



GOVERNMENT OF KERALA

SEASON AND CROP REPORT

FOR

KERALA STATE

1974-75



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1976

BUREAU OF ECONOMICS AND STATISTICS

TRIVANDRUM

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FOREWORD

This report is the 16th of the series of season and crop reports relating to Kerala State. It deals with the different aspects of the agricultural economy of the State pertaining to the year 1974-1975. The report consists of four parts as detailed below:—

- | | | |
|----------|---|-----------------|
| Part I | — | Narrative part |
| Part II | — | Summary tables |
| Part III | — | Detailed tables |
| Part IV | — | Appendices |

Trivandrum,
2nd July, 1976.

N. GOPALAKRISHNAN NAIR
Director.

CONTENTS

	Page
PART I — REPORT	
1 Introduction	1
2 Population	2
3 Rainfall	2—3
4 Soil	3
5 Communication facilities	4
6 Land Utilisation	4—8
7 Area under crops	9—12
8 Irrigation	12
9 Weather and crop conditions	12—14
10 Production of important crops	14—16
11 Farm prices of certain commodities	17
12 Agricultural wages	17
13 Livestock, Poultry and Agricultural implements	17
14 Sowing, Harvesting and Peak marketing periods	17
PART II — SUMMARY TABLES	
A Classification of area	21
B1 Source of Irrigation	21
B2 Area under crops irrigated	21
C Area under crops	22—23
D Production of important crops	23
E Average yield of certain crops	24
F Average price and value of production	24
G Livestock, Poultry and Agricultural Machinery	25—26
H Sowing, Harvesting and Peak Marketing seasons of principal crops.	27—28
PART III — DETAILED TABLES	
1.1 Normal Rainfall	31
1.2 Average monthly rainfall	32
2.1 Classification of area in each District	33
2.2 Classification of area as percentage of total area according to village papers	34
3.1 Area under crops in each District	35—40

	<i>Page</i>
3.2 Percentage of area under crops to the total cropped area in each District ..	41—43
4.1 Out-turn of important crops in each District ..	44—46
5.1 Average farm price of certain commodities ..	47
6.1 Agricultural wages ..	48—50
7.1 Number of livestock, poultry and Agricultural Machinery and Implements. ..	51—55
 PART IV — APPENDICES	
1 Working class cost of living indices ..	59
2 Parity Index ..	59
3 Quarterly retail prices ..	60—64
4 Export of Agricultural commodities ..	65
5 Notes on certain crops ..	66—74
1. Tea	
2. Coffee	
3. Rubber	
4. Cardamom	
5. Pepper	
6. Ginger	
7. Lemongrass	
6 Classification of Soils in Kerala ..	75—76
7 Conversion ratio between the raw materials and the processed products ..	76—77
8 Average analysis of important Fertilizers ..	77—78
9 Insect pests affecting paddy crop, their distribution and some practical methods of control ..	78—79
10 List of centres selected for recording meteorological information ..	79—81
11 Glossary of English, Botanical and Malayalam names of crops ..	81—83
12 Estimated area, mean yield and production of rice relating to Autumn Crop of paddy 1974 ..	84—85
13 Do. Winter paddy 1975 ..	86—87
14 Do. Summer paddy 1975 ..	88—89

PART—I
REPORT

1. Introduction
 2. Population
 3. Rainfall
 4. Soil
 5. Communication facilities
 6. Land Utilisation
 7. Area under crops
 8. Irrigation
 9. Weather and crop conditions
 10. Production of important crops
 11. Farm prices of certain commodities
 12. Agricultural wages
 13. Livestock, Poultry and Agricultural Implements
 14. Sowing, Harvesting and Peak marketing periods
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SEASON AND CROP REPORT FOR KERALA STATE 1974-75

1. Introduction

Kerala is a small state occupying only 1.2% of the total area of the country. The State has a Geographical area of 38585 Sq. km. It lies in the south west corner of India between 8° 18' and 12° 48' north latitudes and 74° 52' and 77° 22' east longitudes. The coast line of the State runs into 580 km and its width varies from 130 km in the middle to 32 km in the extremities.

The undulating topography has created three district national divisions in the State. They are the low land, the midland and the high land from west to east in order. The low land extends over the sea and the high land includes the forests of the westernghats. The area lying in between the two is the mid land. These natural divisions of the State have been mainly responsible for its diversity in plant growth.

The high land is the most suited region for the cultivation of plantation crops whereas Paddy and Coconut are abundant in the low land. Numerous crops are cultivated in the midland region on varying scales. Important among them are Paddy, Tapioca, Coconut, Arecanut, Pepper, Ginger and Sugarcane.

Agriculture is the main occupation of the people. Paddy and Coconut are the most important crops cultivated in the State. Paddy is cultivated in three seasons Autumn, Winter and Summer. During Autumn and Winter seasons paddy is cultivated more extensively than during the summer season. Other seasonal and annual crops cultivated in the State are Tapioca, Banana, Sugarcane, Pulses, Sesamum, Ragi, Groundnut and Ginger. The major perennial crops of the State are Coconut, Arecanut, Cashew and Pepper in addition to the Plantation crops such as Tea, Coffee, Rubber and Cardamom.

The State has a normal rainfall of about 3000 mm per annum. Both the south-west monsoon and the north-east monsoon give good rain to the State. There are 44 rivers in the State. Of these 41 are west-flowing and the remaining 3 are east-flowing. The back waters of the State with a net work of connecting canals provide facilities for inland navigation.

The State is divided into 11 districts and 57 taluks. The districts are Trivandrum, Quilon, Alleppey, Kottayam, Idukki, Ernakulam, Trichur, Palghat, Malappuram, Kozhikode and Cannanore.

2. Population

The population of the State as per 1971 census is 213.47 lakhs and the density of population is 549 per sq. km. The estimated population for 1974 is 227.5 lakhs. The following table gives the details of 1971 census figures of population.

District	Population (lakhs) 1971	Density/Sq.km. (1971)
1. Cannanore	23.65	415
2. Kozhikode	21.06	565
3. Malappuram	18.56	510
4. Palghat	16.85	383
5. Trichur	21.29	702
6. Ernakulam	21.64	914
7. Kottayam	15.39	697
8. Idukki	7.65	149
9. Alleppey	21.26	1128
10. Quilon	24.13	522
11. Trivandrum	21.99	1003
Kerala	213.47	549

The per capita land available for cultivation in the State is 0.12 hectare whereas the per capita cultivated land is 0.11 hectare.

Kerala has the highest literacy rate in India. According to the 1971 census the literacy rate in Kerala (60.16%) is more than double the All India rate (29.32%). The census figures also reveal that male literacy has gone up from 54.97% in 1961 to 66.54% in 1971 whereas female literacy has shown a more remarkable increase from 38.83% in 1961 to 53.90% in 1971.

3. Rainfall

The normal rainfall in the State varies from 2001 mm. in Trivandrum District to 3796 mm. in Kozhikode District. The State total is 3004mm. The normal and the actual rainfall for the year are furnished in the following table.

TABLE II
Normal and actual rainfall

District	Normal rainfall (in mm.)	Actual rainfall (in mm.)
Trivandrum	2001	2297
Quilon	2760	2723
Alleppey	3012	3124
Kottayam	3083	2783
Idukki	2899	3543
Ernakulam	3578	3059
Trichur	3177	3307
Palghat	2398	2900
Malappuram	2900	3773
Kozhikode	3796	4742
Cannanore	3438	4059
State Average	3004	3301

The district-wise details of normal and average rainfall have been furnished in tables 1.1 and 1.2 of Part III.

4. Soil

The different types of soil seen in the State are classified as follows:—

1. The hilly and forest soil seen all along the eastern part of the State
2. The sandy soil seen in the coastal belt.
3. The laterite soil seen in the midland.
4. The black soil occurring as patches and seen in the eastern border of Palghat District.
5. The peat or kari soil seen in Alleppey District.
6. The alluvial soil seen along the southern and eastern parts of Vembanad lake and in small patches in Trivandrum District.
7. The red soil found in the extreme tip of Trivandrum Taluk.

The statement showing detailed classification of soil has been furnished as Appendix 6 of Part IV.

5. Communication facilities

The State has got a well developed transport system. The different parts of the State are connected by net work of roads. Further there are roads connecting the State with the neighbouring States of Tamilnadu and Karnataka. But the development of rail transport facilities in the State is not up to the mark. Eventhough there is a rail link connecting Kasargode in the North and Trivandrum in the South, the interior parts are not served by railways. The change from broad-guage to metre-guage at Ernakulam also causes a lot of inconvenience due to the difficulties involved in transshipment. However, the work of conversion of the metre-guage from Ernakulam to Trivandrum into broad-guage is progressing according to schedule. The work has been completed upto Quilon and the broad-guage line from Ernakulam to Quilon was opened already. The work relating to the extension of broad-guage line to Trivandrum is expected to be completed by the end of June 1976. The backwaters of the State coupled with a net work of connecting canals provides water transport facilities of unique nature. There are 2 Aerodromes, one at Cochin and the other at Trivandrum.

6. Land Utilisation

The land utilisation particulars of the State relating to 1974-75 have been furnished in Table A of the summary tables and the district-wise details in table 2.1 of the detail d tables. The particulars of area under different types of use are given below:—

1. *Total area of the State*—The State has a total area of 3858523 hectares according to village papers. The district-wise area of the State is furnished in the table given below:—

TABLE III

District	Area in Hectare	Percentage	Area as per 1971 Census
Trivandrum	216096	5.6	219200
Quilon	469051	12.2	462300
Alleppey	186790	4.8	188400
Kottayam	215695	5.6	219600
Idukki	506775	13.1	508700
Ernakulam	221183	5.7	237700
Trichur	299149	7.8	303200
Palghat	437087	11.3	440000
Malappuram	363015	9.4	363800
Kozhikode	366991	9.5	372900
Cannanore	576661	15.0	570600
STATE	3858523	100.0	3886400

2. *Forests*.—The total area of forest in the State is 1047282 hectares. The district-wise details for 1973-74 and 1974-75 are as follows:—

TABLE IV

District	Area under forest (Hectares)	
	1973-74	1974-75
Trivandrum	43849	43860
Quilon	210650	209074
Alleppey	513	513
Kottayam	6398	5912
Idukki	299221	297626
Ernakulam	1312	1312
Trichur	131934	131634
Palghat	67185	67185
Malappuram	97627	97627
Kozhikode	128607	128607
Cannanore	65932	63932
STATE	1053228	1047282

3. *Land put to non-agricultural use*.—The land put to non-agricultural uses during the year is 295113 hectares whereas the estimate for the previous year was 285791 hectares. The district-wise break up is furnished in the following table:—

TABLE V

District	Area under non-agricultural uses (Hectares)	
	1973-74	1974-75
Trivandrum	17026	17534
Quilon	16142	18042
Alleppey	12199	12450
Kottayam	12466	12805
Idukki	13770	14557
Ernakulam	27349	23638
Trichur	18491	18748
Palghat	52527	52897
Malappuram	13687	14389
Kozhikode	43868	44670
Cannanore	63266	65383
STATE	285791	295113

Cannanore, Palghat and Kozhikode are the districts with the largest area under non-agricultural use.

4. *Barren and uncultivable land*.—The area under this category is 64887 hectares as against 65530 hectares in the previous year.

5. *Permanent pastures and grazing land*.—The total area of the State under this class is 27800 hectares.

6. *Land under miscellaneous tree crops*.—The area under this category during the year is 97687 hectares as against 100169 hectares in the previous year.

7. *Cultivable waste land*.—The estimated area under cultivable waste during the year is 71950 hectares whereas the area for the previous year is 74149 hectares. The district-wise break up is given in the following table:—

TABLE VI

District	Area under cultivable waste land (Hectares)	
	1973-74	1974-75
Trivandrum	390	340
Quilon	2015	1985
Alleppey	826	800
Kottayam	1451	1308
Idukki	13408	13556
Ernakulam	1714	1716
Trichur	1934	1493
Palghat	4108	4017
Malappuram	23337	23323
Kozhikode	7996	7126
Cannanore	16970	16286
STATE	74149	71950

8. *Fallow land other than current fallow*.—An area of 20808 hectares is estimated to be under this category as against 21621 hectares for the previous year.

9. *Current fallow*.—It is estimated that an area of 24545 hectares is under current fallow in the State during the year. The corresponding estimate for the previous year is 27952 hectares. The district-wise estimates for the two years are furnished in the following table:—

TABLE VII

District	Current fallow (Hectares)	
	1973-74	1974-75
Trivandrum	231	224
Quilon	488	484
Alleppey	561	530
Kottayam	2868	1849
Idukki	2711	3711
Ernakulam	5080	3644
Trichur	1744	1546
Palghat	2108	2082
Malappuram	4813	4677
Kozhikode	2082	1910
Cannanore	4266	3888
STATE	27952	24545

10. *Net area sown*.—A consistently upward trend is observed in the area under this category. The total area in the State for the year is estimated to be 2208451 hectares, as against 2196979 hectares in the previous year. The district-wise estimates are given in the following table:—

TABLE VIII

District	Net area sown (Hectares)	
	1973-74	1974-75
Trivandrum	152279	151923
Quilon	229590	229511
Alleppey	162892	164384
Kottayam	182601	182943
Idukki	166214	166861
Ernakulam	184541	185698
Trichur	138562	139332
Palghat	292349	293036
Malappuram	210924	210453
Kozhikode	165647	166426
Cannanore	316684	317884
STATE	2202283	2208451

11. *Area sown more than once.*—The area sown more than once has increased from 797298 hectares to 819624 hectares during the year. The district-wise details are presented in the following table:—

TABLE IX

District	Area sown more than once (Hectares)	
	1973-74	1974-75
Trivandrum	92015	94740
Quilon	141817	147937
Alleppey	77073	80329
Kottayam	87614	88962
Idukki	5028	3055
Ernakulam	40585	40840
Trichur	107353	107025
Palghat	50830	54693
Malappuram	48944	52025
Kozhikode	112785	113390
Cannanore	33354	36628
STATE	797298	819624

12. *Total cropped area.*—The total cropped area in the State is on the increase. The area has increased from 2999581 hectares in 1973-74 to 3028075 hectares in 1974-75. The district-wise details of both the net area sown and the total cropped area are furnished in the following table:—

TABLE X

District	Net area sown	Total cropped area	Percentage of total cropped area to net area sown
Trivandrum	151923	246663	162
Quilon	229511	377448	164
Alleppey	164384	244713	149
Kottayam	182943	271905	149
Idukki	166861	169916	102
Ernakulam	185698	226538	122
Trichur	139332	246357	177
Palghat	293036	347729	119
Malappuram	210453	262478	125
Kozhikode	166426	279816	168
Cannanore	317884	354512	112
STATE	2208451	3028075	137

7 Area under crops.

The details of area under food and non-food crops in the state have been furnished in Table C of the summary tables and the districtwise area is given in table 3.1 of the detailed tables.

A. *Food crops.* The area under food crops in the State for the year is 1885876 hectares whereas the corresponding figure for the previous year was 1859404 hectares. The area under food crops accounts for is 63% of the total cropped area. The district-wise area under food crops and its percentage to total cropped area are furnished in table No. XI.

TABLE XI

District	Total cropped Area	Area under food crops		
		Hectare	% to the state total	% to total cropped area
Trivandrum	246663	157674	8.4	63.92
Quilon	377448	227852	12.1	60.37
Alleppey	244713	155179	8.2	63.41
Kottayam	271905	144707	7.7	53.22
Idukki	169916	83308	4.4	49.02
Ernakulam	226538	143895	7.6	63.50
Trichur	246357	172885	9.2	70.18
Palghat	347729	267769	14.2	77.01
Malappuram	262478	168392	8.9	64.14
Kozhikode	279816	137205	7.3	49.04
Cannanore	354512	227006	12.0	64.03
STATE	3028075	1885876	100.0	62.78

The relative position of some of the food crops in the over-all picture of the state's food crops is discussed in the following paragraphs.

1. *Paddy.*—The area under paddy for the year is estimated to be 881466 hectares as against 874675 hectares for the previous year. The district-wise area under the crop for the year in comparison with that of the previous year is given in the following table.

TABLE XII

District	Area under paddy (Hectare)	
	1973-74	1974-75
Trivandrum	39765	39926
Quilon	51189	51686
Alleppey	92039	96459
Kottayam	44359	44346
Idukki	13397	13272
Ernakulam	86568	87863
Trichur	109914	108966
Palghat	183181	185123
Malappuram	92176	92018
Kozhikode	64022	63846
Cannanore	98065	97961
STATE	874675	881466

Palghat district continues to maintain the lead in respect of the area under paddy.

The district-wise percentage distribution of area under paddy and the percentage of area under paddy to the total cropped area are furnished in the following table.

TABLE XIII

District	Area under Paddy (Hectare)	Percentage to total	Percentage of area under paddy to total cropped area
Trivandrum	39927	4.5	16.2
Quilon	51686	5.9	13.7
Alleppey	96459	10.9	39.4
Kottayam	44346	5.0	16.3
Idukki	13272	1.5	7.8
Ernakulam	87863	10.0	38.8
Trichur	108966	12.4	44.2
Palghat	185123	21.0	53.2
Malappuram	92018	10.4	35.1
Kozhikode	63846	7.3	22.8
Cannanore	97961	11.1	27.6
STATE	881466	100.0	29.1

2. *Other cereals and millets.*—This crop is estimated to have been cultivated in an area of 4583 hectares during the year. The corresponding estimate for the previous year was 5177 hectares. In addition to this, Jowar and Ragi are also cultivated in 1443 hectares and 4967 hectares respectively.
3. *Pulses.*—The cultivation of this crop was conducted in an area of 37262 hectares as against 37417 hectares in the previous year. About one-third of the total area under the crop was in Palghat district.
4. *Sugarcane.*—The area under this crop is estimated to be 9506 hectares during the year. Whereas the same for the previous year was 7765 hectares. More than one-third of the total area under the crop is in Alleppey District.
5. The area under the crop has increased from 118245 hectares in 1973-74 to 118408 hectares in the current year. Kozhikode and Cannanore are the leading pepper growing districts in the state.
6. *Chillies.*—The area under the crop in the state during the year is 3173 hectares whereas in the preceding year it was 3188 hectares.
7. *Ginger.*—The estimated area under the crop for the year is 12201 hectares as against 12044 hectares during the previous year.
8. *Turmeric.*—There was an area of 4263 hectares under turmeric during the year as against 4320 hectares in 1973-74.
9. *Cardamom.*—The area under this crop has decreased from 47492 hectares in the previous year to 46630 hectares in the current year.
10. *Arecanut.*—The estimated area under Arecanut for the year is 92042 hectares as against the previous year's estimate of 90701 hectares. Cannanore, Malappuram and Trichur are the important Arecanut producing districts in the state.
11. *Mangoes.*—The area under the crop is 62532 hectares during the year as compared to 57487 hectares in the previous year.
12. *Banana.*—The area under Banana has increased from 8998 hectares during the previous year to 9063 hectares in the current year.
13. *Other Plantains.*—It is estimated that an area of 38080 hectares has been under the crop during the year as against 37724 hectares in the previous year.
14. *Cashewnut.*—The area under the crop has increased from 103162 hectares in 1973-74 to 104885 hectares in the current year. About 42% of the total area under the crop is in Cannanore district of the state.
15. *Tapioca.*—The crop is cultivated in an area of 317880 hectares in the state. The estimate for the previous year was 306446 hectares. It is an important food crop of the state and is cultivated most extensively in all the districts. Quilon is the leading Tapioca growing district.

