



GOVERNMENT OF KERALA

**REPORT ON TIMELY REPORTING
SURVEY ON AGRICULTURAL
STATISTICS IN KERALA
1984-85**

**DEPARTMENT OF ECONOMICS &
STATISTICS, KERALA
TRIVANDRUM**

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**DEPARTMENT OF ECONOMICS AND STATISTICS
KERALA, TRIVANDRUM**

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PREFACE

This is the tenth report in the series on the Sample Survey conducted in the State during the agricultural year 1984-85 under the scheme "Establishment of an Agency for Reporting Agricultural Statistics". The scheme envisages the complete enumeration of 20 per cent selected villages in the State in each year thus covering the entire area of the State within a period of 5 years. The first cycle of the complete enumeration of all villages was over in 1980-81 and the second cycle started from 1981-82 onwards. The present report relates to the 4th year of the second cycle of the survey conducted during the agricultural year 1984-85.

This report has been prepared in the Agricultural Statistics division of the Department. I hope that the report will provide comprehensive data for research and development purposes of the agricultural sector of the State. Suggestions for the improvement of the report are welcome.

Trivandrum,
May 1987.

K. BALAKRISHNAN NAIR,
Director of Economics and Statistics.

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REPORT ON THE TIMELY REPORTING SURVEY ON AGRICULTURAL STATISTICS IN KERALA 1984-85

1. THE REPORT

1.1. Introduction

This report deals with the results of the sample survey conducted under the scheme for the Establishment of an Agency for reporting Agricultural Statistics in the State for the agricultural year 1984-85.

The Union Ministry of Agriculture has sponsored a comprehensive scheme for Reporting Agricultural Statistics in the non-reporting States of Kerala, Orissa and West Bengal for improving the quality and coverage of agricultural statistics in these States and make them available on a time bound basis known as EARAS. (Establishment of an Agency for Reporting Agricultural Statistics) In Kerala the scheme was started in 1975-76 and the enumeration of all villages was completed in 1980-81 after a period of six years. In order to collect the agricultural statistics on a continuing basis, the "High Level Co-ordination Committee" for Agricultural Statistics suggested in May 1981 to continue the scheme during the Sixth Plan period also. Accepting this suggestion the Central/State Governments ordered that the scheme be continued beyond 1980-81 and completed within a period of five years covering twenty per cent of sample villages each year. The results based on the fourth year of the second cycle of survey are dealt within this report.

1.2. Object of the scheme

The main object of the Scheme EARAS is to collect data for estimating the various indicators on agricultural statistics like area and yield of various crops for each agricultural year. The scheme further aims at enumerating all the revenue villages in the State covering 20% of them each year.

1.3. Design of the survey

There were 61 taluks in the State during 1984-85 and each taluk was taken as a stratum for the survey. Within each taluk, revenue village which is the smallest well defined unit of revenue administration is the unit of sampling. Out of a total of 1331 revenue villages 263 villages were selected in 1984-85 for the survey by random sampling method.

1.4. Scheme of work

For the even distribution of the work load among the field workers, revenue villages selected for the survey were sub-divided into a number of Investigator units on the basis of the number of Investigators available, area under wet and dry lands, the terrain of the locality and the number of crop cutting experiments to be conducted in each of the selected villages. The Investigator units were as far as possible equal in extent with non-overlapping boundaries and wherever clear demarcated natural or artificial boundaries were not available the units were formed on the basis of survey numbers.

The area enumeration and crop cutting experiments in each unit were done by the Investigators of the Department. Area enumeration in the Travancore-Cochin region of the State was conducted on the basis of the sub-divisions marked on the litho maps of the villages and in the Malabar region on the basis of the sub-divisions marked in the field measurement book.

The preliminary work relating to the survey started with the preparation of a list of survey sub-division numbers classified as wet or dry according to the basic tax register available in the village offices. The details required for area enumeration were collected by the Investigators following the above sub-divisions. For the Travancore-Cochin area, the litho maps give only litho sub-divisions which contain one or more sub-divisions according to the basic tax register. In such cases, details were collected only according to the litho sub-divisions.

