to 5 tubers of marketable quality in a bunch. The average yield is about 20,000 lbs. per acre (40 candies). The crop occupies the same field once in 3 to 5 years. It is rotated with maize, tobacco, fodders, sugarcane, and vegetables. It is always raised as pure crop. The profit per acre ranges from Rs. 800/- to 1,000/-.

Nutritive value (Akroyd)

Moisture	84·40%
Protein	1·20%
Fat	0·20%
Mineral matter	0·30%
Fibre	...
Carbohydrate	14·00%
Calcium	0·01%
Phophorous	0·02%
Iron	0·50%

Akroyd: Health Bulletin No. 23. Nutritive Values of Indian Foods.

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A preliminary note on the growth of Jute in Malabar

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This note presents a few important observations on the growth of jute at the Agricultural Research Station, Pattambi in Malabar.

In India, Bengal is a big centre of jute production. It is cultivated over the fertile area composed of the vast flood plains of the rivers Ganges and Brahmaputra. The soils here are alluvial, rich in potash and lime and are well drained friable loams.

Jute requires humid heat for its growth. An average maximum temperature of of over 90° F. and a minimum temperature of over 70° F. with a relative humidity of 80 to 90% during its growing period from February to May. Occasional rains ranging from one to two inches at intervals of about a week are conducive to its best growth. Apart from

temperature and humidity the length of day is considered to be an important factor and it is said that in South India where the climate is moist and warm but the days are never so long as those of the summer in Bengal, it does not grow well. In Bengal the plants reach a height of six to eight feet, an acre of crop yielding 13 to 14 maunds of fibre. One of the most important factors on which the yield depends is the height of the crop.

Corchorus capsularis and *Corchorus olitorius* were the varieties tried on this station in the years 1948 and 1949. These were sown both on double crop wetlands and the drylands called *modan*. Of the two, *C. capsularis* is found to be the best suited under Malabar conditions. Neither of the varieties came up well on *modan* lands. The results given in this note therefore pertain to *C. capsularis* grown in double crop wet lands.

C. capsularis was sown in three batches of monthly sowings from March to May; the sowings were down on 1–3–1949, 1–4–1949 and 2–5–1949. The plots were manured in all cases with cattle manure at 20 tons per acre and were brought to fine tilth before sowing. Crops were irrigated at critical intervals during March, April and May. Altogether 10 irrigations were given in March, three in April and one in may.

The season was normal except for the fact that the south-west monsoon broke by about the middle of May which was, unusually, 18 days ahead of usual time. Height measurements were taken 15 days after sowing and at 15 day's intervals thereafter up to the time of harvest. Fortnightly weather data during the growing periods, the corresponding heights of the crop, differences in growth and the yields of fibre are given in the table. It would appear that both temperature and humidity should remain at a fairly high level for the best growth of jute. The high temperature in March is not accompanied by sufficient atmospheric humidity. Inspite of irrigations therefore the March crop was poor. The humidity rose with the rains received subsequently and the April crop attained the best growth. From the second week of May to the end of June the May crop had a setback as a result of the heavy rains which swamped the fields.

From colums 9, 11 and 13 in the statement below wherein the growth difference in successive measurements up to the time of flowering are given, it is clear that a good outturn of fibre is associated with initial growth on which again depends the maximum growth attained.

It is therefore evident that the best time of sowing in the ordinary double crop wetlands is about the middle of April. It may be sown early in April in the *karinkora* type of lands. The point to be remembered is to avoid any chance of flooding the field during the first month of its growth. If lower grounds are taken there must be facilities for quick drainage. These are certainly limitations to the extensive cultivation of jute in Malabar.

High initial fertility again, is essential as the outturn depends upon the initial growth. In intensively cropped lands application of farm yard manure up to 30 tons per acre will not be too much. In fairly virgin soils the crop comes up well without much of manuring; a crop of jute grown in such lands at Edakkara in Ernad Taluk actually attained a height of seven feet and under these conditions six to eight maunds of fibre can be obtained per acre.

Further trials are necessary for assessing the behaviour of this crop in all aspects under West Coast conditions.

TABLE

		Temperature.			Rainfall			Growth measure in c. m.					
								I batch		II batch		III batch	
		Max °F.	Min. °F.	Mean humidity %	Quantity in inches	No. of rainy days	100 yrs. average in ins.	Ht. Diff.	in growth	Ht. Diff.	in growth	Ht. Diff.	in growth
1		2	3	4	5	6	7	8	9	10	11	12	13
March fortnight	I	99·8	72·9	77·5	...	...	0·06	28·0	...	...	...	...	...
,,	II	99·5	77·0	85·2	...	...	0·86	30·0	2·3	...	...	...	...
April	I	95·1	77·1	83·6	2·58	4	1·46	64·3	34·0	...	...	...	...
,,	II	93·9	78·9	80·4	...	...	2·03	84·2	19·9	84·5	...	...	...
May	I	94·5	78·8	64·1	1·36	2	1·34	93·5	...	129·2	44·7	...	...
,,	II	86·6	75·4	93.1	15·83	14	5·78	98·1	...	151·9	22·7	59·0	...
June	I	83·7	74·6	94·6	12·32	12	12·14	...	...	164·2	12·3	91·2	32·2
,,	II	85·2	74·6	92·1	9·54	9	14·90	...	...	170·1	9.6	100·8	9.6
July	I	83·6	74·5	93·7	15·20	14	14·50	...	...	174·3	14·4	115·2	14·4
,,	II	82·8	74·0	93·3	15·01	9	10·70	...	...	...		143·6	
												150·2	
							Weight of fibre per acre.	86 lb.		280 lb.		270 lb.	

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