction.

TABLE I

Statement showing date of planting and flowering and yield of important Laccadive varieties

Varieties	Date of		Year	Total No. of spathes produced	Total No. of female flowers	Setting percentage	Total yield of nuts
	Planting	First flowering					
1. Laccadive Ordinary	16-7-1941	11-12-1945	1946 } Data not available				
			1947 }				
			1948 } 18	611	22.0	135	
			1949 } 16	581	18.2	106	
			1950 } 18	585	22.5	132	
			1951 } 18	592	19.4	116	
			1952 } 18	600	22.3	134	
			1953 } 18	506	25.0	127	
			1954 } 16	692	19.7	137	
Average			..	17.4	595.3	21.3	127
2. Laccadive Medium	26-6-1940	10- 2-1945	1946 } Data not available				
			1947 }				
			1948 } 15	304	57.8	176	
			1949 } 15	694	38.6	268	
			1950 } 12	204	58.3	119	
			1951 } 13	644	37.1	239	
			1952 } 14	270	85.6	149	
			1953 } 15	288	64.3	183	
			1954 } 12	281	50.5	142	
Average			..	13.7	283.6	56.0	182
3. Laccadive Small or Micro (round)	16-7-1941	10- 4-1947	1947 } Data not available				
			1948 }				
			1949 } 13	486	56.9	277	
			1950 } 4	105	38.9	41	
			1951 } 12	410	50.9	209	
			1952 } 14	173	61.8	107	
			1953 } 15	242	76.7	189	
1954 } 11	263	68.6	160				
Average			..	11.5	279.8	59.0	164

A NOTE ON THE IMPORTANT COCONUT VARIETIES OF THE LACCADIVE ISLANDS

TABLE I—(cont.)

Varieties	Date of		Year	Total No. of spathes produced	Total No. of female flowers	Setting percentage	Total yield of nuts				
	Planting	First flowering									
Laccadive Small or Micro (oblong)	1938	1944	1944	Data not available							
			1945								
			1946								
			1947								
			1948					13	582	56.0	326
			1949					12	113	23.0	26
			1950					12	353	33.9	120
			1951					12	157	21.6	34
			1952					10	555	75.8	42
			1953					8	523	32.1	168
1954	9	194	48.9	95							
Average			..	10.8	353.8	41.6	116				

TABLE II
Statement showing the details of nut and copra characters of Laccadive varieties

No.	Season	Weight of unhusked nut lb. oz.	Volume of unhusked nut in cc.	Weight of husked nut lb. oz.	Volume of husked nut in cc.	Volume of water in cc.	Volume of cavity in cc.	Thickness of kernel in mm.	Weight of copra in oz.	Oil percentage
LACCADIVE ORDINARY										
1	S.W. monsoon	3 2	2787.5	1 4	538.2	138	175.7	11.7	5.5	
2	N.E. monsoon	2 8	1950	0 14	370	80	112	11.6	4.37	
3	Winter	2 5	2104.6	1 2	248.5	84.8	165.3	12.0	5.3	
4	Summer	2 11	2530	1 4	548	138	165	11.8	6.3	
	Average	2 10.5	2343	1 2	426.17	110.2	154.5	11.7	5.36	72
LACCADIVE MEDIUM										
1	S.W. monsoon	1 15	640.8	0 7	193.3	35.6	46.8	11.3	2.75	
2	N.E. monsoon	1 12	1366.6	0 8	210.0	33.6	46.3	12.4	3.00	
3	Winter	1 11	1428.3	0 8	259.0	28	69.5	11.4	3.5	
4	Summer	1 11	1600.0	0 9	278.0	30	76	11.7	4.5	
	Average	1 12.2	1258.9	0 8	235.1	31.8	59.7	11.7	3.44	75
LACCADIVE SMALL OR MICRO (round)										
1	S.W. monsoon	1 13	1484	0 9	322	52.2	77	11.8	3.3	
2	N.E. monsoon	1 8	Nuts were not available	0 9	146.0	33.2	86	11.0	3.3	
3	Winter	1 3	1200	0 9	270	20	65	12.5	3.3	
4	Summer	1 3	1100	0 9	270	20	65	12.5	3.3	
	Average	1 8	1261.3	0 9	246.0	35.1	76	11.8	3.3	75
LACCADIVE SMALL OR MICRO (oblong)										
1	S.W. monsoon	0 15	601.5	0 6	128.5	..	20.8	10.5	2	
2	N.E. monsoon	1 3	Nuts were not available	0 9	85	14.6	65	10.3	3.16	
3	Winter	0 11	750	0 7	215.7	8	48	10.6	3.25	
4	Summer	0 11	750	0 7	215.7	8	48	10.6	3.25	
	Average	0 15	842.7	0 7.3	157.0	9.8	44.6	10.5	2.80	75

Conclusion

It may be seen from the description and data furnished above that selected coconut varieties of the Laccadive Islands would prove as good as the West Coast Tall variety when grown under suitable conditions. The Laccadive varieties are also found to possess some desirable features such as high rate of production of spathes, low shedding of 'buttons' and comparatively higher percentage of oil. The Medium and Micro varieties have tasty kernels and are good for culinary use in small families where the daily consumption of coconut being very limited, portion of a large coconut will have to be kept over for the next day for use. The Laccadive varieties are also being used at the Central Coconut

Research Station, Kasaragod as parents in hybridisation work for producing economic hybrids.

Acknowledgment

Some of the data reported in this paper were gathered by the Oil Seeds Specialist, Department of Agriculture, Madras from 1941 to 1947 when the main Farm of the Central Coconut Research Station, Kasaragod belonged to the Madras Government. The senior author wishes to record his grateful thanks to the Indian Central Coconut Committee for permitting him to visit the Laccadive Islands and the Government of Madras for giving necessary facilities.