The Investigators visited the wet lands three times during an agricultural year corresponding to three seasons of Autumn, Winter and Summer to collect data on seasonal and annual crops. During the last visit data on land use, irrigation and perennial crops were collected. The dry land plots were programmed to visit twice corresponding to the khariff and rabi seasons; the first visit for collecting data on seasonal and annual crops and the second for collecting data on perennial crops.

Crop cutting experiments to estimate yield were confined to the villages selected for EARAS so that the Investigators posted in these villages could be utilised for this item of work also. During the year under review crop cutting experiments on the following crops were conducted.

1. Paddy—Autumn, Winter & Summer
2. Tapioca
3. Coconut
4. Arecanut
5. Cashew

6. Pepper
7. Cocoa
8. Ginger
9. Sesamum
10. Sweet Potato

The crop cutting experiments on the above crops were planned in all the taluks where the crops covered substantial area. But where a particular crop did not cover a substantial area, experiments were not planned for that crop. The number of experiments to be conducted in each taluk for each crop was decided at the headquarters and the number of experiments in each Investigator unit was decided by the Deputy Director of the district in consultation with the other district level officers and Statistical Inspectors. The maximum number of experiments in each taluk was fixed as 30 for paddy during each season and 30 for tapioca during a year, subject to a minimum of two experiments in a village. Table 2.1 gives the number of taluks in each district and the number of experiments planned for each crop and table 2.2 the number of experiments planned in each district for each crop and the number of experiments analysed. Table 2.3 gives the number of experiments missed district-wise and reason thereof. Table 2.4 gives the details of the number of experiments conducted by each Investigator.

The Additional District Officer (TRS) and the Superintendent of National Sample Survey Organisation undertook sample check on area enumeration and crop cutting experiments according to a pre-determined programme. Details of sample check are furnished in table 2.5.

1.5. Staff position

The responsibility for conducting the field work on area enumeration, crop cutting experiments, analysis of data and preparation of report is vested with the Department of Economics and Statistics. The staff sanctioned for the EARAS by the Central Government and those sanctioned under the earlier Land Utilization Survey attended this work during the period under report. The details of staff position at headquarters as well as in the field are given below. The scheme is financed jointly by the Central/State Government on a matching basis.

STAFF PATTERN OF THE SCHEME

Sl. No.	Designation	Staff sanctioned under		Total
		L.U.S.	E.A.R.A.S.	
A. Headquarters				
1.	Joint Director	..	1	1
2.	Assistant Director	1	3	4
3.	Research Officer	3	—	3
4.	Research Assistant	4	—	4
5.	Compilers	2	6	8
B. Field Staff				
1.	Deputy Director	—	3	3
2.	Additional District officer	—	11	11
3.	Research Assistant	—	5	5
4.	Statistical Inspector	51	74	125
5.	Compilers	9	2	11
6.	Investigators	159	721	880

1.6. Supervision

(a) *Departmental Officers*:—The statistical Inspectors in charge of the Taluks were responsible for the Taluk level supervision and the timely completion of field work. Additional Statistical Inspectors were also posted in certain Taluks where work load was heavy. The District level supervision of field work was done by Additional District Officer, District Officer and the Deputy Director in charge of the District. At the State level the Joint Director in charge of the survey, the Additional Director and the Director supervised the work.

(b) *Supervision by the Department of Agriculture*:—As per the scheme of the survey 1% of the crop cutting experiments are to be supervised by the Department of Agriculture. The Department was supplied with selection particulars of survey viz. the list of villages, list of plots selected for the crop cutting experiments for their association.

(c) *Supervision under the scheme for the improvement of crop statistics*:—Supervision work on area enumeration and crop cutting survey under the scheme ICS was conducted by this Department and the National Sample Survey Organisation on 50 : 50 basis.

1.7. Training

Before the commencement of field work an one day training was organised for the District level officers. The Taluk level officers and Investigators were given training for 2 to 3 days in each District by the District level officers. The officers from the NSSO also participated in these training programmes.