B. Non-Food Crops

1. *Groundnut*.—This crop is cultivated only in Palghat District. The area under the crop is 17510 hectares as against 16044 hectares in the previous year.

2. *Sesamum*.—It is estimated that the crop was cultivated in an area of 11782 hectares during the year. Alleppey and Quilon are the important districts for the cultivation of this crop.

3. *Coconut*.—It is the most important Oil seed crop cultivated in this state. The area under the crop during the year is estimated to be 748174 hectares as against 744828 hectares. The crop is cultivated extensively in all parts of the state. Among the districts, Quilon has the largest area under the crop.

4. *Cotton*.—It is a localised crop cultivated only in Palghat district. The area under crop is 7551 hectares as compared to 7476 hectares in the previous year.

5. *Tobacco*.—Tobacco is cultivated only in Cannanore District. The area cultivated during the year is 762 hectares. The area for the previous year was 668 hectares.

6. *Tea*.—The area under the crop during the year was 37572 hectares whereas the estimate for the previous year was 37685 hectares. Idukki district accounts for the major part of the area under the crop.

7. *Coffee*.—Kozhikode is the leading district in Coffee cultivation. The area during the year has increased from 35805 hectares in the previous year to 36589 hectares in the current year.

8. *Rubber*.—Rubber is the most important plantation crop of the state. The area under the crop for the year is estimated to be 202318 hectares as against 199604 hectare in the previous year. Kerala accounts for 91% of the total area under Rubber in Kerala.

8. Irrigation

The net area irrigated in the state during the year is 464651 hectares as compared to 456780 hectares in the previous year. Government canals are the major source of Irrigation in the state. The percentage of net area irrigated to net area sown is 21.04.

The gross irrigated area is 651747 hectares. The percentage of gross area irrigated to total cropped area is 21.52. The source-wise and crop-wise irrigated area in the state is given in table B-1 and B-2 of the Summary tables respectively.

9. Weather and crop conditions

Trivandrum District.—The weather condition in most parts of the district was normal. Both the Autumn and the Winter crops were good.

No major incidents of damage to crops were reported during the year. In certain parts of Nedumangad and Trivandrum Taluks there were minor cases of loss to standing crops on account of natural calamities.

Quilon District.—The heavy downpour of rain during the Kharif season affected the Agricultural operations in parts of the district. The same was the case of rainfall at the harvest time of the Kharif crops also. In the Rabi season, in contrast, inadequate rain in the beginning and heavy rain at the harvest stage caused damage to crop in some villages. Paddy, Tapioca and Banana are the crops affected.

Alleppey District.—The heavy rain the South West Monsoon season caused flood in the low-lying lands of the district and affected the Kharif crop of Paddy. In the Rabi season, the Rainfall was inadequate. Acute drought affected Winter crop of Paddy in parts of Chengannur Taluk. Incidence of pest attack and consequent damage to crops were also reported from some parts of Kuttanad Taluk.

Kottayam District.—The weather conditions in the district were generally favourable for crops. Both the Kharif and the Rabi crops were good in most parts of the district. The exceptions are parts of Kottayam, Vaikom and Changanacherry Taluks where the low-lying regions were flooded and the Kharif crops were damaged. The quantitative estimate of damage was, however negligible.

Idukki District.—The weather conditions were normal in Thodupuzha and Peermedu Taluks of the district. But in Devicolem and Udumbanchola Taluks there was heavy rain and flood in some villages. The crops in the flood affected villages were subjected to damage. There was no report of crop damage from Peermedu Taluk whereas in Thodupuzha Taluk slight damage occurred to both Autumn and Winter crops in some villages due to adverse weather conditions.

Ernakulam District.—The South West Monsoon came very late still, there was very heavy rain in the Kharif season. The low-lying lands in several parts got flooded. Slight damage was also caused to crops. The early end of the North East Monsoon was another notable feature. Want of adequate rain caused little bits of damage to Rabi crops in different parts of the district.

Trichur District.—The rainfall was normal and favourable for the growth of crops in the Western parts of the district. But in the eastern taluks of Talappilly and Mukundapuram the rainfall was in a state of erratic fluctuation. Want of timely rainfall affected the Kharif crops in these taluks. Rabi crops were generally good in the district. The exceptions were parts of Chavakkad, Kodungallur and Mukundapuram taluks where minor cases of damage to crops were reported. The quantitative estimate of loss was not however, significant.

Palghat District.—In the Kharif season both rainfall and crops were good in all the taluks. But rainfall was inadequate in Alathur and Chittur

taluks in the Rabbi season. Drought affected crop in some parts of these taluks. The extent of damage caused is not large general, the weather and crop conditions were good in the district.

Malappuram District.—There was normal rainfall in the district during the year. Both Autumn and Winter crops were good. Summer Paddy was adversely affected by drought in some parts of the district. Autumn Paddy in Ernad and Perin halmanna taluks was also affected by flood in some regions. Other crops recorded normal yield.

Kozhikode District.—There was heavy rainfall during the Kharif season. Causes of damage to crops due to flood were reported from several parts of the district. Paddy, Coconut, Arecanut, Tapioca and Banana were the crops affected. The rainfall was inadequate during the Rabi season. The yield of Winter Paddy, Coconut and Pepper was affected by drought in some parts of the district.

Cannanore District.—In the Kharif season there was heavy rainfall in all the taluks of the district. Flood and consequent damage to Autumn crop was reported from some parts of the district. In the Rabi season the rainfall was adequate and the Winter paddy was good in most parts of the district. However, cases of inadequate rainfall and drought affecting Winter crop was reported from some parts of Taliparamba Taluk.

10. Production of important crops

The production of important crops in the state has been given in table D of the summary tables. The district-wise production estimates have been furnished in table 4.1 of the summary tables. The production trends of important crops are indicated below :

1. *Paddy.*—The rice production in the State for the year is 133391 tonnes as against 1257069 tonnes in the previous year. Palghat is the major rice producing district in the State. The district-wise details of production are furnished in the following table.

TABLE XIV

District	Production of rice (tonnes)	
	1973-74	1974-75
Trivandrum	55620	58037
Quilon	79738	78241
Alleppey	130283	157231
Kottayam	56855	79680
Idukki	20563	22579
Ernakulam	107779	125416
Trichur	126523	150031
Palghat	341348	359953
Malappuram	134622	104308
Kozhikode	70134	70675
Cannanore	133604	127780
STATE	1257069	1333931

The season-wise rice production for the year is furnished in Table XV.

TABLE XV

Season	Rice production (tonnes)	
	1973-74	1974-75
Autumn	605595	535545
Winter	507755	602186
Summer	143719	196200
STATE	1257069	1333931

2. *Pulses*.—The production of pulses for the year is 13764 tonnes as against 13699 in the previous year.

3. *Sugarcane*.—The production of Gur during the year is estimated to be 53912 tonnes whereas the previous year's production was 51345 tonnes.

4. *Black Pepper*.—The production estimates for the current year and the previous year are 27228 tonnes and 27745 tonnes. Cannanore, Kozhikode, Quilon and Kottayam are the major Pepper producing districts in the state.

5. *Dry Ginger*.—The quantity of Ginger produced during the year is 26040 tonnes as against 26683 tonnes in the previous year.

6. *Turmeric (cured)*.—The production of Turmeric is estimated to be 4480 tonnes. The previous year's production was 4586 tonnes.

7. *Cardamom*.—Idukki District accounts for the major part of Cardamom production. The quantity produced during the year is 2050 tonnes.

8. *Betelnuts*.—The production estimated for the year is 13777 million nuts as against 13136 million nuts in the previous year.

9. *Banana*.—During the year the production increased to 66033 tonnes from 65560 tonnes in the previous year.

10. *Other Plantains*.—It is estimated that 290550 tonnes of other plantains was produced during the year. The estimate for the previous year was 288060 tonnes.

11. *Cashewnut*.—The cashewnut production for the year is 117679 tonnes as against 115747 tonnes in the previous year.

12. *Tapioca*.—The quantity of tapioca produced during the year is 5625116 tonnes as against 5659523 tonnes in the previous year. The district-wise estimates are furnished in the following table.

TABLE XVI

District	Yield rate of tapioca (Tonnes/Hect.)
Trivandrum	14.96
Quilon	19.27
Alleppey	18.65
Kottayam	20.63
Idukki	20.61
Ernakulam	16.52
Trichur	18.44
Palghat	18.52
Malappuram	12.29
Kozhikode	14.70
Cannanore	26.32
STATE	17.70

13. *Groundnut*.—The production of groundnut for the year is estimated to be 19471 tonnes as against 18043 tonnes in the previous year.

14. *Sesamum*.—The quantity produced shows a fall from 3489 tonnes in the previous year to 3264 tonnes in the current year.

15. *Coconut*.—The total production during the year is 3719 million nuts as against 3703 million nuts in the previous year.

16. *Cotton*.—The production of cotton for the year is estimated to be 9522 bales of 180 kg. each.

17. *Tobacco*.—This crop is produced only in Cannanore district. The quantity produced during the year is 1327 tonnes whereas the previous year's estimate of production is 1386 tonnes.

18. *Tea*.—The estimated production of tea for the year is 48899 tonnes as against 48358 tonnes in the previous year.

19. *Coffee*.—The quantity of coffee produced during the year is 15784 tonnes whereas the production for the previous year was 15459 tonnes.

20. *Rubber*.—The rubber production has increased to 121558 tonnes from 118016 tonnes in the previous year. Kottayam and Quilon are the leading districts in rubber production.

21. *Lemongrass Oil*.—The total production for the year is 1602 tonnes.

11. Farm prices of certain Commodities

The average farm prices of certain commodities are given in table F of the Summary tables and table 5.1 of the detailed tables.

12. Agricultural wages

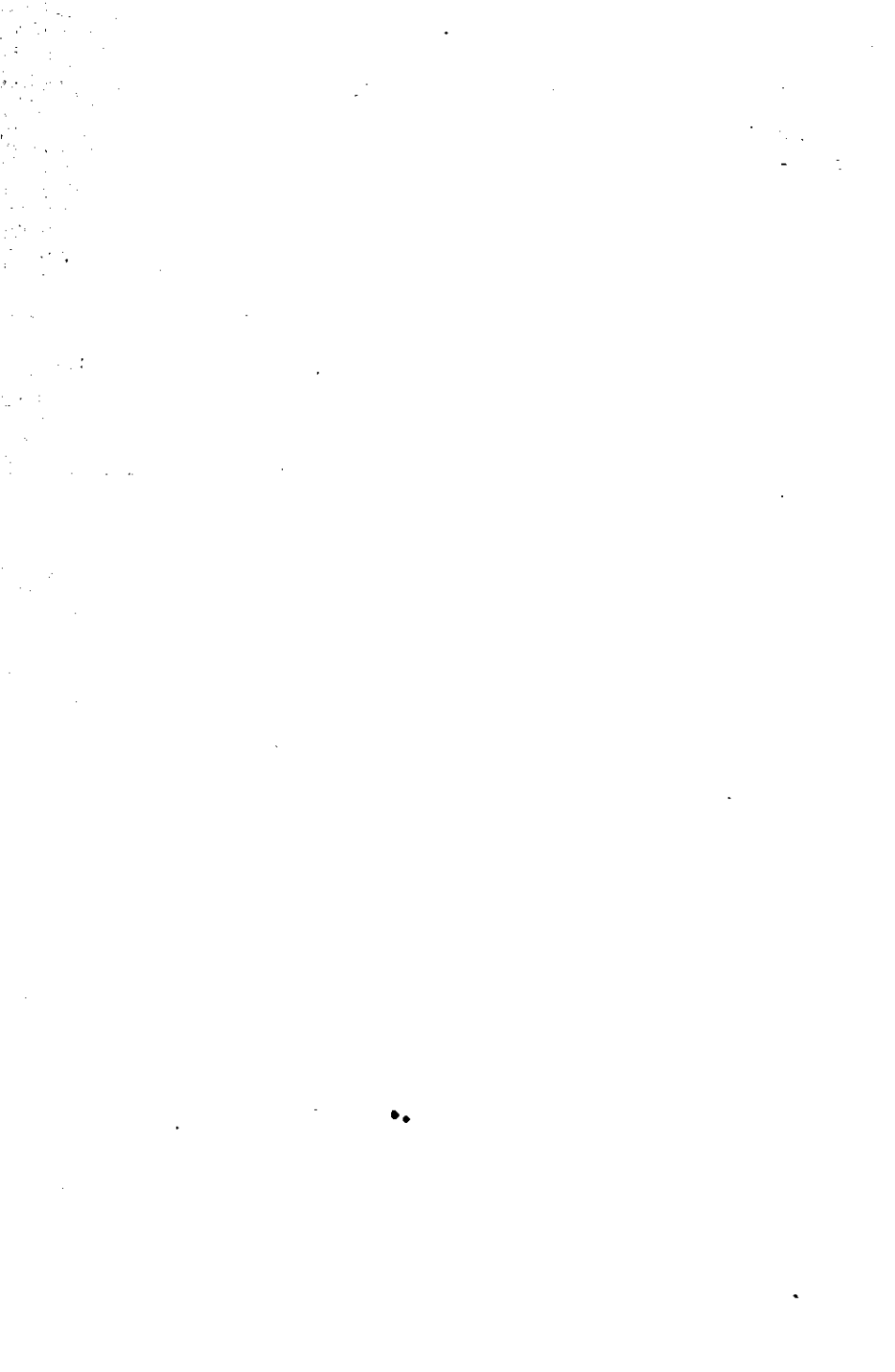
District-wise and class-wise details of agricultural wages are given in Table 6.1.

13. Livestock, Poultry and Agricultural Implements

The details relating to these items have been furnished in table G of the summary tables and table 7.1 of the detailed tables.

14. Sowing, harvesting and peak marketing periods

The information on these topics has been furnished in table H of the summary tables.



PART II

Summary Tables

- A. Classification of area
 - B1. Sources of irrigation
 - B2. Area under crops irrigated
 - C. Area under crops
 - D. Production of important crops
 - E. Average yield per hectare of certain crops
 - F. Average price and value of production
 - G. Livestock, poultry and agricultural machinery
 - H. Sowing, harvesting and peak marketing season.
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TABLE A
Classification of Area (Hectares)

Sl.No.	Head of Classification	Area	Percentage
1.	Total area by village papers	3858523	100.00
2.	Forests	1047282	27.14
3.	Land put to non-agricultural uses	295113	7.65
4.	Barren and uncultivable land	64887	1.68
5.	Permanent pastures and other grazing lands	27800	0.72
6.	Land under miscellaneous tree crops	97687	2.53
7.	Cultivable waste lands	71950	1.86
8.	Current fallow	24545	0.64
9.	Other fallows	20808	0.54
10.	Net area sown	2208451	57.24
11.	Total cropped area	3028075	78.48
12.	Area sown more than once	819624	21.24

TABLE B1
Source of water supply and net area irrigated in 1974-75 (Hectares)

Net area irrigated by:—

1.	Government canals	228166
2.	Private canals	10160
3.	Tanks	76308
4.	Wells	5460
5.	Other sources	144557
6.	Total	464651
7.	% of area irrigated to net area sown	21.04
8.	Area irrigated more than once	187096
9.	Total irrigated area	651747
10.	% of total irrigated area to total cropped area	21.52

TABLE B2
Gross area irrigated in Kerala (Hectares) 1974-75

Name of crop	* Area (Hectares)	Percentage
Paddy	538997	82.70
Sugarcane	4290	0.66
Other food crops	55690	8.54
Total food crops	598977	91.90
Total non-food crops	52770	8.10
All crops	651747	100.00

* The figures are provisional.

TABLE C

Area under crops in Kerala 1974-75 (Hectares)

Name of Crops	Area
(1)	(2)
Paddy	881466
Jowar	1443
Ragi	4967
Other cereals and millets	4583
Total cereals and millets	892459
Tur	4861
Other pulses	32401
Total pulses	37262
Sugarcane	9506
Palmyrah (Others)	8476
Total sugarcane crops	17982
Pepper	118408
Chillies	3173
Ginger	12201
Turmeric	4263
Cardamom	46630
Areca nut	93042
Other condiments & Spices	19554
Total condiments and spices	297271
Mangoes	62532
Citrus fruits	1959
Banana	9063
Plantains	38030
Other fresh fruits	63505
Cashewnuts	104885
Total fruits	285024
Tapioca	317880
Sweet potatoes	5398
Other vegetables	32600
Total vegetables	355878
Total food crops	1085876
Groundnut	17510
Castor	324
Sesamum	11782
Coconuts	748174
Other oil seeds	8709
Total oil seeds	786499
Cotton	7551
Tobacco	762
Tea	37572

TABLE C—(contd.)