1.8. Period of the Survey

The reference period of the survey was the agricultural year 1984-85 (July 1984 to June 1985)

1.9. Time schedule of various items of work

<i>Item of work</i>	<i>Date of Commencement</i>	<i>Date of Completion</i>
A. AREA ENUMERATION:		
(1) Wet land		
(a) Autumn season	August 1984	October 1984
(b) Winter season	November 1984	February 1985
(c) Summer season	March 1985	April 1985
(2) Dry land 1/11 visit	—	June 1985
B. CROP CUTTING		
1. Paddy:—		
(a) Autumn season	—	November 1984
(b) Winter season	—	February 1985
(c) Summer season	—	June 1985
2.		
(a) Tapioca	—	June 1985
(b) Coconut	—	June 1985
(c) Arecanut	—	June 1985
(d) Cashew	—	June 1985
(e) Pepper	—	June 1985
(f) Cocoa	—	June 1985
(g) Ginger	—	June 1985
(h) Sesamum	—	June 1985
(i) Sweet Potato	—	June 1985
C. SAMPLE CHECK IN AREA AND YIELD ESTIMATE ON SURVEYS		
(i) Area check-wet land-Autumn	—	15-10-1984
Area check-wet land Winter	—	15- 1-1985
Area check-wet land-Summer	—	30- 4-1985
(ii) Area check-dry land	—	June 1985
(iii) Supervision of crop cutting experiments on paddy-Autumn	—	October 1984
Supervision of crop cutting experiments on paddy-Winter	—	February 1985
Supervision of crop cutting experiments on paddy-Summer	—	June 1985
(iv) Supervision of crop cutting experiment on tapioca	—	June 1985

1. 10. Schedules and Instructions

Standard schedules and instructions were supplied to the field staff for the smooth running of the survey during the year 1984-85.

1. 11. Difficulties experienced during the survey

I. AREA ENUMERATION

(a) *Wet land*:—The nature and intensity of cropping, peculiar to Kerala causes many problems in area enumeration. Paddy is the main crop grown on wet lands and 2 to 3 crops are raised on these lands according to the availability of water. Area enumeration in wet land does not create much difficulty as in dry land. However a few problems which merit attention are enumerated below.

(1) The Investigator usually visit, a field for area enumeration once in a season. During the early period of the season it may happen that the crop may not have been raised. But if the field is sown usually and harvested during the previous season he has to enumerate the area as sown for the current season also. But on later visits he may find that due to unforeseen circumstances sowing has been delayed resulting in that area lying fallow or a shift of the area under the crop to the next season.

(2) The identification of the converted wet land into dry land takes much time of the primary worker in cases where continuous survey numbers belonged to one cultivator and lying in one stretch without any markings like survey stones.

(3) Stretches of low lying wet lands where paddy is the only crop grown, often get inundated by floods or breaches of lands. The area enumeration has to be repeated to ensure whether the crop sown immediately preceding the floods or breaches of bunds have survived and if not whether the cultivators may sow a second time which naturally will be delayed thus extending the harvest and the crop season to the next season.

(4) In water logged areas where conversion of wet land to dry land has taken place in isolated pockets the identification and measurement of the area to record the extend of crops grown is a time consuming process especially when these patches are not easily accessible.

(b) *Dry lands*:—(1) Multiplicity of crops grown in the dry land makes area enumeration very difficult.

(2) In the Travancore-Cochin portion of the State, area under crops, land utilization etc. are recorded following the litho survey sub-division which is the identification unit. The old survey maps available are often damaged and in certain cases they are not available at all. Since the last survey and settlement, arbitrary changes of boundaries of many survey sub-divisions have been taken place making identification difficult. After identification if it is felt that the area under a unit is different from that recorded physical measurement has to be taken to record the change. In the Malabar region Village Maps are only available. The primary worker has therefore to go by the field measurement book and for that he has to make frequent visits to the village office. This is time consuming.

(3) It is found that large inaccessible areas with extensive cultivation are put under minor circuits in the litho maps which contain large survey sub-divisions. Consequently identification of various survey sub-divisions within a minor circuit is difficult without the aid of maps. In such cases enumeration has to be done holding wise. The tallying of area according to records and units of enumeration is often found trying.

(4) The plots have a multiplicity of crops both seasonal and perennial in most cases. The allocation of area if left to the discretion of primary workers may lead to serious errors, so the old method of annawari allocation is not followed. Instead the number of palms standards under perennial crops are actually counted. This takes up too much time of the primary worker.

II. CROP CUTTING EXPERIMENTS

1. There is no fixity of dates proposed by the cultivator for harvesting with the result that the Investigator has to make repeated visits to conduct the experiment. Simultaneous harvests in two fields at different places make him difficult to attend to both the cuts.

2. In water logged areas fixing of pegs to demarcate the cut is difficult.

3. The land reforms act in Kerala vested with the Kudikidappukar, the right of ownership extending up to 10 cents. Since most of them are agricultural labourers, they leave their houses very early for work. Consequently harvesting of experimental trees falling in such lands entails repeated visits. Also the harvesting of trees in such plots are done according to their necessity without any fixed plans making it difficult to ascertain the exact number of the nuts plucked, the number plucked as tender, barren and ripe etc.,

III. OTHER DIFFICULTIES

The work load of the primary worker is very heavy. He has to cover about 2000 acres. The wet land area has to be enumerated three times and dry land area two times. Besides he has to attend to

crop cutting work on paddy, coconut, arecanut, tapioca, cashew, pepper, cocoa, ginger, sesamum and sweet potato if all the crops are cultivated in the unit in sizable areas. It was found very difficult to cover completely the above items of work in any year. Even though, two visits proposed on dry lands the first visit to enumerate seasonal crops was uniformly the casualty in all the rounds including the one under report due to heavy work load coupled with shortage of primary workers in position due to administrative reasons. However the shortage of primary workers in position was kept at a minimum. It is feared that the heavy work load may adversely affect the quality of the data collected. Over and above the absence of printing facilities exclusively for the department have always caused inconveniences in the smooth conduct of the survey as the Government presses were overburdened with many items of urgent Government work.

1.12. Estimation procedure

The following estimates were prepared from the data collected in area enumeration:—

- (1) Area under different utilisation
- (2) Area under various crops
- (3) Area irrigated according to source
- (4) Area irrigated according to crops.

The estimation procedure is detailed below:

(a) *Land utilisation and irrigation—Notations used:—*

N = No. of villages in the stratum (taluk)

n = No. of villages selected for area enumeration

A = Area of stratum

a = Area of selected villages

a_j = Area of jth selected village

y_{ij} = Area under ith utilisation in the jth selected village

y_i = Estimate of the ith utilization

V(y_i) = Estimate of the variance of y_i
then y_i is given by:

$$y_i = \frac{\sum_{j=1}^n y_{ij}}{\sum_{j=1}^n a_j} \times A = \frac{A}{a} \sum_{j=1}^n y_{ij}$$

$$V(y_i) = \frac{N(N-n)}{n(n-1)} \sum_{j=1}^n (y_{ij} - R_{iaj})^2$$

$$\text{Where } R_i = \frac{\sum_{j=1}^n y_{ij}}{\sum_{j=1}^n a_j}$$

(b) *Area under crops*:—The area under various crops are estimated using the following notations:

N = No. of villages in the stratum (taluk)

n = No. of villages selected for area enumeration

W = Wet land area of the stratum

D = Dry land area of the stratum

w_j = Wet land area of the j^{th} selected village

d_j = Dry land area of the j^{th} selected village

y_{ij} = Area under i^{th} crop in the wet land of j^{th} selected village

x_{ij} = Area under i^{th} crop in the dry land of j^{th} selected village

y_i = Estimate of area under i^{th} crop in wet land

x_i = Estimate of area under i^{th} crop in dry land

$z_i = y_i + x_i$ i.e., Total area under i^{th} crop

$$\text{then } y_i = \frac{\sum_{j=1}^n y_{ij} \times W}{\sum_{j=1}^n w_j}$$

$$x_i = \frac{\sum_{j=1}^n x_{ij} \times D}{\sum_{j=1}^n d_j}$$

$$V(z_i) = V(y_i) + V(x_i)$$

$$= \frac{N(N-n)}{n(n-1)} \left\{ \sum_{j=1}^n (y_{ij} - R_{i1} w_j)^2 + \sum_{j=1}^n (x_{ij} - R_{i2} d_j)^2 \right\}$$

$$\text{Where } R_{i1} = \frac{\sum_{j=1}^n y_{ij}}{\sum_{j=1}^n w_j} \text{ and}$$

$$R_{i2} = \frac{\sum_{j=1}^n x_{ij}}{\sum_{j=1}^n d_j}$$

(c) *Average yield of crops*:—The estimate of average yield is taken as the average yield obtained from all experiments.