(1)	(2)
Coffee	36589
Rubber	202318
Other drugs and plantation crops	1406
Total drugs and plantation crops	278647
Fodder crops	441
Green manure crops	17001
Lemongrass	24036
Other non food crops	28024
Total non food crops	1142199
Total area under all crops	3028075
Area sown more than once	819624
Net area sown	2208451

TABLE D

Production of important crops in Kerala 1974-75

Name of crop	Unit	Quantity
Rice	'000 tonnes	1334
Paddy	"	2030
Jowar	Tonnes	560
Ragi	"	4585
Tur	"	1090
Other pulses	"	12674
Sugarcane (Gur)	"	53912
Pepper (Black)	"	27228
Chillies (Dry)	"	2940
Ginger (Dry)	"	26040
Turmeric (cured)	"	4180
Cardamom (processed)	"	2050
Arecanut (Betelnuts)	Million nuts	13777
Banana	Tonnes	66033
Other plantains	"	290550
Cashewnut	"	117679
Tapioca (Raw)	'000 tonnes	5625116
Sweet Potatoes	Tonnes	24294
Groundnut	"	19471
Sesamum	"	3264
Cocoanut	Million nuts	3719
Cotton	Tonnes	9522
Tobacco	"	1327
Tea	"	48899
Coffee	"	15784
Rubber	"	121558
Lemongrass Oil	"	1602

TABLE E

Average yield per hectare of certain crops for the year 1974-75

Name of crop	Unit	year	
		1973-74	1974-75
1. Paddy	Kg./Hect.	2186	2303
2. Jowar	"	405	388
3. Ragi	"	886	923
4. Sugarcane (Gur)	"	5388	5671
5. Pepper (Black)	"	213	230
6. Ginger (Dry)	"	2215	2134
7. Turmeric (Cured)	"	1062	1051
8. Cardamom (Processed)	"	32	44
9. Arecanut	Nuts/Hect.	148389	148072
10. Banana	Kg./Hect.	7286	7286
11. Other plantains	"	7636	7630
12. Cashewnuts	"	1122	1122
13. Tapioca (Raw)	"	18468	17696
14. Groundnut	"	1051	1112
15. Sesamum	"	296	227
16. Coconut	Nuts/Hect.	4972	4971
17. Cotton	Kg./Hect.	208	227
18. Tea	"	1283	1301
19. Coffee	"	432	431
20. Rubber	"	591	601

TABLE F

Average price and total value of production 1974-75

Name of crop	Unit	Average farm price (Rs.)	Value of production (Rs. in lakhs)
1. Paddy	Tonnes	2458.04	49904.19
2. Coconut (with husk)	1000 nuts	851.30	31659.85
3. Arecanut (Ripe)	"	34.10	4697.96
4. Tapioca (Raw)	Tonnes	374.50	18744.16
5. Cashewnut	"	2762.20	3250.53
6. Banana	1000 Nos.	269.40	978.51
7. Pepper (Black)	Tonnes	10123.80	2756.51
8. Ginger (Dry)	"	5987.70	1559.20
9. Sugarcane	"	91.72	494.48

TABLE G

Number of Livestock, Poultry and Agricultural Machinery

Sl. No.			1966 census	1972 census		
(1)	(2)	(3)	(4)	(5)		
1.	Cattle	Male over 3 years	(a) Breeding 19387 (b) Working 491281 (c) Others 8855	4800 371972 14822		
		Total		519523	391594	
		Female over 3 years	(a) Breeding 1. In milk 483419 2. Dry 592972 3. Not calved 133999 (b) Working 3605 (c) Others 5247	606192 578827 101849 7646 5657		
	Total		1219242	1300171		
	Young stock		1117962	1164555		
	Total cattle		2856727	2856320		
	2.	Buffaloes	Males over 3 years	(a) Breeding 6106 (b) Working 241048 (c) Others 6696	2185 211467 12077	
			Total		253850	225729
			Females over 3 years	(a) Breeding 1. In milk 66705 2. Dry 52777 3. Not calved 9119 (b) Working 4589 (c) Others 1580	83188 53671 10495 6066 2360	
		Total		134770	155780	
Young stock		82615	90238			
Total Buffaloes		471235	471747			

(1)	(2)	(3)	(4)	(5)
3.	Sheep	(a) One year and above	7920	6991
		(b) Below one year	3599	3330
		Total	11519	10321
4.	Goats	(a) One year and above	757766	839053
		(b) Below one year	431452	628604
		Total	1189218	1467657
5.	Horses and Ponies	(a) 3 years and above	372	333
		(b) Below 3 years	54	118
		Total	426	451
6.	Mules		8	14
7.	Donkeys		310	861
8.	Camels		4	11
9.	Pigs		111928	129087
		Total Livestock	4641375	493646
10.	Poultry	(a) Fowls	9587286	11844548
		(b) Ducks	318751	301941
		(c) Others	2950	965
11.	Ploughs	(a) Wooden	475930	393714
		(b) Iron	17179	35103
12.	Carts	•	16809	16245
13.	Sugarcane crushers	(a) Power	457	96
		(b) Bullocks	989	801
14.	Oil Engines		6824	18649
15.	Electric pumps		4869	9983
16.	Tractors		418	2752

TABLE H

Sowing, Harvesting and Peak marketing seasons of principal crops in Kerala State

Sl. No. Crop	(1)	(2)	(3)	(4)	(5)	(6)
				Sowing	Harvesting	Peak marketing
1. Rice			Autumn Winter Summer	April—June August—October November—December January—March	August—October December—February February—March April—May	September—October January—February March—April May—June
2. Ragi		1st crop 2nd crop		April—July September—October May	August—October December—January August December	September—October December—January August December
3. Small Millets (Samai)		Kharif Rabi		September May—June	August—September November—January April	September—October January April
4. Red gram		1st crop 2nd crop 3rd crop		August—October February August—October February—March	November—January April—May	January—February May—June
5. Horsegram		1st crop 2nd crop 3rd crop		May—June May—June October—November May—June October	August—September August—October January—February August—September December—January	September—October October February August—September January
6. Greengram		1st crop 2nd crop		November—February January—March April—May	October—December December—February November—January November—January	November—December February December—January December—January
7. Blackgram		1st crop 2nd crop		..	..	..
8. Other pulses		1st crop 2nd crop		..	..	..
9. Sugarcane		1st crop 2nd crop		..	..	..
10. Ginger (Raw)	
11. Pepper	

(1)	(2)	(3)	(4)	(5)	(6)
12.	Cotton		August—September	February—March	February—March
13.	Sesamum	1st crop	August—October	December—January	December—January
		2nd crop	December—January	March—April	April—May
		3rd crop	February—March	June—July	July—August
14.	Sweet potatoes	1st crop	June—July	September—October	September—October
		2nd crop	September—October	December—January	December—January
		3rd crop	November—December	February—March	February—March
15.	Turmeric		April—May	December—January	January—February
16.	Lemongrass			June—September	September
17.	Tapioca	1st crop	October—November	August—September	August—September
		2nd crop	March—May	November—January	December—January
		3rd crop	July—September	May—July	June—July

PART III
Detailed Tables

- 1.1 Normal Rainfall.
 - 1.2 Average Monthly Rainfall.
 - 2.1 Classification of area in each District.
 - 2.2 Classification of area as percentage to total area according to village papers.
 - 3.1 Area under crops in each District.
 - 3.2 Percentage of area under crops to total cropped area in each District.
 - 4.1 Out turn of important crops in each District.
 - 5.1 Average farm price of certain commodities.
 - 6.1 Agricultural wages.
 - 7.1 Number of livestock, poultry and agricultural machinery and implements.
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TABLE 1.1
Normal Rainfall in Kerala 1974-75 (in mms.)

Sl. No.	District	July 1974	August 1974	Sept. 1974	Oct. 1974	Nov. 1974	Dec. 1974	January 1975	February 1975	March 1975	April 1975	May 1975	June 1975	Total
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
1	Trivandrum	257.4	204.5	168.9	280.2	210.2	270.1	121.2	18.0	48.0	118.1	213.9	391.1	2001.4
2	Quilon	449.6	318.1	226.1	344.9	242.9	64.8	24.1	32.1	83.6	166.3	260.3	547.4	2760.2
3	Alleppey	552.3	370.3	272.7	330.2	219.4	64.1	125.9	29.3	59.0	133.5	291.5	663.8	3012.0
4	Kottayam	652.9	429.5	273.2	330.6	212.8	71.7	30.3	26.3	59.8	141.3	244.9	609.3	3082.6
5	Idikki	655.1	432.9	262.7	304.4	195.8	68.8	31.1	24.1	44.6	111.7	200.9	556.7	2398.9
6	Ernakulam	785.9	523.5	296.6	365.7	216.9	54.6	18.0	23.6	54.4	136.1	310.1	792.1	3577.5
7	Trichur	761.4	458.6	250.3	307.5	158.3	30.3	9.3	8.8	28.6	86.6	274.3	803.4	3177.4
8	Palghat	649.9	363.0	169.5	257.2	140.9	29.7	9.8	9.3	27.0	79.6	158.4	503.4	2397.7
9	Malappuam	787.0	405.0	198.8	290.0	163.8	30.9	6.7	6.5	19.3	78.7	211.0	702.4	2900.1
10	Kozhikode	1117.4	599.2	262.4	290.2	163.7	34.2	10.4	7.6	20.0	92.4	254.0	944.5	3796.0
11	Cannanore	1063.5	584.8	239.4	218.0	106.0	22.8	5.3	4.8	11.1	58.6	200.6	923.0	3437.9
	STATE AVERAGE	702.9	426.3	238.2	301.7	184.6	49.3	17.5	17.3	41.4	109.3	238.2	676.1	3003.8

TABLE 1.2
Monthly Rainfall statement for the year 1974-75 (in mms.)

Sl. No.	District	July 1974	August 1974	Sept. 1974	Oct. 1974	Nov. 1974	Dec. 1974	January 1975	Feb. 1975	March 1975	April 1975	May 1975	June 1975	Total
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
1	Trivandrum	470.6	388.8	301.4	122.1	44.4	2.9	20.6	33.1	58.0	228.3	227.1	399.9	2297.2
2	Quilon	544.4	384.9	376.0	176.1	80.4	..	4.1	39.8	77.1	249.0	193.9	597.2	2722.9
3	Alleppey	718.5	437.3	418.1	191.7	94.2	4.6	6.4	73.4	123.5	207.4	182.1	666.3	3123.5
4	Kottayam	622.6	530.7	445.2	141.8	71.8	2.1	14.1	57.7	63.1	158.2	103.2	572	62783.1
5	Idikki	932.9	728.5	381.4	198.2	124.3	2.5	2.5	30.2	39.1	122.9	158.1	822.5	3543.1
6	Ernakulam	993.3	444.7	366.1	106.1	66.2	..	5.7	6.6	58.5	134.8	145.4	731.2	3058.6
7	Trichur	1077.0	496.1	366.7	123.2	32.8	..	4.3	..	47.8	71.0	257.6	830.2	3306.7
8	Palghat	883.6	509.8	279.5	82.6	48.2	..	0.1	6.8	55.1	57.8	151.6	824.6	2859.7
9	Malappuram	1310.8	473.7	411.0	141.3	46.3	..	0.3	10.0	75.3	72.8	151.9	1079.6	3773.0
10	Kozhikode	1636.5	802.8	568.0	89.2	45.2	..	2.4	2.9	69.7	78.7	173.6	1272.9	4741.9
11	Cannanore	1421.9	590.1	401.0	125.7	26.2	..	1.0	0.3	52.6	53.7	129.0	1257.4	4058.9
	STATE AVERAGE	964.7	526.1	392.2	136.2	61.8	1.1	5.6	23.7	65.5	130.4	170.3	823.1	3300.7

TABLE 2.1
Classification of Area in each District
(Hectare)

District	Classification											Total geographical area according to village papers	Total cropped area
	2	3	4	5	6	7	8	9	10	11	12		
1. Trivandrum	216096	43860	17534	498	550	476	340	691	224	151923	94740	246663	
2. Quilon	469051	209074	18042	6902	1300	984	1985	769	484	229511	147937	377448	
3. Alleppey	186790	513	12450	753	250	6350	800	760	530	164384	80329	244713	
4. Kottayam	215695	5912	13805	1683	2513	4516	1308	1166	1849	182943	88962	271905	
5. Idukki	506775	297626	14557	7128	1388	1646	13556	302	3711	166861	3055	169916	
6. Ernakulam	221183	1312	22638	1521	1599	650	1716	2405	3644	185698	40840	226538	
7. Trichur	209149	131634	18748	2156	500	3326	1493	414	1546	139332	107025	246357	
8. Palghat	437087	67185	52897	10575	2810	1432	4017	3053	2082	293036	54693	347729	
9. Malappuram	363045	97627	14389	4602	2369	5082	23323	523	4677	210453	52025	262478	
10. Kozhikode	366991	128607	44670	9774	2521	3022	7126	2935	1910	166426	113390	279816	
11. Cannanore	576661	63932	65383	19295	12000	70203	16286	7790	3888	317884	36628	354512	
STATE	3858523	1047282	295113	64887	27800	97687	71950	20808	24545	2208451	819624	3028075	

TABLE 2.2
Classification of area as percentage to total area according to village papers 1974-75

District	Classification of area												
	2	3	4	5	6	7	8	9	10	11	12	13	
	Area according to village papers	Forests	Land put to non-agricultural uses	Barren and uncultivable land	Permanent pastures and other grazing land	Land under miscellaneous tree crop not included in net area sown	Cultivable waste	Fallow land other than current fallow	Current fallow	Net area sown	Area sown more than once	Total cropped area	
1													
1. Trivandrum	100	20.30	8.11	0.23	0.25	0.22	0.16	0.32	0.10	70.30	43.84	114.14	
2. Quilon	100	44.57	3.85	1.47	0.28	0.21	0.42	0.16	0.10	48.93	31.54	80.47	
3. Alleppey	100	0.27	6.67	0.40	0.13	3.40	0.43	0.41	0.28	88.00	43.00	131.00	
4. Kottayam	100	2.74	6.40	0.78	1.17	2.09	0.61	0.54	0.86	84.82	41.24	126.06	
5. Idukki	100	58.73	2.87	1.41	0.27	0.32	2.67	0.06	0.73	32.93	0.60	33.53	
6. Ernakulam	100	0.59	10.23	0.69	0.72	0.29	0.78	1.09	1.65	83.96	18.46	102.42	
7. Trichur	100	44.00	6.27	0.72	0.17	1.11	0.50	0.14	0.52	46.58	35.78	82.35	
8. Palghat	100	15.37	12.10	2.42	0.64	0.33	0.92	0.70	0.48	67.04	12.51	79.56	
9. Malappuram	100	26.89	3.96	1.27	0.65	1.40	6.42	0.14	1.29	57.97	14.33	72.30	
10. Kozhikode	100	35.04	12.17	2.66	0.69	0.82	1.94	0.80	0.52	45.35	30.90	76.25	
11. Cannanore	100	11.09	11.34	3.35	2.08	12.17	2.82	1.35	0.67	55.12	6.35	61.47	
STATE	100	27.14	7.65	1.68	0.72	2.53	1.86	0.54	0.64	57.24	21.24	78.48	

TABLE 3.1
Area under crops in each District
(Hectare)

District	Food crops										Pulses
	Cereals										
	Rice (Oryza Sativa)					Jowar	Ragi	Other cereals & millets	Total cereals & millets	Tur	
	Autumn	Winter	Summer	Total	Total						
1	2	3	4	5	6	7	8	9	10		
1. Trivandrum	18561	20188	1177	39926	..	..	..	..	39926	..	..
2. Quilon	21161	29369	1156	51686	..	459	..	..	52145	..	..
3. Alleppey	30518	23572	42869	96459	..	..	..	..	96459	..	..
4. Kottayam	8030	19019	17297	44346	..	..	..	..	44346	..	..
5. Idukki	4031	9189	52	13272	..	..	..	..	13272	..	..
6. Ernakulam	37378	40270	10215	87863	..	..	..	..	87863	..	..
7. Trichur	34569	60131	14266	108966	..	..	..	..	110178	..	..
8. Palghat	100906	82274	1943	185123	1443	..	..	4583	191981	4861	..
9. Malappuram	50596	35961	5461	92018	..	..	..	..	92018	..	..
10. Kozhikode	24875	35146	3825	63846	..	..	..	..	65366	..	..
11. Cannanore	64802	29717	3942	97961	..	..	..	..	98905	..	..
STATE	394927	384836	101703	881466	1443	4967	4583	892459	4861	..	..

TABLE 3.1—(Contd.)

District	Food crops										
	Pulses				Total food grains	Sugar crops			Condiments & Spices		
	Other pulses		Total pulses	Sugar-cane		Others (palmyra-rah)	Total Pepper	Chillies	Ginger		
	Kharif	Rabi			Total					16	17	18	19	20	21
	11	12	13	14	15	16	17	18	19	20	21
1. Trivandrum	946	1338	2284	2284	42210	..	455	455	4050	..	..
2. Quilon	4740	2724	7464	7464	59609	2176	282	2458	15353	..	214
3. Alleppey	..	546	546	546	97005	3870	42	3912	4393	..	..
4. Kottayam	159	96	255	255	44601	213	66	679	16774	..	3366
5. Idukki	156	93	249	249	13521	2093	338	241	5959	..	1072
6. Ernakulam	542	1100	1642	1642	89505	9	285	294	9778	..	830
7. Trichur	2328	5497	7825	7825	118003	..	1300	1300	4325	..	76
8. Palghat	3348	4246	7594	12455	204436	1100	4658	5758	629	830	907
9. Malappuram	..	..	..	..	92018	..	340	340	5966	675	1855
10. Kozhikode	..	3286	3286	3286	68652	..	139	139	20281	..	3450
11. Cannanore	..	1256	1256	1256	100161	45	171	216	30897	1668	431
STATE	12219	20182	32401	37262	929721	9506	8476	17982	118408	3173	12201

TABLE 3.1—(Contd.)

Food crops

Districts	Condiments & Spices						Fresh fruits					
	Turmeric	Cardamom	Beta'nus	Others	Total	Mangres	Citrus fruits	Banana	Other plantains	Others	Total	
1	22	23	24	25	26	27	28	29	30	31	32	
1. Trivandrum :	..	..	4596	4217	12863	7050	..	699	3467	6869	18085
2. Quilon	63	..	9209	3681	28520	9331	..	1483	4175	6050	21089	
3. Alleppey	..	..	5108	1148	10649	4183	..	558	2797	9298	16836
4. Kottayam	986	..	5448	2348	28928	10220	..	1064	3281	5546	20111	
5. Idukki	152	42231	1725	654	51793	1235	..	126	1567	6327	9255	
6. Ernakulam	288	1042	7807	1465	21210	4608	..	821	2245	7164	14838	
7. Trichur	72	..	15139	1968	21580	4638	..	1033	4447	4571	14689	
8. Palghat	1233	1886	3768	2906	12159	7381	..	291	4701	5874	18247	
9. Malappuram	..	..	15535	61	24092	3972	..	627	2199	4733	11531
10. Kozhikode	1236	1079	8121	904	35074	4940	96	1012	4108	4559	14716	
1. Cannanore	233	392	16336	202	50409	4974	1863	1348	5093	7514	20792	
STATE	4263	46630	93042	19554	297271	62532	1959	9063	38080	68505	180139	

TABLE 3.1 (Contd.)

Districts	Food crops													Total No. of crops
	Dried fruits			Fruits			Vegetables						Total Fruits and Vegetables	
	Cashew nuts	Others	Total	Total Fruits	Tapioca	Sweet Potatoes	Onions	Others	Total					
	33	34	35	36	37	38	39	40	41	42	43			
1. Trivandrum	4468	..	4468	22553	7825	78	8	882	79593	103146	157574			
2. Quilon	8692	..	8692	29731	99688	129	12	7705	107534	137265	227853			
3. Alleppey	3617	..	3617	20453	19124	113	6	3917	23160	43613	155179			
4. Kottayam	1334	..	1334	21445	40120	884	17	8039	49060	70505	144707			
5. Idukki	1938	..	1938	11193	3124	72	24	1150	4370	15563	83368			
6. Ernakulam	3974	..	3974	18812	12171	60	18	1825	14074	32886	143896			
7. Trichur	6794	..	6794	21483	8617	171	7	1728	10523	32006	172889			
8. Palghat	9051	..	9051	27298	13373	2321	71	2353	18118	45416	267769			
9. Malappuram	14249	..	14249	25780	23648	627	18	1869	26162	51942	168392			
10. Kozhikode	5847	..	5847	20563	11139	57	8	1573	12777	33340	137205			
11. Cannanore	44921	..	44921	65713	8251	886	6	1364	10507	76220	227006			
STATE	104885	..	104885	285024	1317830	5398	195	32405	355178	640902	1885876			

Table 3.1 (Contd.)