1.13. Analysis of survey results

The results of the survey are furnished in tables 21, 22 and 23 of appendix tables. The salient features of the result are discussed below:

(1) *Land utilization.*—The estimates of area under various utilizations for the year 1984-85 with comparative data for the years 1975-76 and for 1980-81 to 1983-84 are furnished in Table 1.13.1. The Table shows that the pattern of utilization has undergone very little change over the years. Land put to non-agricultural uses and as culturable waste show upward changes while most others remained more or less stable, during 1984-85 when compared to that of the previous year. It has undoubtedly proved that land put to non-agricultural uses has been increasing year by year from 6.67 to 7.20 per cent in 1984-85. Similarly an opposite trend is noticed in the case of land under miscellaneous tree crops. There is a progressive reduction from 2.17 per cent in 1975-76 to 1.31 per cent in 1984-85. The net area sown during the year was 56.22% of the geographical area of the State while reserved forests covered 27.81% and land put to non-agricultural uses covered 7.2%.

(2) *Area under principal crops.*—The area under principal crops for the year 1984-85 with comparative figures for the years 1975-76 and from 1980-81 to 1983-84 are furnished in Table 1.13.2. The area under paddy, the staple food of the people of Kerala shows a consistently decreasing trend over the years. The percentage of area under paddy to gross cropped area has come down from 30.15% in 1975-76 to 27.79% during 1980-81 and to 25.41% in 1984-85. The reason attributed for this phenomenon is the continuing conversion of paddy fields for the cultivation of perennial crops and for non-agricultural purposes owing to the uneconomic rice prices in the market. The area under tapioca also (a cereal substitute) moves in the same direction as that of paddy. Intrusion of rubber into places traditionally occupied by tapioca, severe ro tent attack and low price level are stated to be reasons for the decline in area under tapioca. If it is properly exploited for industrial purposes like cattle feed, starch, etc., this trend can be reversed in future against its present role as a cereal substitute. Rubber and cashew are the only crops which show substantial increase in area over the years. This shows that the cropping pattern of Kerala is gradually shifting in favour of perennial cash crops over the years. This is because perennial crops are less labour intensive and fetch attractive returns. These crops are less susceptible to variation in weather conditions unlike seasonal crops. Banana is another crop thriving at the expense of paddy owing to good returns.

(3) *Production of Important Crops.*—The production of important crops viz., paddy (season wise), coconut, arecanut, cashew, pepper, tapioca, rubber, banana plantain and cardamom for the year 1984-85 together with comparative details for the years 1975-76 and from 1980-81 to 1983-84 are furnished in Table 1.13.3. The estimates of production of paddy, coconut, tapioca, pepper, arecanut, cashewnut are framed on the basis of the yield estimation surveys conducted in respect of these crops. In the case of other crops conventional estimate

of average yield from adhoc surveys were used to arrive at the production estimates. The number of experiments planned for each crop for which yield estimation surveys have been conducted and the number of experiments analysed are furnished in Table 2. The number of experiments missed and the reason thereof in respect of paddy and tapioca are given in Table 3. The percentage achievement of targetted crop cutting experiments was cent per cent in respect of arecanut, cashew and pepper. It was above 99% in respect of tapioca and coconut. This percentage was 94.47 in respect of paddy (Autumn crop), 95.75 for winter 95.93 in respect of summer, 94 for cocoa, 91.69 for ginger, 86.92 in respect of Sesamum and 68.82 in respect of sweet potato.