Non food crops

Districts	Oil seeds					Fibres					Drugs	
	Ground-nuts	Caster	Sesamum	Coconut	Others	Total	Cotton	Others	Total	Tobacco	Tea	
1	44	45	46	47	48	49	50	51	52	53	54	
1 Trivandrum	..	0	31	77270	1091	78398	..	..	..	..	1066
2. Quilon	..	29	3588	107409	93	111119	..	..	..	..	2230
3. Alleppey	..	26	3683	79963	417	84089	..	..	..	..	276
4. Kottayam	..	7	53	66479	3233	69772	..	..	..	..	27337
5 Idukki	..	149	33	23040	498	23720	..	..	..	..	188
6. Ernakulam	..	17	857	52857	1283	55014	..	..	..	..	436
7. Trichur	..	6	1160	57328	1551	60045	..	..	..	..	631
8. Palghat	17510	67	662	24819	366	43424	7551	..	7551	..	174	
9. Malappuram	..	..	1135	69749	19	70903	..	..	..	..	3872
10 Kozhikode	..	5	270	96988	46	97304	..	..	..	..	1368
11. Cannanore	..	12	310	92277	112	92711	..	..	..	762	37572
STATE	17510	324	11788	748174	8709	786499	7551	..	7551	762	37572	

TABLE 3.1—(Contd.)

Districts	Non-food crops										Total area sown under all crops	Area sown more than once	Net area sown
	Narcotics & Plantain crops				Fodder crops	Green manure crops	Other non-food crops	Total non-food crops					
	Coffee	Rubber	Others	Total									
					55	56	57	58	59	60				61	62	63	64	65
1. Trivandrum	42	7732	..	8840	11	565	1175	88989	246663	94740	151923		
2. Quilon	275	32612	..	35117	83	201	3076	149596	377448	147937	229511		
3. Alleppey	..	3815	..	3815	109	562	959	89534	244713	80329	164384		
4. Kottayam	848	53162	..	54286	6	2312	822	127198	271905	88962	182943		
5. Idukki	1596	15357	..	44290	25	734	17839	86608	169916	3035	166861		
6. Ernakulam	68	20062	..	20318	148	3057	4106	82643	226538	40840	185698		
7. Trichur	..	8952	..	9388	19	537	3479	73468	246357	107025	139332		
8. Palghat	4559	8077	372	13639	18	5621	9707	79960	347729	54693	293036		
9. Malappuram	..	16941	..	17115	..	2178	3890	94086	262478	52025	210453		
10. Kozhikode	23384	16385	1034	44675	6	..	365	142611	279816	113390	166426		
11. Cannanore	5817	19223	..	27164	16	973	6642	127506	354512	36628	317884		
STATE	36589	202318	1406	278647	441	17001	52060	1142199	3028075	819624	2208451		

TABLE 3.2

Percentage of area under crops to the total cropped area in each district during 1974-75

Districts	Cereals and Millets											
	Total cropped area	Total food crops	Total non food crops	Net area sown	Area sown more than once	Rice	Others	Total	Total pulses	Total food grains	Sugar	
1	2	3	4	5	6	7	8	9	10	11	12	
1. Trivandrum	100	63.92	36.08	61.59	38.41	16.19	..	16.19	0.92	17.11	0.19	
2. Quilon	100	60.37	39.63	60.81	39.19	13.69	0.12	13.81	1.98	15.79	0.65	
3. Alleppey	100	63.41	36.59	67.17	32.83	39.42	..	39.42	0.22	39.64	1.60	
4. Kottayam	100	53.22	46.78	67.28	32.72	16.31	..	16.31	0.09	16.40	0.25	
5. Idikki	100	49.03	50.97	98.20	1.80	7.81	..	7.81	0.15	7.96	1.44	
6. Ernakulam	100	63.52	36.48	81.97	18.03	38.79	..	38.79	0.72	39.51	0.14	
7. Trichur	100	70.18	29.82	56.56	43.44	44.23	0.49	44.72	3.18	47.90	0.53	
8. Palghat	100	77.01	22.99	84.27	15.73	53.24	1.97	55.21	3.58	58.79	1.66	
9. Malappuram	100	64.15	35.85	80.18	19.82	35.06	..	35.06	..	35.06	0.12	
10. Kozhikode	100	49.03	50.97	59.48	40.52	22.82	0.54	23.36	1.17	24.53	0.05	
11. Cannanore	100	64.03	35.97	89.67	10.33	27.63	0.27	27.90	0.35	28.25	0.07	
STATE	100	62.28	37.72	72.93	27.07	29.11	0.36	29.47	1.23	30.70	0.60	

TABLE 3.2 (Contd.)

Districts	Condiments and Spices							Fresh fruits					Vegetables			
	Pepper	Cardamom			Total			Mangoes	Banana including plantain	Others	Total	Dried fruits cashewnuts	Total fruits	Tapioca	Others	Total
		13	14	15	16	17	18									
1. Trivandrum	1.64	..	1.86	1.71	5.21	2.86	1.69	2.78	7.33	1.81	9.14	31.88	0.39	32.27		
2. Quilon	4.07	..	2.44	1.05	7.56	2.47	1.50	1.60	5.57	2.31	7.88	26.41	2.08	28.49		
3. Alleppey	1.80	..	2.09	0.46	4.35	1.71	1.37	3.80	6.88	1.48	8.36	7.81	1.65	9.46		
4. Kottayam	6.17	..	2.01	2.46	10.64	3.76	1.60	2.04	7.40	0.49	7.89	14.76	3.28	18.04		
5. Idikki	3.51	24.85	1.02	1.10	30.48	0.73	0.99	3.72	5.44	1.14	6.58	1.84	0.73	2.57		
6. Ernakulam	4.32	0.46	3.45	1.14	9.36	2.03	1.35	3.16	6.54	1.76	8.30	5.37	0.84	6.21		
7. Trichur	1.75	..	6.15	0.86	8.76	1.83	2.22	1.86	5.96	2.76	8.72	3.50	0.77	4.27		
8. Palghat	0.19	0.54	1.03	1.69	3.50	2.12	1.44	1.69	5.25	2.60	7.85	3.85	1.36	5.21		
9. Malappuram	2.27	..	5.92	0.99	9.13	1.51	1.08	1.80	4.39	5.43	9.82	9.01	0.96	9.97		
10. Kozhikode	7.25	0.39	2.90	1.99	12.53	1.77	1.83	1.66	5.26	2.09	7.35	3.98	0.59	4.57		
11. Cannanore	8.72	0.11	4.63	0.71	14.22	1.40	1.82	2.64	5.86	12.67	18.53	2.33	0.63	2.96		
STATE	3.91	1.54	3.07	1.29	9.81	2.07	1.56	2.32	5.95	3.46	9.41	10.50	1.26	11.76		

TABLE 3.2 (Contd.)

District	Total fruits and vegetables		Total food crops		Oil seeds						Drugs and Narcotics & plantain Crops					Other non-food crops		Total non-food crops	
	27	28	29	30	31	32	Total		34	35	36	37	38	39	40	41	42	43	
							Sesamum	Coconut											Ground nut	others	Tea	Coffee	Rubber	Others	Total
1. Trivandrum	41.41	63.92	0.01	31.33	..	0.44	31.78	..	0.43	0.02	3.13	..	3.58	0.72	36.08	..	..
2. Quilon	36.37	60.37	0.95	28.45	..	0.04	29.44	..	0.59	0.07	8.64	..	9.30	0.89	39.63	..	..
3. Alleppey	17.82	63.41	1.51	32.67	..	0.18	34.36	..	..	..	1.56	..	1.56	0.67	36.59	..	..
4. Kottayam	25.93	53.22	0.02	24.45	..	1.19	25.66	..	0.11	0.31	19.55	..	19.97	1.15	46.78	..	..
5. Idukki	9.15	49.03	0.02	13.56	..	0.38	13.96	..	16.10	0.93	9.04	..	26.07	10.94	50.97	..	..
6. Ernakulam	14.51	63.52	0.36	23.33	..	0.57	24.28	..	0.08	0.03	8.86	..	8.97	3.23	36.48	..	..
7. Trichur	12.99	70.18	0.47	23.27	..	0.63	24.37	..	0.18	..	3.63	..	3.81	1.64	29.82	..	..
8. Palghat	13.06	77.01	0.19	7.14	5.04	0.12	12.49	2.17	0.18	1.31	2.32	0.11	3.92	4.41	22.99	..	..
9. Malappuram	19.79	64.15	0.43	26.57	..	0.01	27.01	..	0.07	..	6.45	..	6.52	2.32	35.85	..	..
10. Kozhikode	11.92	49.03	0.09	34.66	..	0.02	34.77	..	1.38	8.36	5.86	0.36	15.96	0.24	50.97	..	..
11. Cannanore	21.49	64.03	0.09	26.03	..	0.03	26.15	..	0.38	1.64	5.42	0.22	7.66	2.15	35.97	..	..
STATE	21.17	62.28	0.39	24.71	0.58	0.29	25.97	0.25	1.24	1.21	6.68	0.07	9.20	2.30	37.72	..	..

TABLE 4.1
Out-turn of Important crops

District	Rice (tonnes)										
	Autumn	Winter	Summer	Total	Jowar (tonnes)	Ragi (tonnes)	Other cereals & millets (tonnes)	Tur (tonnes)	Other pulses (tonnes)	Sugarcane Gur (tonnes)	
1	2	3	4	5	6	7	8	9	10	11	
1. Trivandrum	24097	32413	1527	58037	..	..	..	..	980	..	
2. Quilon	28977	48803	1261	78241	..	567	..	..	2664	10736	
3. Alleppey	33546	31082	92603	157231	..	..	..	..	229	21037	
4. Kottayam	11470	29463	38747	79680	..	..	..	..	116	1180	
5. Idukki	6248	16264	67	22579	..	..	..	..	128	12625	
6. Ernakulam	46321	64586	14509	125416	..	..	..	..	821	40	
7. Trichur	43669	84529	21883	150031	..	831	..	..	2694	..	
8. Palghat	185094	171607	3252	359953	560	740	2832	1090	3055	8138	
9. Malappuram	49969	42804	11535	104308	..	..	..	..	..	..
10. Kozhikode	21817	43875	4988	70675	..	1047	..	..	1212	..	
11. Cannanore	84337	37560	5883	127780	..	1400	..	..	775	156	
State	535545	602186	196200	1333931	550	4585	2832	1090	12674	53912	

TABLE—4.1—(Contd.)

District	12	13	14	15	16	17	18	19	20	21
	Black Pepper (Tonnes)	Dry Chillies (Tonnes)	Dry Ginger (Tonnes)	Curved Turmeric (Tonnes)	Processed Carda- mom (Tonnes)	Betalnuts (Million nuts)	Banana (Tonnes)	Other Plantain (Tonnes)	Cashewnut raw (Tonnes)	Tapioca (Tonnes)
11										
1 Trivandrum	863	..	..	..	..	714	5093	26453	5013	1176230
2. Quilon	4744	..	513	78	..	1354	10805	31855	9752	1920988
3. Alleppey	690	..	..	..	..	795	4066	21341	4058	3566683
4. Kottayam	4630	..	7563	811	..	546	7752	25034	1497	827676
5. Idukki	1365	..	2179	141	1801	208	918	11956	2174	64386
6. Ernakulam	1848	..	1955	290	46	944	5982	17129	4459	201065
7. Trichur	631	..	78	62	..	2252	7526	33931	7623	158897
8. Palghat	98	762	1491	914	115	476	2120	35869	10155	247668
9. Malappuram	1187	667	2812	..	..	2415	4568	16778	15987	290634
10. Kozhikode	4807	..	8394	1639	66	1499	7381	31344	6560	163743
11. Cannanore	6355	1511	1055	545	22	2074	9822	38860	50411	217166
State	27228	2940	26040	4480	2050	13777	66033	290550	117679	5625116

TABLE 4.1—(Contd.)

District	22	23	24	25	26	27	28	29	30	31
	Sweet Potatoes (tonnes)	Ground nut (tonnes)	Sesamum (tonne)	Coconut (million nuts)	Cotton (bales of 180 kg.)	Tobacco (tonnes)	Tea (tonnes)	Coffee (tonnes)	Rubber (tonnes)	Lemongras oil (tonnes)
1										
2. Trivandrum	351	..	15	446	..	..	923	28	5042	1
3. Quilon	581	..	811	531	..	..	2258	35	22660	3
4. Alleppey	509	..	947	444	..	..	..	..	2179	1
5. Kottayam	3978	..	20	329	..	..	348	367	32277	107
6. Idukki	324	..	11	123	..	..	34446	696	9701	..
7. Ernakulam	270	..	339	200	..	..	280	31	11507	783
8. Trichur	770	..	524	338	..	..	818	..	6828	43
9. Palghat	10445	19471	179	83	9522	..	2081	2705	3150	9
10. Malappuram	2823	..	258	309	..	..	138	..	8932	171
11. Kozhikode	257	..	80	521	..	..	6273	9589	9392	172
12. Cannanore	3987	..	80	315	..	1327	1334	2393	9590	312
STATE	21294	19471	3264	3719	9522	1327	48899	15784	121558	1602

TABLE 5.1

Average Farm Price (harvest price) in Rupees for certain commodities 1974-75

District	1	2	3	4	5	6	7	8	9	10
		Paddy * (Std.) (Para)	Coconut (100) (Nos.)	Arecanut (100) (Nos.)	Tapioca (Qt.)	Cashew nut (Qt.)	Banana (100) (Nos.)	Pepper (Qt.)	Ginger (Qt.)	Sugar- cane (M. T.)
1. Trivandrum	23.16	78.79	3.25	35.39	240.00	28.17	947.87	631.44	97.85	
2. Quilon	19.43	85.69	3.79	35.65	282.57	30.69	994.48	593.79	100.00	
3. Alleppey	17.40	87.55	3.30	44.83	262.19	26.27	998.54	649.29	..	
4. Kottayam	18.75	89.66	3.40	38.83	266.25	28.46	1010.96	612.50	..	
5. Idukki	20.65	95.87	2.94	39.34	287.92	28.17	1061.29	602.60	..	
6. Ernakulam	20.23	94.35	3.40	33.83	273.75	24.81	991.67	589.17	..	
7. Trichur	18.23	88.77	4.31	37.97	280.00	25.31	956.66	583.70	..	
8. Palghat	16.42	87.99	3.18	34.17	296.17	26.41	1018.53	598.77	..	
9. Malappuram	17.75	75.09	3.29	..	248.50	..	1029.55	..	..
10. Kozhikode	18.29	78.97	2.57	33.79	276.78	24.04	..	..	..
11. Cannanore	15.56	87.39	3.10	56.08	..	25.90	1012.38	..	..
STATE	17.87	85.13	3.41	37.45	276.42	26.94	..	..	..	101.15

* 300C. inches

TABLE 6.1
Agricultural wages—Paddy Field Labourers (Men)—1974-75

CARPENTER

District	July	August	September	October	November	December	January	February	March	April	May	June	Average
1	2	3	4	5	6	7	8	9	10	11	12	13	14
1. Trivandrum	7.00	7.00	6.50	6.50	6.75	7.00	7.00	7.00	7.00	7.25	7.25	7.25	6.96
2. Quilon	6.50	6.50	6.75	7.25	7.50	7.50	7.50	7.50	7.50	7.50	7.50	7.50	7.25
3. Alleppey	6.75	6.25	7.00	7.50	7.88	7.88	7.63	8.00	8.00	8.50	8.50	8.50	7.70
4. Kottayam	6.25	6.25	7.75	7.75	7.75	7.75	7.75	7.75	7.75	7.75	7.75	7.75	7.54
5. Ernakulam	8.00	8.00	8.00	8.25	8.25	8.00	8.50	8.75	8.75	10.60	11.00	10.00	8.71
6. Tricnur	8.00	8.00	8.00	8.00	8.00	8.00	8.00	8.00	8.00	8.00	8.50	8.50	8.08
7. Palghat	10.00	10.00	8.90	7.50	7.50	7.43	7.43	8.50	8.51	8.42	8.50	8.00	8.39
8. Malappuram	6.50	6.50	6.50	6.50	6.75	7.25	7.00	7.25	7.25	7.25	7.25	7.75	6.98
9. Kozhikode	7.50	7.50	7.75	7.75	7.75	7.75	7.75	7.75	7.75	7.75	7.75	9.00	7.81
10. Cannanore	10.25	10.50	11.25	11.25	11.25	11.25	11.25	11.25	11.25	11.25	11.25	11.25	11.10
STATE	7.68	7.65	7.84	7.83	7.94	7.98	7.98	8.18	8.18	8.37	8.43	8.55	8.05

Table 6.1—(Contd.)
MASON—1974-75

District	July	August	September	October	November	December	January	February	March	April	May	June	Average
1. Trivandrum	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00
2. Quilon	12.00	12.00	12.00	12.50	12.00	12.00	12.00	12.00	12.00	12.00	13.00	13.00	12.21
3. Alleppey	11.00	11.00	12.50	12.50	12.50	12.50	12.50	12.50	12.50	12.50	12.50	12.50	12.25
4. Kottayam	12.25	12.25	12.25	12.25	12.25	12.25	12.25	12.25	12.25	12.25	12.25	12.25	12.25
5. Ernakulam	9.75	10.00	10.00	10.00	9.75	10.00	10.75	11.25	11.75	12.25	12.25	13.00	10.90
6. Trichur	11.75	11.75	11.75	11.75	11.75	11.75	11.75	11.75	12.75	13.50	13.50	13.50	12.47
7. Palghat	8.50	8.50	8.50	8.50	9.00	9.00	9.50	9.50	9.50	9.50	9.50	9.50	9.08
8. Malappuram	8.75	8.75	8.75	8.75	9.00	9.25	9.50	9.00	9.25	9.25	9.25	9.25	9.06
9. Kozhikode	10.75	10.75	11.75	11.75	11.75	11.75	11.75	12.00	12.50	13.00	13.00	13.00	11.98
10. Cannanore	10.50	10.50	11.00	11.00	11.25	11.50	12.00	12.50	12.50	13.00	13.00	13.00	11.85
STATE	10.53	10.55	10.85	10.90	10.93	11.00	11.20	11.28	11.50	11.73	11.83	11.95	11.19