The mean yield estimated for various crops for which yield estimation surveys have been conducted during the year 1984-85 are furnished below.

MEAN YIELD OF CROPS

<i>Name of crop</i>	<i>Mean yield per hectare</i>
1 Paddy (1) Autum 1984	2623 kg.
(2) Winter 1985	2514 kg.
(3) Summer 1985	2993 kg.
2 Tapioca	17.04 tonnes
3 Coconut (Nos.)	5022
4 Arecanut (Nos.)	163250
5 Cashew	528 kg.
6 Pepper	164 kg. (dry)
7 Cocoa	254 kg. (dry)

1.14. Area under Irrigation

The area under irrigation by various sources in the state are estimated at 2.71 lakh hectares during the year 1984-85. The estimates show that the area irrigated through the sources provided by Government have decreased during the year under report while the area irrigated through other sources showed substantial progress. The overall increase in area under irrigation during the year 1984-85 shows an increase of 1.9% over the previous year. Government canals catered to about 35% of the net irrigated area while private tanks and wells served about 25% of area and other sources served about 25.3% of the total area irrigated.

The gross cropped area during the year 1984-85 was estimated at 4.23 lakh hectares as against 3.96% lakh hectares during the previous year. Among the crops irrigated, paddy tops the list with 73.9% of the gross irrigated area and coconut comes second with 17% of the gross irrigated area. The gross irrigated area shows an increase of about 7% during 1984-85 over that of the previous year. The details of source wise and crop wise area irrigated are furnished in Table 16 and 17 of the Appendix Tables.

TABLE 1.13.1
Land use classification 1975-76, 1980-81 to 1984-85

Classification	Area in Hectares ('00)						
	(1)	(2)	(3)	(4)	(5)	(6)	(7)
	1975-76	1980-81	1981-82	1982-83	1983-84	1984-85	
Total geographical area	38855	38855	38855	38855	38855	38855	38855
Forest	10815	10815	10815	10815	10815	10815	10815
Land under non-Agricultural uses	2592	2698	2704	2759	2777	2797	2797
Barren and uncultivable land	785	852	856	862	866	858	858
Permanent pastures and grazing land	199	54	54	53	52	42	42
Land under miscellaneous tree crops	842	639	552	547	547	510	510
Cultivable waste land	1134	1290	1302	1302	1289	1301	1301
Fallow other than current fallow	230	269	268	274	275	272	272
Current fallow	356	436	545	445	429	417	417
Net area sown	21892	21796	21699	21798	21804	21844	21844

TABLE 1.13.1—(Contd.)

Classification	Percentage					
	1975-76	1980-81	1981-82	1982-83	1983-84	1984-85
	(8)	(9)	(10)	(11)	(12)	(13)
Total geographical area	100.00	100.00	100.00	100.00	100.00	100.00
Forest	27.83	27.83	27.83	27.83	27.83	27.83
Land under non-agricultural uses	6.67	6.94	6.96	7.10	7.14	7.20
Barren and uncultivable land	2.02	2.21	2.20	2.22	2.23	2.21
Permanent pastures and grazing land	0.51	0.14	0.14	0.14	0.14	0.13
Land under miscellaneous tree crops	2.17	1.64	1.42	1.41	1.41	1.31
Cultivable waste land	2.92	3.32	3.35	3.35	3.32	3.35
Fallow other than current fallow	0.59	0.69	0.69	0.71	0.71	0.70
Current fallow	0.92	1.12	1.40	1.15	1.10	1.07
Net area sown	56.34	56.10	55.85	56.10	56.12	56.22

TABLE 1.13.2

Area under important crops and their percentages to total cropped area

Crop	Area in hectares					
	1975-76		1980-81		1981-82	
	Area	Percentage	Area	Percentage	Area	Percentage
Paddy—Autumn	375043	12.58	349243	12.11	347098	11.95
Paddy—Winter	396392	13.30	354132	12.28	356073	12.26
Paddy—Summer	104587	3.51	98324	3.41	103700	3.57
Total	876022	29.39	801699	27.79	806871	27.77
Coconut	692945	23.24	651370	22.58	666618	22.95
Arecanut	76618	2.57	61242	2.12	61251	2.11
Cashew	109057	3.66	141277	4.90	139960	4.82
Pepper	108251	3.63	108075	3.75	108242	3.73
Tapioca	326865	10.96	244990	8.49	248069	8.54
Rubber	206686	6.93	237769	8.24	237769	8.18
Banana and plantain	52280	1.75	49262	1.71	49989	1.72

TABLE 1.13.2—(Contd.)

Crop	Area in hectares					
	1982-83		1983-84		1984-85	
	Area	Percentage	Area	Percentage	Area	Percentage
Paddy—Autumn	342669	11.97	327783	11.45	318611	11.08
Paddy—Winter	352273	12.31	324560	11.34	326812	11.37
Paddy—Summer	89543	3.13	87743	3.07	84956	2.96
Total	778490	27.20	740086	25.86	730379	25.41
Coconut	674378	23.56	682281	23.84	687483	23.91
Areca nut	60816	2.12	59604	2.08	56778	1.98
Cashew	141307	4.94	142339	4.97	136863	4.76
Pepper	107467	3.75	106143	3.71	105835	3.68
Tapioca	227617	7.95	233010	8.14	216742	7.54
Rubber	256283	8.95	271200	9.48	311976	10.85
Banana and plantain	48038	1.68	49593	1.73	51417	1.73

TABLE 1.13.3
Production of important crops 1975-76, 1980-81 to 1984-85

Crop	Production of important crops ('00 tonnes)						
	(1)	(2)	(3)	(4)	(5)	(6)	(7)
	1975-76	1980-81	1981-82	1982-83	1983-84	1984-85	
Rice—Autumn	5523	5537	5569	5788	5204	5490	
Rice—Winter	5980	5485	5892	5657	5206	5399	
Rice—Summer	1809	1697	1933	1617	1669	1670	
Total	13312	12719	13394	13062	12079	12559	
Coconut—Million nuts	3439	3032	3006	3184	2602	3453	
Areca nut—Million nuts	11387	10829	10702	11027	8318	9269	
Cashew	1224	828	789	755	774	723	
Pepper	246	289	275	245	245	174	
Tapioca	53902	40889	37451	38487	39240	36943	
Rubber	1288	1366	1393	1527	1622	1889	
Banana and plantain	2510	3059	3275	2894	3166	3312	
Cardamom	21	33	28	19	20	29	

TABLE 1.13.3—(Contd.)

Crop	Percentage of increase or decrease to previous year				
	1980-81	1981-82	1982-83	1983-84	1984-85
	(8)	(9)	(10)	(11)	(12)
Rice—Autumn	+ 0.25	+ 0.58	+ 3.93	-10.09	+ 5.50
Rice—Winter	- 8.28	+ 7.42	- 3.99	- 7.97	+ 3.71
Rice—Summer	+ 6.19	+13.91	-16.35	+ 3.22	+ 0.06
	- 4.45	+ 5.31	- 2.48	- 7.53	+ 3.97
	-11.83	- 0.86	+ 5.92	-18.28	+32.71
Coconut	- 4.90	- 1.17	+ 5.04	-24.57	+11.43
Arcanaut	-32.35	- 4.71	- 4.31	+ 2.52	- 6.59
Cashew	+17.48	- 4.84	-10.91	0.00	-28.98
Pepper	-24.14	- 8.41	+ 2.77	+ 1.96	- 5.85
Tapioca	+ 6.06	+ 2.12	+ 9.46	+ 6.22	- 2.03
Rubber	+21.87	+ 7.06	-11.63	+ 0.40	+ 4.61
Banana and plantain	+57.14	-15.15	-32.14	+ 5.25	+45.00
Cardamom					

Total

APPENDIX TABLES
TABLE I

Distribution of taluks in each district and the number of cropwise experiments planned cropwise in 1984-85