Table 6.1 (Contd.)
CARPENTER—1974-75

District	July	August	September	October	November	December	January	February	March	April	May	June	Average
1. Trivandrum	8.50	8.50	9.00	9.00	9.25	9.25	9.50	9.50	9.50	9.75	9.75	9.75	9.27
2. Quilon	11.25	11.25	11.25	11.25	11.63	12.00	12.00	13.00	13.00	13.00	13.50	13.50	12.22
3. Alleppey	11.00	11.00	12.50	12.50	12.50	12.50	12.50	12.50	12.50	12.50	12.50	12.50	12.25
4. Kottayam	12.25	12.25	12.25	12.25	12.25	12.25	12.25	12.25	12.25	12.25	12.25	12.25	12.25
5. Ernakulam	9.75	10.00	10.00	10.00	9.75	10.00	10.75	11.25	11.75	12.25	12.25	13.00	10.90
6. Trichur	11.75	11.75	11.75	11.75	11.75	11.75	11.75	11.75	12.75	13.50	13.50	13.50	12.27
7. Palghat	8.50	8.50	8.50	8.50	8.75	8.75	9.50	9.50	9.50	9.50	9.50	9.50	9.04
8. Malappuram	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.50	10.50	10.08
9. Kozhikode	10.75	10.75	10.75	10.75	10.75	10.75	10.75	11.00	11.50	12.00	12.50	12.50	11.23
10. Cannanore	10.50	10.50	11.00	11.00	11.50	11.75	12.00	12.50	12.50	13.00	13.00	13.50	11.90
STATE	10.43	10.45	10.70	10.70	10.81	10.90	11.10	11.33	11.53	11.78	11.93	12.05	11.14

TABLE 7.1

**Number of Livestock, Poultry and Agricultural Machinery and implements in Kerala
(1972 census)**

District	Cattle												
	Males over three years						Females over three years						
	2	3	4	5	6	7	8	9	10	11	12	Total	
1. Trivandrum	156	12971	891	14012	43775	32622	4972	272	270	81911	70670	166593	
2. Quilon	525	33296	1638	35459	76751	85409	15344	178	700	178382	167776	381617	
3. Alappay	265	10704	811	11780	81839	82041	12420	120	828	177248	146962	335990	
4. Kottayam	408	11786	758	12952	58768	61575	11561	458	225	132587	123858	269397	
5. Idukki	721	10776	626	12123	30568	30623	3931	174	269	65565	58443	136131	
6. Ernakulam	459	53237	1588	55284	51113	43544	7887	438	427	103409	105731	264424	
7. Kozhichur	534	46032	828	47394	44579	34351	5170	727	262	85089	90198	222681	
8. Palghat	378	57066	1746	59190	55536	51700	8517	2297	846	118896	101892	279978	
9. Malappuram	277	45784	1575	47636	36127	30305	5239	1250	287	73208	58122	178966	
10. Cozhibid	414	30971	965	32350	56680	51400	11330	1378	496	121284	94771	248405	
11. Cannanore	669	59349	3396	63414	70456	75257	15478	354	1047	162592	146132	372138	
STATE	4800	371972	14822	391594	606192	578827	101849	7646	5657	1300171	1164555	2856320	

TABLE 7.1—(Contd.)

District	Buffaloes											
	Males over three years						Females over three years					
	13	14	15	16	17	18	19	20	21	22	23	Total
	Breeding	Working	Others	Total	In milk	Breeding (dry)	Not calved	Working	Others	Total	Young stock	Total
1. Trivandrum	242	12872	904	14018	11621	7306	1371	428	262	20988	9502	44508
2. Quilon	181	3880	352	9413	6762	5077	805	107	105	12856	6595	28864
3. Alleppey	87	5631	238	5956	2919	2272	449	75	21	5736	2200	13892
4. Kottayam	61	1606	283	1950	2707	1619	261	49	46	4682	1717	8349
5. Idukki	147	1456	275	1878	3771	2419	417	83	73	6763	3569	12210
6. Ernakulam	120	9723	639	10482	5738	1968	478	300	129	8613	3711	22806
7. Trichur	252	38721	1278	30528	11676	6110	1130	247	774	19937	13564	64029
8. Palghat	365	84499	5077	90141	13816	11389	2106	2322	366	29999	24765	144905
9. Malappuram	158	31215	1513	32886	9492	5774	1507	1863	266	18902	11382	63170
10. Kozhikode	160	10671	646	11477	6036	3530	663	357	109	10695	4844	27016
11. Cannanore	212	15916	874	17000	8650	6207	1308	235	209	16609	8389	41998
STATE	2185	211457	12077	225729	83188	53671	10495	6066	2360	155780	90238	471747

TABLE 7.1—(Cont'd.)

District	Sheep			Goats			Horse & Ponies			Mules	Donkeys	Camels	Pigs	Total livestock
	One year & above	Below one year	Total	One year & above	Below one year	Total	3 years & above	Below 3 years	Total					
Trivandrum	456	489	945	85391	63369	148760	83	21	104	2	21	2	14001	374936
Quilon	741	333	1074	100653	78239	178892	37	3	40	..	2	..	964	591454
Alleppey	485	355	840	57240	42666	99906	13	..	13	..	70	..	148	450859
Kottayam	165	163	328	84692	62625	147317	11	1	12	..	..	..	43348	468751
Idukki	122	82	204	3 829	25413	61242	2	..	2	..	157	..	25666	235612
Ernakulam	82	65	147	90620	72298	162918	10	..	10	1	78	..	32246	482630
Trichur	32	52	84	79619	63785	143404	20	7	27	..	100	7	2141	432473
Palghat	4728	1656	6424	82787	53084	135871	62	34	96	10	417	..	430	568131
Malappuram	21	3	24	79873	57335	137208	28	..	28	..	10	..	86	379492
Kozhikode	46	34	80	77944	59582	137526	60	26	86	1	6	1	3772	416893
Cannanore	113	58	171	64405	50208	114613	7	26	33	..	..	..	6285	535238
STATE	6991	3330	10321	839053	628604	1467657	333	118	451	14	861	11	129087	4936469

TABLE 7.1 (Contd.)

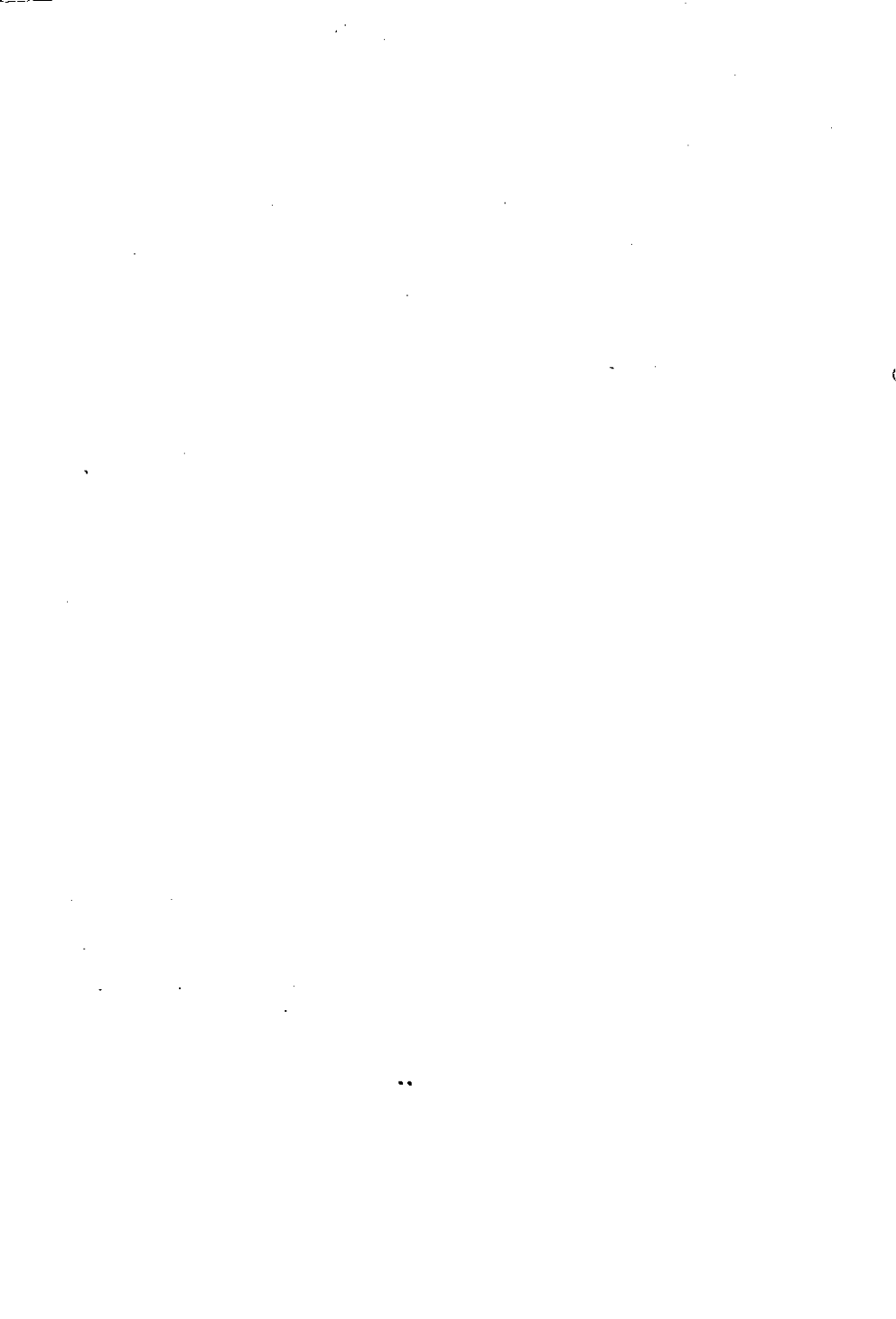
54

District	Poultry				Plough		Carts	Sugarcane crushers		Oil Engines	Electric pumps
	Fowls	Ducks	Others	Total	Wooden	Iron		Power	Bullocks		
Trivandrum	1020638	4563	167	1025368	17379	3164	1196	3	19	191	567
Quilon	1150361	9237	88	1159686	29462	15594	1695	5	67	327	207
Alleppey	1462497	189431	195	1652123	14250	5542	634	22	83	1468	546
Kottayam	1027291	61651	79	1089021	8005	516	392	10	170	709	255
Idukki	460954	3540	39	464533	7156	355	119	6	6	153	161
Ernakulam	1355680	51873	100	1407653	51028	1482	637	14	102	3417	3039
Trichur	1230931	21456	28	1252415	40896	2421	2467	1	115	1163	1849
Palghat	914032	8437	2	922471	100750	2159	8203	31	127	3861	2373
Malappuram	1193504	4544	48	1198096	52479	834	365	1	14	1658	366
Kozhikode	1028288	4064	120	1032472	25963	1645	259		41	906	538
Cannanore	1000372	3145	99	1003616	46346	1291	278	3	57	4796	543
STATE	11844548	361941	965	12207454	393714	35103	16245	96	801	18649	9983

TABLE 7.1 (Contd.)

District	Ghains			
	Tractors*	More than 5	Less than 5	Percian wheel
	50	51	52	53
Trivandrum	99	47	15	147
Quilon	184	137	114	200
Alleppey	430	181	153	578
Kottayam	306	40	59	1169
Idukki	81	12	33	203
Ernakulam	404	57	44	529
Trichur	292	115	61	369
Palghat	482	53	32	515
Malappuram	87	38	7	215
Kozhikode	166	219	135	303
Cannanore	221	93	56	404
STATE	2752	992	709	4632

* Tractors include all private and Government Tractors



PART IV

Appendices

1. Working Class Cost of Living Indices
 2. Parity Index
 3. Quarterly Retail prices
 4. Export of Agricultural Commodities
 5. Notes on certain crops
 1. Tea
 2. Coffee
 3. Rubber
 4. Cardamom
 5. Pepper
 6. Ginger
 7. Lemongrass
 6. Classification of soil in Kerala
 7. Conversion ratio between the raw materials and the processed products
 8. Average analysis of important fertilisers
 9. Insect pests affecting paddy crop, their distribution and some practical methods of control
 10. List of centres selected for recording meteorological information.
 11. Glossary of English, Botanical and Malayalam names.
 12. Estimated Area, Mean yield and production of rice relating to
Autumn Crop of paddy 1974.
 13. Do. Winter paddy 1975.
 14. Do. Summer paddy 1975.
-

1. Working Class Cost of Living Indices

The average consumer price index numbers in 13 selected centres of the state during the year 1973-74 and 1974-75 are furnished in the following table:

TABLE NO. I

Centre	Average cost of living indices	
	1973-74	1974-75
Trivandrum	1271	1580
Quilon	1268	1579
Punalur	1252	1568
Alleppey	1249	1548
Chengannacherry	1271	1570
Shertallay	1286	1545
Kottayam	1286	1577
Munnar	1291	1574
Alwaye	1283	1563
Ernakulam	1284	1584
Trichur	1263	1582
Chalakyad	1236	1580
Kozhikode	1420	1767

The monthwise details have been furnished in Table I of the appendix.

2. Parity Index:

The index of parity between prices received and prices paid by farmers during each month is given below for the years 1973-74 and 1974-75.

TABLE II
Index of Parity

Months	1973-74	1974-75
July	106	110
August	105	107
September	103	103
October	106	101
November	106	100
December	105	103
January	108	102
February	110	101
March	112	101
April	116	101
May	118	99
June	115	94
Average	109	102

Quarterly retail prices:

The trend of quarterly retail prices of 12 important commodities is discussed in the following paragraphs.

1. *Rice (F. P.)*.—The price per kg. varied from Rs. 1.50 to Rs. 1.64. The lowest and the highest prices are reported from Cannanore in the 1st quarter of the year and from Idukki in the 4th quarter.
2. *Chillies*.—The price fluctuated from Rs. 7.50 to Rs. 13.17 during the year. The maximum price is reported from Crivandium in the 4th quarter.
3. *Tapioca*.—The lowest price of 41 p. and the highest price of 88 ps. per kg. were reported from Ernakulam and Cannanore respectively. The price quoted at Cannanore is uniformly higher than in other districts. This is said to be due to the superior quality of the tapioca grown there.
4. *Blackgram*.—The price of blackgram varied within the range at Rs. 2.20 and Rs. 3.32. The highest price ruled at Idukki whereas the lowest is reported from Trichur.
5. *Tea*.—The highest and the lowest prices are Rs. 17.75 and Rs. 9.41.
6. *Coffee*.—The price of this commodity fluctuated between Rs. 8.94 and Rs. 16.00 per kg. The high price was reported from Cannanore and the low price from Ernakulam.
7. *Sugar*.—The price stood steady at Rs. 2.15 per kg.
8. *Coconut oil*.—The price varied from Rs. 7.99 per litre in the 4th quarter at Kottayam to Rs. 12.17 in the second quarter at Idukki.
9. *Gingelly oil*.—The lowest price of Rs. 8.57 per litre is reported from Kottayam and the highest price of 10.73 from Quilon. The first quarter was the high price period and the third quarter the low price period.
10. *Coconut*.—The lowest price of coconut reported for the year is Rs. 76.80 per 100 Nos. This price relates to the fourth quarter of the year in Trivandrum District. The highest price is Rs. 136.83. This is reported from Idukki District in the second quarter of the year.
11. *Tobacco (Jaffna)*.—The price fluctuated between Rs. 9.00 and Rs. 15.10 per kg.
12. *Tobacco (ordinary)*.—The highest price quoted during the year is Rs. 12.40 and the lowest Rs. 7.00. The high price and the low price centres are Kozhikode and Quilon respectively.

TABLE I

Statement of Consumer Price Index Numbers for the agricultural year 1974—75.

Serial No.	Centre	1974												Average
		July	August	September	October	November	December	January	February	March	April	May	June	
1	Trivandrum	1490	1500	1531	1506	1589	1590	1589	1577	1590	1655	1661	1686	1580
2	Quilon	1496	1506	1531	1502	1586	1587	1587	1575	1586	1653	1658	1684	1579
3	Punalur	1486	1491	1520	1491	1572	1575	1576	1566	1577	1640	1647	1673	1568
4	Alleppey	1478	1483	1504	1473	1555	1556	1557	1543	1552	1612	1617	1641	1548
5	(Changanacherry	1494	1504	1528	1499	1583	1578	1573	1562	1573	1634	1640	1668	1570
6	Kottayam	1505	1514	1543	1507	1584	1576	1579	1568	1581	1643	1649	1675	1577
7	Alwaye	1499	1504	1523	1495	1573	1568	1563	1552	1562	1626	1634	1656	1563
8	Ernakulam	1514	1522	1545	1511	1591	1589	1586	1575	1587	1650	1658	1685	1584
9	Trichur	1511	1519	1540	1506	1588	1587	1583	1574	1586	1650	1656	1684	1582
10	Chalakudy	1513	1520	1541	1509	1585	1583	1578	1567	1580	1645	1653	1683	1580
11	Munnar	1501	1511	1534	1506	1582	1576	1576	1564	1576	1639	1646	1675	1574
12	Sherthalai	1468	1476	1501	1476	1549	1552	1553	1542	1554	1613	1619	1642	1545
13	Kozhikode	1685	1695	1729	1693	1780	1772	1769	1757	1769	1838	1846	1876	1767

TABLE 2

Index Numbers of parity between prices received and paid by farmers—1974-75.

Parity		
	July	110
	August	107
	September	103
	October	101
	November	100
	December	103
	January	102
	February	101
	March	101
	April	101
	May	99
	June	94
	Average	102

TABLE 3
Quarterly District Average Retail Prices for 1974-75

Sl. No.	Name of Commodity	Unit	Quarter	Trivandrum	Quilon	Alleppey	Kottayam	Idukki	Ernakulam	Trichur	Palghat	Malappuram	Kozhikode	Cannanore		
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15		
1.	Coconut	100	I	89.98	94.96	91.62	105.00	133.75	103.23	97.82	95.38	91.75	98.63	108.33		
			II	93.76	102.79	92.70	109.90	136.83	102.98	107.75	106.36	107.75	106.36	91.67	100.14	105.65
			III	90.17	94.58	94.21	101.62	135.38	99.97	99.63	104.17	100.00	103.15	102.03	103.15	102.03
			IV	76.80	80.66	80.75	87.19	104.17	85.32	86.34	81.83	97.92	90.36	85.64	90.36	85.64
2.	Coconut Oil	Lit.	I	11.03	10.62	10.68	10.48	12.04	11.33	11.30	11.08	11.08	10.85	10.60	11.31	
			II	11.30	10.90	10.87	10.41	12.17	11.41	11.46	11.03	11.15	11.03	11.15	10.50	11.31
			III	10.31	9.77	9.64	9.51	11.15	10.26	10.30	10.44	10.33	9.76	10.49	9.76	10.49
			IV	8.65	8.16	8.12	7.99	9.16	8.71	8.58	8.49	8.40	8.32	8.75	8.32	8.75
3.	Rice (F.P.)	kg.	I	1.60	1.60	1.59	1.59	1.62	1.59	1.59	1.59	1.59	1.60	1.59	1.50	
			II	1.60	1.60	1.63	1.60	1.62	1.60	1.60	1.62	1.59	1.63	1.62	1.60	1.61
			III	1.61	1.61	1.61	1.60	1.62	1.61	1.61	1.62	1.61	1.62	1.61	1.61	1.61
			IV	1.62	1.62	1.62	1.61	1.64	1.62	1.61	1.62	1.61	1.62	1.62	1.61	1.61
4.	Blackgram	kg.	I	2.52	2.66	2.52	2.33	3.08	2.50	2.50	2.20	2.45	2.82	2.33	2.26	
			II	2.58	2.73	2.39	2.27	3.07	2.48	2.24	2.47	2.24	2.47	2.99	2.47	2.31
			III	2.63	2.73	2.40	2.32	3.08	2.53	2.27	2.51	2.27	2.51	3.05	2.62	2.35
			IV	2.83	3.06	2.60	2.51	3.32	2.69	2.47	2.88	2.47	2.88	3.12	2.62	2.38
5.	Gingelly Oil	Lit.	I	10.30	10.73	9.37	9.05	10.63	9.91	9.24	9.66	9.44	9.44	9.06	9.68	
			II	10.32	10.26	9.31	8.86	10.19	9.95	9.38	9.75	9.38	9.75	9.44	8.95	9.52
			III	10.07	9.90	9.13	8.57	9.98	9.78	9.13	9.49	9.13	9.49	9.00	8.88	9.29
			IV	10.10	9.90	8.84	8.73	10.00	9.65	8.98	9.00	8.98	9.00	9.05	8.77	9.38

TABLE 3 (contd)

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
6.	Tapioca	kg.	I	0.43	0.48	0.55	0.58	0.58	0.53	0.50	0.48	0.57	0.55	0.69
			II	0.42	0.44	0.48	0.54	0.55	0.41	0.45	0.45	0.50	0.49	0.72
			III	0.46	0.50	0.47	0.57	0.55	0.42	0.43	0.50	0.54	0.45	0.74
			IV	0.49	0.53	0.53	0.56	0.56	0.48	0.46	0.53	0.61	0.46	0.88
7.	Sugar (F. P.)	"	I	2.15	2.15	2.15	2.15	2.15	2.15	2.15	2.15	2.15	2.15	2.15
			II	2.15	2.15	2.15	2.15	2.15	2.15	2.15	2.15	2.15	2.15	2.15
			III	2.15	2.15	2.15	2.15	2.15	2.15	2.15	2.15	2.15	2.15	2.15
			IV	2.15	2.15	2.15	2.15	2.15	2.15	2.15	2.15	2.15	2.15	2.15
8.	Chillies	"	I	8.48	8.16	7.93	7.50	8.30	8.15	8.26	8.33	7.93	8.14	8.45
			II	10.04	9.72	9.58	8.97	9.97	10.01	10.12	10.25	10.27	9.91	10.43
			III	9.87	9.75	10.10	9.42	10.81	10.25	10.32	10.51	10.76	9.88	10.39
			IV	13.17	12.96	12.49	12.18	12.73	12.77	12.78	12.75	12.50	12.83	13.12
9.	Coffee Powder	"	I	14.78	11.59	10.93	10.19	11.77	8.94	11.77	12.14	13.75	12.04	13.05
			II	15.66	12.00	11.55	10.44	12.00	9.46	12.40	13.98	14.83	13.16	13.54
			III	15.55	14.80	11.79	11.22	12.00	9.62	14.11	14.80	15.00	13.35	15.81
			IV	15.75	15.29	11.96	11.58	12.00	11.95	14.18	14.90	15.00	13.38	16.00
10.	Tea	"	I	14.91	15.53	9.44	9.41	10.31	10.77	14.69	11.20	15.48	13.32	14.14
			II	16.45	17.33	10.46	9.96	12.31	12.73	16.43	13.11	16.43	14.98	15.11
			III	17.04	17.63	10.52	10.03	10.98	12.68	16.73	13.13	16.00	15.49	16.77
			IV	17.20	17.75	10.39	10.63	11.11	13.57	16.78	13.59	16.00	15.50	16.93
11.	Tobacco (J fina)	"	I	9.50	9.00	9.52	9.75	N.A	11.57	15.10	..	..	..	10.61
			II	9.50	9.00	9.75	9.46	N.A	11.53	15.10	..	..	..	10.53
			III	10.46	10.55	10.77	11.05	11.50	11.80	13.30	..	..	..	..
			IV	11.10	11.64	12.48	11.75	14.08	12.68	13.80	..	..	..	..
12.	Tobacco (Ordinary)	"	I	9.75	7.00	8.00	8.50	8.83	9.89	10.13	9.13	8.50	10.79	9.21
			II	9.75	7.00	8.00	8.34	9.50	9.92	10.13	9.25	8.50	10.50	9.58
			III	10.52	7.73	8.58	9.44	9.67	10.24	10.88	9.74	9.60	10.80	9.56
			IV	11.80	8.00	10.00	10.00	10.58	10.87	11.38	9.95	10.93	12.40	10.13

TABLE 4

Foreign export from the ports of Kerala 1973-74

Sl. No.	Commodity	Unit	Quantity	Value in lakhs (Rs.)
(1)	(2)	(3)	(4)	(5)
1.	Cardamom	M. T.	526	334.67
2.	Cashew kernels	"	56328	9172.26
3.	Cashew shell oil	1000 lit.	3970	59.03
4.	Coffee	M. T.	41791	4050.14
5.	Coir & coir products	"	49613	1738.81
6.	Ginger	"	3624	206.72
7.	Lemongrass Oil	1000 lit.	360	207.76
8.	Marine products (including frog legs)	M. T.	31302	5985.53
9.	Oil cake	"	5041	68.92
10.	Pepper	"	29288	3014.14
11.	Rubber manufacture	Value	..	28.00
12.	Tea	M. T.	46837	3330.19
13.	Wood and timber	Value	..	1337.43
14.	Sundries	"	..	2757.84
Total			..	32291.44
Provisional figures.				

Notes on Certain Crops in Kerala

1. TEA

India continues to be the biggest producer of tea in the world. Tea is one of the principal foreign exchange earners. Tea industry substantially contributes to the national exchequer and also provides employment to a large number of people. India accounts for nearly 46% of the world production of tea. India ranked first among the exporters of tea in the international market but of late Ceylon has wrested the first rank from India.

Climate.—A hot moist climate is most suitable for tea plantation, the temperature varying from 55 F to 95 F and an annual rainfall ranging between 100 to 130 inches. Tea is usually cultivated at altitudes ranging from 3000 feet to 5000 feet, above mean sea level.

Soil.—The best soil suitable for the successful cultivation of tea is a light friable soil of good depth through which water percolates freely.

Planting.—After removing the forest growth and providing for roads, drains and building sites the planting is done. The actual spacing of the plants will depend upon the layout of the land used for cultivation. They are usually planted in square rectangular or triangular patterns suitably spaced so that when mature they cover the ground almost completely without overcrowding and providing for a coverage of about 3000 plants per acre. "Hedge Planting", i.e., planting in rows 5° apart with a spacing of 2 ft. between the bushes in a row is also done in new estates. Before planting is done pits of 9" x 5 square and 18" deep are taken and the pits filled with the soil best suited for the cultivation of tea.

Planting will begin in June or July depending mainly upon the south-west monsoon. Water is essentially needed for the young plants for the first two or three months after planting. Young plants taken from the nursery are preferred to the seeds. Usually those plants are removed from the nursery after 6 to 18 months with great care so that the tap root of the plant is not damaged and planted in the places fixed for the purpose.

Pruning.—When the plants are about two years old and five to six feet high, they are pruned to stimulate lateral growth and to develop them into a bush.

Plucking.—Plucking is usually done by women and children. The young and freshly sprouted leaves with "two leaves and a bud" are plucked. Plucking is done throughout the year in several rounds. The period of one round varies according to the altitude of the land. In the high ranges the plucking rounds cover a period up to fourteen days whereas in the plains the period is only seven or eight days.

Manure.—The important manures used are mixtures of nitrogen, phosphorous and potash. In some estates ammonium sulphate is also widely used.

Yield.—The average yield of a good estate is about thousand pounds of prepared tea per acre.

Diseases:—There are many kinds of diseases and attacks on the tea bush. Tea mosquito, the red spider and thrips are some of the important pests attacking the crops.

Life of the plant; The average life of a Tea plant varies from 60 to 80 years. From the garden to the market—The leaves plucked from tea gardens have to undergo a series of processes before it appears in the market for sale.

In the tea factory, the leaves are spread on a wire mesh a hessian cloth rack for a period of eighteen hours for eliminating moisture so that it can be rolled easily. The next stage is called rolling. A rolling machine specially made for this purpose with pressure adjustments is used to twist the leaves for breaking the leaf cells so that the leaf juices ooze out. Then the rolled leaves are taken from the rolls breakers and put in the fermentation room. Fermentation is a process of oxidation where the leaves undergo a chemical change. The green colour of tea leaves change into reddish hue of copper. The next process is known as drying. Hot air (200 to 230) from the drier furnace is forced into the chamber where the leaves are dried.

The last two processes are grading and packing. There are two important classifications of grade. They are leaf grades and broken grades. The former group is mainly divided into Orange Pekoe, and Pekoe Souchong, Broken Orange Pekoe, Broken Pekoe, Broken Souchong. Fannings and Dust are important broken grades. They are then packed category-wise and sent to the market for sale.

Besides the black tea the manufacture of which has been described above, green tea is also manufactured in India small quantity. In this process the fresh leaf is subject to heat treatment by steaming or roasting. The green leaf after the heat treatment is rolled and dried, the process being repeated till the desired degree of dryness is reached.

2. COFFEE

Coffee was first discovered in Africa although the earliest cultivation was begun in southern Arabia. Coffee, an important plantation crop, was introduced in India from Arabia. The production of Coffee in India is only 1% of the world production. There are two main species of coffee grown in India, namely, Arabica and Robusta. Robusta flourishes at lower levels and has more power of resistance against extremes of climate and pests and diseases. It is easily distinguishable from Arabica by the size of its leaves and appearance of the berries.

Climate:—Coffee is a tropical plant. It is successfully cultivated in places where the altitude is ranging between 1500 and 6000 feet, above mean sea level. The most suitable altitude is between 2500 ft. to 5000 ft. It needs a well distributed rainfall of about 60 to 80 inches per annum and

a distinct rainy and dry season with a minimum average temperature of 70 F. A good dry spell from about December to March with a few intermittent showers in March and April and heavy rainfall in July and August constitute ideal condition for the growth of the coffee plant (Report of the Plantation Enquiry Commission of Coffee, 1956, Government of India).

Soil:—Coffee requires sandy soils or clay loam soils with a good sub-soil drainage system.

Planting:—Coffee is grown from seed usually. It is also propagated through cuttings from mature trees or shoots. Propagation from seeds is usually done in January or February in well prepared nursery beds. It is essential that the nursery beds must have shades to protect the tender shoots. These plants are to be transplanted after four to six months in the nursery. When the plants are twenty inches in height they are finally transplanted. The spacing between each plant is ordinarily eight to nine feet. The plants are manured well and watered frequently.

In the second method of propagation lower branches of the trees are beat down under the earth for at least four months so as to enable new roots to sprout up from these branches.

Shade trees are provided in coffee plantation for protection of tree from the full intensity of the sun and for soil conservation.

Pruning:—Usually the coffee plants begin to bear fruit within 5 to 7 years of planting. The colour of the berries is green at first. The colour slowly changes to golden and then to bright red. These red cherries are plucked up by hand. Several pluckings are necessary before a crop is completely harvested.

Manure:—The important manures used for the coffee plants are super-phosphate, ammonium sulphate, copper sulphate and urea.

Yield:—Under good climatic conditions a coffee plant yields $\frac{1}{2}$ to 2 lbs. of green coffee in a season. Good yield may be obtained from a plant for a period of 20 to 30 years. Excessive rains or want of rains in the blossoming season will adversely affect the yield.

Diseases:—The following diseases are prevalent in the coffee estates. They are (1) Coffee stem borer (2) Shot hole borer (3) Leaf disease (4) Root-rot (5) Die-Back (6) Chlorosis and (7) Green bug.

From garden to the market:—There are two processes by which raw coffee is cured. They are known as 'dry' and 'wash' methods. By the first method the coffee cherries are washed and spread out on the cement floors in the open air for drying. When they are completely dried they are allowed to run through fanning and hulling machines.

The second process known as wash process is entirely different. The cherries are put in the pulping machine which breaks them the pulpy skin of the cherries are automatically removed. Then those cherries are put into big tanks for about 24 hours. A jelly like substance known as 'Honey'

will be formed by these cherries due to fermentation. This honey is removed by thorough washing (canals). Then these cherries are spread out to dry for 2 to 3 weeks. When these are completely dried they are put through hulling and polishing machines. The coffee prepared by the wet method is called parchment. For preparing parchment coffee only ripe berries can be utilised.

Berries at different stages of maturity have to be converted into cherries. They are then graded and packed. The important grades are arabica cherry, arabica parchment, robusta cherry and robusta parchment.

3. RUBBER

In India attempts were first made to plant rubber in Belgeum and Ratnagiri in the Bombay State. 94% of the total area under rubber is in the Kerala State. 92% of the total production of rubber in India is also from Kerala. India's place in the world acreage under rubber is comparatively very low. India's production comes to 2.2% of the total world output of natural rubber. Before a tyre factory was established in India in 1938 the raw rubber was exported to the foreign countries. Owing to a record production of rubber on the one hand and the lower off take by the industry on the other, rubber experienced a problem of surplus in the last one or two years. Consequently rubber growers in the country were confronted with a perceptible fall in rubber prices. Even state intervention by way of fixation of a floor price and the entry of the State Trading Corporation into the market could not solve the problem to any considerable extent.

Climate:—Rubber usually grows in the tropical belt lying within 15° N and 10° S of the equator and usually at an altitude of 1000 ft. above sea level. For the cultivation of rubber a warm and humid climate is necessary. The annual rainfall should be between 80-120 inches and should be well distributed.

Soil:—A still alluvial soil which is neither too steep nor too swampy is suited for cultivating rubber.

Planting:—Young plants or seeds are planted in pits of about 18" x 18". The planting season is from May to September. Usually 150 to 200 plants are planted in an acre.

Tapping:—Tapping of rubber will begin seven or eight years after planting. The period of tapping is from September to January.

Diseases:—There are two serious leaf diseases of rubber now prevailing in India. They are 'oidium hevea' and 'phyto-phthora meadi' which cause secondary leaf fall. These diseases affect the growth of the tree and the yield of the tree. Another disease known as Brown Blast is prevalent in the trees which are used for frequent tapping. The symptom of the disease is the cessation of the latex production by the trees in the affected portions of the bark.

From the estate to the market:—The latex brought by the tappers is first of all freed from sand, bark and other impurities by straining at the coagulating shed constructed specially for the purpose. In the case of crape rubber coagulation is done by using acetic acid. For changing latex into sheet rubber the latex after being bulked and diluted is put into shadow pans. For removing water and for getting a definite shape the coagulum is pressed by hand. Then these sheets are allowed to pass two or three times between smooth rollers. The sheets are usually again passed through a machine for printing the trade mark of the estate. These sheets are washed. Then these sheets are placed in specially constructed houses known as smoke houses, and hot air with temperature of 115 to 120 F is allowed to circulate in the room. This is done for 15 days. The colour of the sheet will change from white to black. There are three important types of rubber, smoked sheet, late crape and scrap rubber.

Of these the most important one is smoked sheet.

4. CARDAMOM

The important cardamom producing countries are India, Ceylon and Indo-China. India is the largest producer of cardamom in the world. Cardamom is taken from the plant *Ellettaria cardamom*. Kerala ranks first as the largest producer of cardamom. 80% of the world output of this valuable spice is produced in India. India's competitors are Ceylon, Indo-China and Guatemala. Cardamom possess an aromatic odour and it is commonly used for flavouring and medicinal purposes.

Climate:—The best climate suitable for the cardamom cultivation is a warm and humid atmosphere with a temperature ranging between 50-95F. It is cultivated in the shades of huge forest trees. Cardamom plants require a fairly well distributed and annual rainfall of 60-80 inches. The best altitude for cardamom planting is between 2500 to 5000 ft.

Soil:—Cardamom is cultivated usually in high ranges which has a fairly deep rich loam soil and a place sheltered from strong winds and too much sunlight.

Planting:—During February-March the forest land chosen for planting the cardamom is cleared. But care is taken that big trees providing shades are not cut down. Small pits of 2 ft. squares and one foot deep are dug, the distance between one pit and the next varying from 8 to 10 ft. thus providing for about 700 pits in one acre of land. During the month of May or June when the South-West monsoon sets in, the seeds are sown. Cardamom plants are usually prepared in specialised nurseries. The plants raised from seeds are usually free from any kind of diseases. When these plants attain one year of growth they are transplanted. Usually two plants are planted in one pit. In August-September the stagnant water is allowed to drain off.

Plucking.—The crop begins to yield from the third year onwards and annually thereafter. The harvest will begin in the month of August of the third year of growth and lasts for nine months. The fruits are gathered at intervals of 30 to 40 days.

Yield.—The first yield is low. The yield attains a normal stage by the fifth year.

Life of the plants.—Nine years is the average life of the plant.

Manure.—The important manures used are well-rotten cattle manure, sheep and fish manure and leaves of *phyllanthess emblica*. A mixture of caster cake bone-meal and potassium chlorate is also considered to be a good manure.

Diseases.—The most important diseases affecting the cardamom plantations is the virus diseases 'Katte' which is rampant in most cardamom plantations. The symptom of the diseases is the mottling or curling of the leaves and degeneration of the clumps. The remedy lies in the roguing of affected plants. Another menace is that caused by Thrips, mite etc. Dusting the plants with gamaxone is the remedy.

From the estate to the market.—The capsules of the cardamom are dried in the sun or specially built dry houses by using artificial heat. Usually 3-4 days are taken for drying the cardamom in the sun-light but at the same time 48 hours is only needed for artificial drying. The sub-dried produce retains the mucilaginous coating on the seeds and possesses characteristic sweet aroma. The dried capsules are then cleaned. The final product of green cardamom is 20 to 28% of the green harvested produce.

Sometimes bleaching is done by exposure to sulphur fumes. This changes the colour of the skin of the capsule to white and it helps to preserve it for longer periods.

Then they are graded. There are three important grades (1) green cardamom (2) white or bleached cardamom and (3) seeds. The quality of cardamom varies according to place and variety of the seed.

The middle-east and sweden absorbed a large quantity of the exports of cardamom from India.

5. PEPPER

Kerala is famous for her pepper from time immemorial and is the chief producer of pepper in India. Black pepper which is one of the important spices is produced mainly by India and Indonesia. During the post-war period India stands as the largest producer of pepper in the world.

Climate.—Pepper being a rain fed crop-grows best in tropical regions where there is an average rainfall of 80 inches. The lower and upper limits of temperature in which the crop can flourish are 50 F and 140 F. It grows in places with altitude less than 3000 ft.

Soil.—The suitable soils for pepper cultivation are clay loam, red loam or sandy loam soils, the first being the most suitable.

Planting.—The crop is propagated vegetatively by means of cuttings. It is a wood climber and requires some support for the vines. Jack and mango trees are commonly used as support for vines. Murukku trees are also used. On a plantation basis they are planted at a distance of 10 f. apart. The vine is rarely allowed to grow beyond a height of 20 ft. lest the plucking of the pepper berries become difficult.

Plucking.—The vines begin to bear after three years of planting. Flowering period is from June to July. The harvesting period is from December to March. When ripe the colour of the berries is orange. The berries are allowed to dry in the sun in mats for a week till the colour become black. Some times the skin of the ripe berries is removed before drying. This kind pepper is known as white pepper and is produced only in limited quantities.

Yield.—The yield mainly depends upon the fertility of the soil and the locality. The yield at the first harvest is generally poor. Full yield can be expected from the seventh year. Usually in an acre there will be 300 to 400 standards where pepper is cultivated on a plantation scale. The average yield per standard varies between $\frac{1}{4}$ lb. to 2 lb. of dried produce.

Life of the plant.—The life of the plant ranges between 25 to 30 years. But rarely some varieties have been found to live up to 60 years.

Manure.—The best manures to be used for the pepper gardens are powdered bean-cake, fish guano and dried prawn.

Diseases.—One of the major disease that affects pepper is 'Pollu' by which the pepper berries are rendered hollow.

From garden to market.—The dried black pepper is graded and packed. The pepper is generally packed in double gunny bags. Pepper is mainly exported to U. S. A. and U. K.

6. GINGER DRY

The three important ginger growing regions are India, Jamaica and Sierra-Leoans. Of these ginger producing regions the best variety is seen in Jammaica and Sierra Leona. Indian Ginger contains more fibre content.

Climate.—Ginger requires heavy rainfall. It needs a warm humid climate and considerable shade.

Soil. The soils suitable for ginger cultivation are well trained sandy clay, loam, red loam or lateriate soils.

Planting.—Planting usually begins by the end of May or beginning of June before the commencement of the heavy rains. Ginger rhizomes (underground stem) are planted. Before planting the ground is ploughed and manured. The seeds are planted in these beds in small pits at a distance of 6-10 inches. After planting the beds are covered with leaves

with a view to protect the young shoots from the onslaught of the rain and to serve as manure also. The crop takes nine to ten months to attain maturity. In July-August weeding and manuring is done.

Harvesting.—The harvesting is done by digging out the rhizomes.

Manure: Usually cattle manures are used.

Yield: The yield is generally eight to ten times of the seed rate. Here in Kerala the average yield of ginger is about 1.5 tonnes per hectare.

Pests and diseases.—Ginger crop is usually affected by a disease known as (soft root). The colour of the green plants are changed into pale yellow and the production goes down. Use of mercuric chloride (0.05%) for treating the rhizomes sorted as seed is advocated as a preventive measure. Another important disease is known as 'varmicularia'. The leaves become covered with yellowish and brownish spots and gradually dry up. Spraying and Bordezex mixture is suggested in such cases.

From garden to the Market.—Dry ginger as a market produce is prepared as follows: Then they are soaked in water and kept over night. In the morning they are cleaned well. Then these rhizomes are allowed to dry for a week in the hot sun. They are again cleaned. The ginger is known as the 'rough' or 'unbleached ginger' of commerce.

There is another variety of ginger known as 'lime ginger' or 'bleached ginger'. The process is a bit different from the above. The green ginger is put in shallow cisterns and they are cleaned by water repeatedly. When they are finally cleaned they are put in a solution containing milk of lime for sometimes after which they are dried in the sun. This process of dipping in lime and drying will be continued a number of times until the rhizomes get a uniform coating of lime.

Then they are graded. There are three important export grades B, C and D, B quality ginger will have three fingers. The other two grades (C & D) have two fingers and one finger respectively.

The B & C grades are exported to foreign market. The D grade being small pieces of ginger is mostly consumer internally in India.

Indian ginger is mainly exported to Aden, Arabia and United Kingdom.

7. LEMONGRASS OIL

Lemongrass Oil which is an important raw material for the perfumery soap and cosmetic industries is extracted by distilling the leaves of the grass 'cymbopogon, Flexrosus, stapf'. The important lemongrass growing areas are Ceylon, Java West Indies, Malaya, Guatemala and India are holding almost a monopoly in the world market. In India, Kerala is the most important producer of this crop. The major lemongrass growing areas are Kuruppampadi, Odakkali, Thodupuzha, Muvattupuzha, Mynad Thali-paramba etc. At Odakkali, there is a lemongrass oil research station.

Climate.—It grows on the fertile hill slopes. The grass grows when the monsoon begins.

Soil.—It flourishes in hard lateriate soils.

Cultivation.—Fertile hill slopes with hard laterite soils are selected for the cultivation. During February-March the Site selected is first cleared of all undergrowth of vegetation by burning them. In April-May the land is ploughed and is prepared into long narrow beds for cultivation of lemongrass. Usually in one acre 15 to 20 lbs. of seeds are sown. The seeds are sown broadcast. The crop is also grown by transplanting of seedlings raised in separate nurseries. There are two varieties of lemongrass, red stem and white stem. The former variety gives better quality of oil containing greater quantity of citral.

Harvesting.—Generally harvesting will be five months after sowing. The harvesting has to be done before the flowering season of the crop. Five cuttings are annually taken. After the first cutting subsequent cuttings are done at intervals of 30 to 45 days. Usually the harvesting season ends by December.

Life of the Plant.—The life of the lemongrass plant is 5 to 8 years.

Yield.—The yield of the crop under different years is given below:—

1st year	1½	dozen	bottles of	22 oz.	each
2nd „	2½			„	
3rd „	2			„	
4th „	2			„	
5th „	2			„	

From the garden to the market.—Now in Kerala we are using an old country method for distilling the lemongrass oil. The old apparatus consists of copper boiler, condenser (oil) receiver and wooden tube.

The raw grass and water are put in the boiler specially made for this purpose. The shape of the boiler is like a retort apparatus. Then the boiler is heated with fire wood. After sometime a mixture of water vapour and essential oil escapes through the copper spiral connected to the retort. This copper spiral is allowed to cool down by immersing it in a wooden bucket full of water. The wooden bucket an opening near the bottom to let off the water as it becomes hot during the distillation time. The essential oil and water will be collected in the receiver tub. The specific gravity of the essential oil is lower than water. At 30°C specific gravity is 0.878. So naturally the lemongrass oil floats at the top of the receiver tub. Then it is separated from water.

Lemongrass oil is packed in steel drums which has a capacity of 40 to 45 gallons. Lemongrass oil is mainly exported to U.S.A. and U.K.

6. Classification of soils in Kerala

District	Type of soil	Details of Distribution
(1)	(2)	(3)
Trivandrum	1. Fairly rich brown loam of laterite origin	Middle part of the District
	2. Sandy loam	Western coastal region
	3. Richest dark brown loam of granite origin	Eastern hilly part of the District
Quilon	1. Sandy loam	Karunagappally and part of Quilon Taluk
	2. Laterite soil	Kottarakkara, Kunnathur and part of Quilon, Pathanapuram and Pathanamthitta Taluks
	3. Hill & forest soil	Part of Pathanapuram and Pathanamthitta Taluks
Alleppey	1. Sandy loam	Karthigappally and Mavelikara Taluks
	2. Sandy soil	Sherthallai and Ambalappuzha Taluks
	3. Clay loam with much of acidity	Kuttanad
	4. Lateric soil	Chengannur and part of Mavelikara
Kottayam	1. Laterite soil	Peermade and part of Meenachil Changancherry and Kottayam Taluks
	2. Alluvial soil	Vaikom parts of Changancherry and Kottayam Devikulam and Udumbanchola
Ernakulam	1. Laterite	Thodupzha and Muvattupuzha and part of Kunnathunad
	2. Sandy loam	Parur, Cochin and Kanyakannur part of Alwaye and Kunnathunad
	3. Alluvial	
Trichur	1. Sandy loam	Part of Mukundapuram, Trichur and Chowgbat Taluks

(1)	(2)	(3)
	2. Laterite	Eastern area of Trichur and Western portion of Thalappally
	3. Granite	Northern part of Thalappally
	4. Clay	Backwater area in Chowghat and part of Mukundapuram
	5. Alluvial soil	Portion of Chowghat and Kunnathunad Taluk
Palghat	1. Laterite	Interior regions of the District
	2. Sandy	Along coastal and river-side areas
	3. Black soil	North-Eastern portion of Chittur Taluk
Kozhikode	1. Laterite	Major part of the district Barring coastal area
	2. Sandy	Coastal strip
Cannanore	1. Laterite	Major part of barring coastal area
	2. Sandy	Coastal area

7. CONVERSION RATIO BETWEEN THE RAW MATERIALS & THE PROCESSED PRODUCT

Rice	Rice (cleaned) production 2/3 paddy production	
Cotton	Cotton lint production 1/3 of kapas production	
	Cotton seed production 2/3 of kapas production	
	2 times of cotton lint production	
Groundnut	Kernel to nuts in shell	70%
	Oil to nuts in shell	28%
	Oil to kernels crushed	60%
	Cake to kernels crushed	60%
Sesamum	Oil to seeds crushed	40%
	Cake to seeds crushed	60%
Caster Seed	Oil seeds crushed	37%
	Cake to seeds crushed	63%
Coconut	Copra to nuts one ton copra	6775 nuts
	Oil to copra crushed	62%
	Cake to copra crushed	38%

Neem seed	Oil to kernel crushed	45 to 50%
	Cake to kernels crushed	50 to 55%
Sugar	Gur from cane crushed	10%
	Crystal sugar from gur refined	62.40%
	Crystal sugar from cane crushed	9.97%
	Khandassari sugar from gur refined	37.5%
	Molasses from the cane crushed	3.5%
Cashewnuts	Cashew kernels	25% of cashewnut
	Butter from mixed milk	6.3%
	Ghee from mixed milk	5.3%

8. AVERAGE ANALYSIS OF IMPORTANT FERTILISERS.

Sl. No.	Name of Fertiliser	Nitrogen (N %)	Phosphate (P ₂ O ₅ %)	Potash (K ₂ O %)
(1)	(2)	(3)	(4)	(5)
1.	Ammonium Sulphate Nitrate	26.0	..	..
2.	Ammonium Sulphate	20.5	..	..
3.	Ammonium Nitrate	33.5	..	..
4.	Ammonium Phosphate	16.0	20.0	..
5.	Calcium Ammonium Nitrate	20.5	..	..
6.	Nitrate of Soda	16.5	..	..
7.	Calcium Nitrate	15.3	..	..
8.	Calcium Cyanamide	20.00	..	..
9.	Urea	46.00	..	..
10.	Super Phosphate—Single	..	18.00	..
11.	Super Phosphate—Double	..	35.00	..
12.	Super Phosphate	..	45.00	..
13.	Rock Phosphate	..	28.3	..
14.	Hyper Phosphate	..	27.3	..
15.	Sulphate of Potash	..	..	48.00
16.	Muriate of Potash	..	..	50.00
17.	Groundnut Cake	7.00	1.5	1.3
18.	Castor Cake	4.3	2.0	1.0
19.	Mustard Cake	4.5	1.5	..
20.	Muhua Cake	2.5	0.8	1.8
21.	Neem Cake	5.2	1.0	1.4
22.	Gingelly Cake	6.2	2.0	1.2
23.	Coconut Cake	3.0	1.9	1.8
24.	Poultry Manure	1.2-1.5	..	..
25.	Sheep Manure	0.8-.6	..	..
26.	Horse Manure	0.8-.6	..	..
27.	Farm yard Manure	0.4	0.3	0.2
28.	Fresh Cow Dung	1.57	0.25	0.18

(1)	(2)	(3)	(4)	(5)
29.	Compost	0.5	0.25	0.5
30.	Bone Meal	3.5	21.0	..
31.	Fish Meal	4.10	3.0	0.3
32.	Blood (dried)	11.5	1.5	0.6
33.	Meat meal	11.0	..	0.6
34.	White Fish Meal	10.0	10.0	1.0

9. INSECT PEST AFFECTING PADDY CROPS, THEIR DISTRIBUTION AND SOME PRACTICAL METHODS OF CONTROL

Sl. No.	Name of Pest	Nature of damage	Control of measure
(1)	(2)	(3)	(4)
1.	Paddy Rice Swarming Catterpillar Spodepiara Mauritia	Defoliation plants reduced to stumps nursery and early growing stages attached Caterpillar bores into stem causing 'dead hearts' white ear heads'	Spray DT. at 1.5 kg a. i. per HA or endrin at 250 gm. a. i. per HA Set light traps in the field to catch and destroy moths. Collect egg masses from nursery plants and destroy them.
2.	Rice stem borer Cryporysa (Schoenobius)	All stages of plants susceptible to attack	Spray Endrin or Parathion at 250gm. a. i. per HA at intervals of 15-20 days starting from 15th day after sowing and up to flowering.
3.	Rice bug (leptocorisa acuta)	Sucks 'milk' of tender grains leaving them chaffy	Dust BHC or spray Endrin or Parathion at doses given above.
4.	Rice Hispa Diclaspis (Hispa) armigera	Adults feed on green matter of leaves and grubsmine leaves	Spray DDT, Endrin or Parathion at above doses
5.	Rices case worm Nympula depunctalis	Caterpillar in leadcase defoliates	..
6.	Paddy gallfly Pachytiplosis oryal W	Maggot bores into central shoot and induces formation of elongated halloo gall called 'silver shoot'	Spray Endrin or Parathion at 250 gm. a. i. per Ha. 4 times at weekly intervals from 15th day after transplantation set up light traps

(1)	(2)	(3)	(4)
7.	Paddy mealy bug	Lives within leaf sheaths in colonies sucking sap causing stunting of crop	Spray parathion at 250 gm. a. i. per Ha Phosphamidon (Dimecro 100 %) solun. at 100 ML, per Ha or Dimothocate (Regor at 312 ml. per Ha).
8.	Paddy leafhoppers to Jassid	Cause weakening of crop by desapping in colonies	Dust BHC
9.	Paddy leaf roller eraphaloerocis mebianalis	Cater pillar floods leaves and feeds on green matter. Attacked fields show white patches.	Dust BHC or spray DDT. at doses given above

List of Reporting Raingauge Stations in Kerala

TRIVANDRUM DISTRICT

1. Ponmudi
2. Varkala
3. Attingal
4. Nedumangad
5. Trivandrum-B
6. Neyyattinkara
7. Parassala
8. Trivan'rum (Aerodrome)
9. Vellayani (AM.)

ALLEPPEY DISTRICT

1. Arukkutty
2. Sherthallay
3. Alleppey-B
4. Ambalapuzha
5. Thiruvalla
6. Chengannur
7. Haripad
8. Mave'ikara
9. Kayamkulam

KOTTAYAM DISTRICT

1. Vaikom
2. Palai
3. Ettumanoor
4. Kott'yam
5. Kanjirappally
6. Changanacherry
7. Kottayam (AM)

QUILON DISTRICT

1. Pathanamthitta
2. Konni
3. Adoor
4. Karunagappally
5. Punalur
6. Kottarakkara
7. Aryankavu
8. Quilon
9. Nilamel
10. Paravoor
11. Kayamkulam (AM)

IDIKKI DISTRICT

1. Chinar
2. Marayur

3. Munnar
4. Devicolam
5. Vandanmedu
6. Kumily
7. Peermadu (Taluk)
8. Peermadu (Residency)
9. Velloor
10. Karikode

ERNAKULAM DISTRICT

1. Malayattur
2. Parur
3. Perumbavoor
4. Alwaye
5. Neriambalam
6. Muvattupuzha
7. Ernakulam
8. Cochin-(b)

TRICHUR DISTRICT

1. Cranganore
2. Mukundapuram
3. Trichur
4. Thalappilly
5. Ollukkara (AM)
6. Peechi (AM)
7. Chalakudy

PALGHAT DISTRICT

1. Alathur
2. Palghat
3. Parali

4. Ottappalam
5. Cherplassery
6. Mannarghat
7. Chittoor
8. Pattambi (AM)

MALAPPURAM DISTRICT

1. Perinthalmanna
2. Ponnani
3. Manjeri
4. Thirurangadi
5. Nilambur

KOZHIKODE DISTRICT

1. Kozhikode
2. Vythiri
3. Quilandy
4. Badagara
5. Kuttiadi

CANNANORE DISTRICT

1. Kasargode
2. Taliparamba
3. Cannanore
4. Hosdurg
5. Tellicherry
6. Irikkur
7. Payyannur
8. Manantoddy
9. Mahe
10. Kasargode (AM)

Non-Reporting Rain gauge Stations Schedule I**TRIVANDRUM DISTRICT**

1. Aruvikara
2. Vamanapuram
3. Nedumangad

QUILON DISTRICT

1. Kulathupuzha
2. Kottarakkara

ALLEPPEY DISTRICT

1. Alleppay

KOTTAYAM DISTRICT

1. Kottayam
2. Pallom
3. Kumarakom

ERNAKULAM DISTRICT

1. Puthencruz
2. Kuthattukulam
3. Kolani

TRICHUR DISTRICT

1. Pazhayannur

PALGHAT DISTRICT

1. Nemmara
2. Nelliampathy
3. Nattukal

KOZHIKODE DISTRICT

1. Kuttiadi
2. Ambalavayal
3. Kuppady
4. Muthunga
5. Lakkidi
6. Thagarappady

CANNANORE DISTRICT

1. Manjeswar
2. Vemoim (Mananthody)
3. Thirunelli (Mananthody)
4. Konnath
5. Chandanathode
6. Peria
7. Chedloth Range
8. Taliparamba
9. Cannanore

Non Reporting Railway Rainuage Stations

- | | |
|---------------|-----------------|
| 1. Kollengode | 6. Angadipuram |
| 2. Thenmalai | 7. Calicut |
| 3. Quilon | 8. Panthalayani |
| 4. Trichur | 9. Olavakkot |
| 5. Alwaye | 10. Shoranur |
| | 11. Cannanore |

11. GLOSSARY OF ENGLISH, BOTANICAL AND MALAYALAM NAMES OF CROPS

Sl. No.	English Name	Malayalam Name	Botanical Name
(1)	(2)	(3)	(4)
1.	Paddy	Nellu	Oryza Sativa
2.	Ragi	Koovaraku	Eleusine Coracana
3.	Jowar	Cholam	Sorghum Vulgare
4.	Bajra	Kambu	A. Pennisetum typhoides
5.	Kodamillet	Varagu	Paspalum Scrobiculatum
6.	Chama	Chama	Panicum Miliare
7.	Wheat	Gothampu	Triticum Vulgare
8.	Bareley	Barley	Hordeum Vulgare
9.	Meize	Mokke Cholam	Zea mays

(1)	(2)	(3)	(4)
Pulses			
1.	Blackgram	Uzhunnu	Phaseolus mungo
2.	Greengram	Cherupayar	Phaseolus Aureus
3.	Horsegram	Muthira	Dolichos Biflorus
4.	Redgram	Thuvara	Cajanus Cajan
5.	Cowpea	Perumpayar	Vigna Sinensis
Sugar			
1.	Sugarcane	Karimbu	Saccharum Officinarum
2.	Palmyrah	Karimpana	Borassus flabellifer
Condiments and Spices			
1.	Chilly	Mulagu	Capsium
2.	Turmeric	Manjal	Curema lenga
3.	Cardamom	E'om	Elatteria cardamomum
4.	Coriander	Kothamalli	Coriandrum Sativum
5.	Mustard	Kadugu	Brassica sp.
6.	Pepper	Kurumulagu	Piper Nigrum
7.	Cumin	Jeerakam	Cuminum Cyminum
8.	Garlic	Veluthulli	Allium Sativum
9.	Long Pepper	Thippilli	Piperlongum
10.	Ginger	Inchi	Zingiber Officinale
11.	Nutmug	Jathi	Myristica Fragrans
12.	Cinnamon	Karukapatta	Cinnamomum Zeylanica
13.	Clove	Grampu	Eugenia Caryophyllate
14.	Cinchona	Cinchona	Cinchona Officinalis
15.	Arecanut	Adakka	Areca Catechu
Fruits			
1.	Banana	Vazha	Musa Paradisiaca
2.	Plantain	Vazha	Musassepientum
3.	Bread fruit	Seemaplavu	Artocarpusincisa
4.	Bullacks heart	Malamunthiri	Anonareticulate
5.	Cashew	Kasumavu	Anacardium Occidentale
6.	Grade Vine	Munthiri	Vitis Vinifere
7.	Custardapple	Seetha Pazham	Anona Squamosa
8.	Guava	Pera	Psidium Guajava
9.	Jujube	Elantha	Zizyphus jujuba
10.	Jack fruit	Plavu	Artocarpus Integrifolia
11.	Lemon	Naranga	Citrus Lemom
12.	Lime	Naranga	Citrus Aurantifolia
13.	Mango	Mavu	Mangifera indica
14.	Papaya	Pappaka	Carrica Pappava
15.	Pineapple	Kaithachakka	Annanas Comasus
16.	Pemogramate	Mathalam	Punica Granatum
17.	Sapota	Sapota	Achras Sapota
18.	Pomello	Bamplimas	Citrus Maxima

(1)	(2)	(3)	(4)
19.	Orange	Orange	Citrus aurantium
20.	Mangoesteen	Mangoesteen	Garcinia mangosteen
Vegetables			
1.	Tapioca	Maracheeni	Manihot Utilissima
2.	Elephantear	Chembu	Colocasia antiquorum
3.	Elephant foot	Chena	Amorphophallus
4.	Potato	Uralakizhangu	Solanumtuberosum
5.	Sweet potato	Cheekikizhangu	Ipomea batatas
6.	Radish	Mullangi	Aphanus sativus
7.	Yam	Kachil	Dioscorea Sps
8.	Turnip	Seema Mullangi	Brassica Campestris
9.	Carret	Carrot	Daucus Carota
10.	Bed pumpkin	Vellarimathan	Cucurbita Maxime
11.	Brinjal	Vazhuthana	Solanum Melongena
12.	Tomato	Thakkali	Lycopersicon esculentum
13.	Amaranthus	Cheera	Amaranthus Sps
14.	Lady's finger	Venda	Abelmoschus esculentus
15.	Bitter gourd	Pavakka	Momordica Charantia
16.	Bottle gourd	Churakka	Lagenaria Siceraria
17.	Snake gourd	Padavalanga	Trichosanthes anguina
18.	Ridge gourd	Peechanga	Luffa acutangula
19.	Sneeth gourd	Chorakka	Luffea cylindrica
20.	Ash gourd	Kumbalanga	Benincasa hispida
21.	Little gourd	Kova	Coccinia cordifolia
22.	Cluster bean	Kothavara	Cyamopsis psoralodea
23.	Sword bean	Vellaringa	Canavalia esculenta
24.	French bean	Beans	Phaseolus vulgaris
25.	Karileaf	Karivappila	Murraya Koenigii
26.	Beet root	Beet root	Beta Vulgaris
27.	Cabbage	Muttakose	Brassica Oleracea
28.	Cauliflower	Cauliflower	Brassica Oleracea
29.	Cucumber	Vellarikka	Cucumis Sativas
30.	Musk Melon	Thaikumbalam	Cucumis melo
31.	Pumpkin	Mathanga	Cucurbitapepo
32.	Indian bean	Amara	Delichos lablab
33.	Drum stick	Muringa	Moringa Pterigosperma
34.	Onion	Ulli	Allium Cepa
35.	Rescapple	Jampa	Engenia Jamos

OIL SEEDS

1.	Coconut	Thengu	Cocos nucifera
2.	Sesamum	Ellu	Sesamum Indicum
3.	Groundnut	Nilakadala	Arachis hypogaea

**12. Estimated Area, Mean yield and production of rice relating to
Autumn Crop of Paddy 1974**

Taluk and District	No. of Experi- ments	Area in hect.	Mean yield of dry paddy in kg./hect.	Standard Error	Production of rice in tonnes
(1)	(2)	(3)	(4)	(5)	(6)
1. Neyyattinkara	18	6005	2237	151	8826
2. Trivandrum	18	4096	2097	205	5643
3. Nedumangad	17	4867	1578	205	5046
4. Chirayinkil	17	3593	1941	245	4582
TRIVANDRUM DISTRICT	70	18561	1976	98	24097
5. Quilon	17	2802	1631	330	3003
6. Kottarakara	18	6331	1579	269	6568
7. Kunnathur	18	3972	2365	130	6172
8. Pathanapuram	13	4400	2724	155	7875
9. Pathanamthitta	15	1096	2009	147	1447
10. Karunagappally	18	2560	2326	86	3912
QUILON DISTRICT	99	21161	2084	101	28977
11. Karthigappally	17	5623	2160	297	7980
12. Mavelikara	18	3736	1780	198	4369
13. Chengannur	16	2070	1396	196	1899
14. Thiruvalla	15	2002	1437	593	1890
15. Kuttanad	18	8632	1627	728	9227
16. Ambalapuzha	17	2033	1747	579	2333
17. Sertihallai	18	6422	1336	234	5848
ALLEPPEY DISTRICT	119	30518	1673	227	33546
18. Changanacherry	18	1584	2233	244	2720
19. Kanjirappally	15	63	2593	196	107
20. Kottayam	18	2683	2177	446	3767
21. Vaikom	17	1412	1814	235	1683
22. Meenachil	17	2018	2408	223	3193
KOTTAYAM DISTRICT	85	8030	2174	102	11470
23. Peermade	Nil				
24. Devicolum	6	285	1766	398	331
25. Udumbanchola	Nil				
26. Thodupuzha	16	3746	2404	192	5917

(1)	(2)	(3)	(4)	(5)	(6)
IDUKKI DISTRICT	22	4031	2359	194	6248
27. Kothamangalam	16	3619	2194	123	5217
28. Muvattupuzha	14	4122	2299	217	6226
29. Cochin	14	3043	1619	188	3237
30. Kanayannur	15	8698	1459	221	8338
31. Kunnathunad	15	7534	2367	274	11716
32. Alwaye	18	6689	1853	177	8143
33. Parur	15	3673	1427	436	3444
ERNAKULAM DISTRICT	107	37378	1886	97	46321
34. Cranganore	18	377	1131	79	280
35. Mukundapuram	18	7507	1580	268	7793
36. Trichur	18	7145	2370	207	11125
37. Thalappally	18	16012	1984	138	20871
38. Chowghat	18	3528	1553	142	3600
TRICHUR DISTRICT	90	34569	1923	98	43669
39. Chittur	18	19432	3396	241	43356
40. Alathur	18	20239	3232	229	43082
41. Palghat	18	26463	3372	353	58626
42. Ottappalam	18	27641	1580	196	28693
43. Mannarghat	18	7081	2437	196	11337
PALGHAT DISTRICT	90	100906	2792	126	185094
44. Perinthalmanna	17	14219	1845	120	17236
45. Ponnani	18	6872	1295	277	5847
46. Tirur	18	10512	1161	151	8018
47. Ernad	17	18993	1512	176	18868
MALAPPURAM DISTRICT	70	50596	1503	89	49969
48. Kozhikode	16	8053	927	148	4905
49. Quilandy	16	10785	1752	245	12414
50. Badagara	18	6037	1134	73	4498
51. South Wynaad	Nil				
KOZHIKODE DISTRICT	50	24875	1335	118	21817
52. North Wynaad	Nil				
53. Tellicherry	18	8687	1624	25	9269
54. Cannanore	18	9175	1761	230	10615
55. Taliparamba	16	10238	2212	313	14879
56. Hosdurg	15	13095	2069	201	17800
57. Karargode	16	23107	2093	139	31774
CANNANORE DISTRICT	83	64302	1996	88	84337
STATE	885	394927	2064	44	535545

13. Estimated Area, Mean Yield and production of Rice relating to Winter crop of paddy—1975

Taluk and District	No. of experiments	Area in hect.	Mean yield of dry paddy in kgs./hect.	Standard error	Production of rice in tonnes
(1)	(2)	(3)	(4)	(5)	(6)
1. Neyyatinkara	17	5945	2130	197	8319
2. Trivandrum	18	4436	2548	167	7426
3. Nedumangad	18	5043	2450	124	8117
4. Chirayinkil	17	4764	2732	100	8551
TRIVANDRUM DISTRICT	70	20188	2444	79	32413
5. Quilon	18	4760	2230	265	6974
6. Kottarakkara	17	7174	2497	351	11769
7. Kunnathur	17	5277	2712	291	9402
8. Pathanapuram	14	5034	2788	229	9221
9. Pathanamthitta	18	2403	2732	242	4313
10. Karunagappally	18	4721	2039	133	6324
QUILON DISTRICT	102	29369	2488	120	48003
11. Karthigappally	17	5949	1705	293	6664
12. Mavelikkara	18	5495	2878	211	10390
13. Chengannur	14	2660	3043	262	5318
14. Thiruvalla	13	2843	2819	193	5322
15. Kuttanad	..	..	..	..	..
16. Ambalapuzha	14	2211	1205	258	1750
17. Sherthallai	17	4414	565	149	1638
ALLEPPEY DISTRICT	93	23572	2007	103	31082
18. Changanacherry	16	1458	3031	288	2903
19. Kanjirappally	17	143	1951	332	183
20. Kottayam	16	7140	2499	276	11723
21. Vaikom	16	7175	1992	257	9390
22. Meenachil	18	3103	2582	310	5264
KOTTAYAM DISTRICT	83	19019	2358	152	29463
23. Peermade	9	90	2643	641	156
24. Devicolam	12	4195	2624	253	7232
25. Udumbanchola	12	1589	2473	256	2582
26. Thodupuzha	16	3315	2890	118	6294
IDUKKI DISTRICT	49	9189	2694	131	16264

	(1)	(2)	(3)	(4)	(5)	(6)
27.	Koithamangalam	17	4712	2734	206	8464
28.	Muvattupuzha	15	7097	2673	182	12463
29.	Cochin	..	..	..	..	..
30.	Kanayannur	17	4689	1984	292	6112
31.	Kunnathunad	16	11301	2402	241	17834
32.	Alwaye	15	10339	2420	215	16438
33.	Parur	16	2132	2338	340	3275
	ERNAKULAM DISTRICT	96	40270	2441	103	64586
34.	Cranganore	18	1581	1060	76	1101
35.	Mukundapuram	18	15482	1743	96	17729
36.	Trichur	18	17699	2306	137	26815
37.	Thalappally	18	16342	2381	146	25564
38.	Chowghat	18	9027	2246	193	13320
	TRICHUR DISTRICT	90	60131	2140	102	84529
39.	Chittur	17	22364	3858	257	56686
40.	Alathur	18	20526	3420	432	46121
41.	Palghat	11	15721	2889	394	29840
42.	Ottappalam	18	17384	2445	163	27925
43.	Mannarghat	18	6279	2675	212	11035
	PALGHAT DISTRICT	82	82274	3175	154	171607
44.	Perinthalmanna	15	5676	2242	197	8361
45.	Ponnani	18	6440	2161	308	9143
46.	Tirur	18	10257	1811	304	12204
47.	Ernad	18	13588	1467	338	13096
	MALAPPURAM DISTRICT	69	35961	1812	167	42804
48.	Kozhikode	16	10275	1970	191	13299
49.	Quilandy	17	6520	1377	202	5899
50.	Badagara	17	3119	1440	97	2951
51.	South Wynad	18	15232	2171	198	21726
	KOZHIKODE DISTRICT	68	35146	1900	109	43875
52.	North Wynad	15	9379	2139	276	13181
53.	Tellicherry	18	3374	1597	103	3540
54.	Cannanore	18	1663	1117	223	1220
55.	Taliparamba	16	6122	1734	339	6974
56.	Hosdrug	18	4261	2068	340	5789
57.	Kasargode	15	4918	2122	190	6856
	CANNANORE DISTRICT	100	29717	1924	127	37560
	STATE	902	384836	2382	44	602186

14. Estimated Area, Mean yield and production of rice relating to summer crop of Paddy—1975

Taluk and District	No. of experiments	Area in (Hec.)	Mean yield of dry paddy in kg./hec.	Standard error	Production of rice in tonnes
(1)	(2)	(3)	(4)	(5)	(6)
1. Neyyattinkara	16	268	2211	218	389
2. Trivandrum	16	340	2109	150	471
3. Nedumanga l	16	107	1764	287	124
4. Chirayinkil	18	462	1789	264	543
TRIVANDRUM DISTRICT	66	1177	1975	126	1527
5. Quilon	18	317	1141	226	238
6. Kottarakara	6	126	1385	346	115
7. Kunnathur	11	157	1749	163	180
8. Pathanapuram	Nil	Nil	Nil	Nil	Nil
9. Pathanamhitta	14	78	2779	219	142
10. Karunagappally	12	478	1865	485	586
QUILON DISTRICT	61	1156	1660	215	1261
11. Karthigappally	17	3543	3233	381	7526
12. Mavelikkara	18	4357	3077	179	8808
13. Chengamur	15	2839	3384	477	6312
14. Thiruvalla	16	2885	3151	192	5973
15. Kuttanad	21	24947	3495	267	57284
16. Ambalappuzha	13	3798	2685	385	6700
17. Sherthallay	Nil	Nil	Nil	Nil	Nil
ALLEPPY DISTRICT	100	42369	3327	169	92603
18. Changanacherry	17	3553	4850	93	11321
19. Kanjirappally	Nil	Nil	Nil	Nil	Nil
20. Kottayam	16	11171	3199	263	23479
21. Vaikom	18	2133	2342	143	3282
22. Meenachil	9	440	2300	250	665
KOTTAYAM DISTRICT	60	17297	3409	172	38747
23. peermade	3	52	1974	..	67
24. Devikulam	Nil	Nil	Nil	Nil	Nil
25. Udumbanchola	Nil	Nil	Nil	Nil	Nil
26. Thodupuzha	Nil	Nil	Nil	Nil	Nil
IDUKKI DISTRICT	3	52	1974	..	67

	(1)	(2)	(3)	(4)	(5)	(6)
27.	Kothamangalam	17	292	1977	164	379
28.	Muvattupuzha	16	397	2037	141	531
29.	Cochin	Nil	Nil	Nil	Nil	Nil
30.	Kanayannur	15	367	1739	256	419
31.	Kunnathunad	16	1682	1899	148	2099
32.	Alwaye	12	3601	1984	388	4694
33.	Parur	12	3876	2508	158	6387
	ERNAKULAM DISTRICT	88	10215	2162	152	14509
34.	Cranganore	6	32	1750	140	37
35.	Mukundapuram	18	4790	1974	438	6212
36.	Trichur	16	6617	2484	325	10799
37.	Thalappally	18	1231	3235	276	2616
38.	Chowghat	18	1596	2069	148	2169
	TRICHUR DISTRICT	76	14266	2329	213	21833
39.	Chittur	9	245	3186	275	513
40.	Alathur	10	255	3489	209	585
41.	Palghat	16	150	3510	533	346
42.	Ottappalam	18	978	2021	195	1299
43.	Mannarghat	18	315	2461	272	509
	PALGHAT DISTRICT	71	1943	2547	123	3252
44.	Perinthalmanna	18	555	1832	243	668
45.	Ponnani	15	2873	3677	484	6941
46.	Tirur	18	1562	3244	401	3329
47.	Ernad	15	471	1929	633	597
	MALAPPURAM DISTRICT	66	5461	3215	286	11535
48.	Kozhikode	17	593	2412	419	948
49.	Quilandy	16	290	2136	336	407
50.	Badagara	18	168	3381	320	373
51.	South Wynad	18	2769	1789	152	3255
	KOZHIKODE DISTRICT	69	3825	1983	131	4983
52.	North Wynad	18	979	2243	300	1443
53.	Tellicherry	18	311	1618	139	331
54.	Cannanore	13	20	2005	306	26
55.	Taliparamba	14	36	1402	318	33
56.	Hosdurg	17	512	2394	253	805
57.	Kasargode	11	2084	2370	451	3245
	CANNANORE DISTRICT	91	3942	2271	252	5883
	STATE	751	101703	2936	85	196200

No.	Year	Value	Quantity	Description
1	1871	100	100	...
2	1872	150	150	...
3	1873	200	200	...
4	1874	250	250	...
5	1875	300	300	...
6	1876	350	350	...
7	1877	400	400	...
8	1878	450	450	...
9	1879	500	500	...
10	1880	550	550	...
11	1881	600	600	...
12	1882	650	650	...
13	1883	700	700	...
14	1884	750	750	...
15	1885	800	800	...
16	1886	850	850	...
17	1887	900	900	...
18	1888	950	950	...
19	1889	1000	1000	...
20	1890	1050	1050	...
21	1891	1100	1100	...
22	1892	1150	1150	...
23	1893	1200	1200	...
24	1894	1250	1250	...
25	1895	1300	1300	...
26	1896	1350	1350	...
27	1897	1400	1400	...
28	1898	1450	1450	...
29	1899	1500	1500	...
30	1900	1550	1550	...

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