District	Paddy				No. of taluks where experiments were planned							
	Autumn	Winter	Summer	Tapioca	Coconut	Arecanut	Cashewnut	Pepper	Cocoa	Ginger	Sesamum	Sweet Potato
Trivandrum	4	4	4	4	4	4	4	4	1	2	2	2
Quilon	5	5	4	5	5	3	3	4	1	4	2	4
Pathanamthitta	5	..	5	..	..	..	..	..	..	..	..	..
Alleppey	6	6	4	3	6	4	2	6	4	2	2	..
Kottayam	5	5	4	5	5	4	1	4	4	4	1	..
Idukki	4	4	..	4	2	1	3	3	3	2	3	..
Ernakulam	7	6	6	5	7	6	4	5	2	3	3	..
Trichur	5	5	5	4	5	4	4	4	2	2	3	..
Palghat	5	5	4	5	5	4	3	3	3	1	2	2
Malappuram	4	4	4	4	4	4	4	3	3	2	4	3
Kozhikode	3	3	3	3	3	3	3	3	2	2	1	2
Wynad	3	3	3	3	3	3	3	3	3	3	1	3
Cannanore	5	5	5	5	5	5	5	4	4	4	2	3
State	61	55	47	50	54	43	36	43	37	31	21	19

TABLE 2

Number of experiments planned in each district for each crop and number of experiments analysed in 1984-85

District	Paddy										Other crops	
	Autumn		Winter		Summer		Tapioca					
	A	B	A	B	A	B	A	B	A	B	A	B
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)
Tri andrum	120	113	120	118	48	46	110	110	110	110	110	110
Quilon	155	152	32	132	23	23	99	99	99	99	99	99
Pathanamthitta	41	41	50	49	39	38	71	71	71	71	71	71
Alleppey	154	138	154	145	116	107	56	56	56	56	56	56
Kottayam	100	97	96	89	84	82	96	96	96	96	96	96
Idukki	36	34	53	51	5	5	56	56	56	56	56	56
Ernakulam	220	213	200	199	148	148	94	94	94	94	94	94
Trichur	137	122	145	127	111	106	85	85	85	85	85	85
Palghat	160	149	160	149	68	65	..	..	..	..	..	..
Malappuram	135	128	120	112	80	74	100	100	100	100	100	100
Kozhikode	84	77	84	78	62	57	80	80	80	80	80	80
Wynad	..	..	90	90	78	76	45	45	45	45	45	45
Cannanore	175	172	154	153	142	139	130	130	130	130	130	132
State	1520	1436	1558	1492	1007	966	1102	1102	1102	1102	1102	1100

TABLE 2—(Contd.)

District	Other Crops							
	Coconut		Areca nut		Cashew		Pepper	
	A	B	A	B	A	B	A	B
(1)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)
Trivandrum	50	50	25	25	21	21	23	23
Quilon	49	49	22	22	21	21	22	22
Pathanamthitta	18	18	15	15	9	9	18	18
Alleppey	41	41	15	15	10	10	10	10
Kottayam	43	42	25	25	5	5	35	35
Idukki	20	20	10	10	5	5	65	65
Ernakulam	42	42	52	52	1	18	27	27
Trichur	46	46	50	50	21	21	23	23
Palghat	28	28	16	16	41	41	10	10
Malappuram	56	56	48	48	75	75	20	20
Kozhikode	72	72	40	40	19	19	41	41
Wynad	15	15	30	30	18	18	30	30
Cannanore	61	61	72	72	135	135	70	70
State	541	540	420	420	398	398	394	394

TABLE 2—(Contd.)

District	Other crops									
	Cocoa		Ginger		Sesamum		Sweet Potato			
	A	B	A	B	A	B	A	B	A	B
(1)	(18)	(19)	(20)	(21)	(22)	(23)	(24)	(25)	(24)	(25)
Trivandrum	5	5	10	5	..	..	10	5	10	5
Quilon	10	10	24	24	30	9	45	8	45	8
Pathanamthitta	20	20	28	27	..	..	5	5	5	5
Alleppey	40	35	13	10	30	30	..	..	..	..
Kottayam	20	20	70	70	..	..	..	..	..	..
Idukki	20	20	30	30	15	15	..	..	..	..
Ernakulam	40	40	35	31	45	44	..	..	..	..
Trichur	20	18	10	10	45	43	..	..	..	..
Palghat	30	27	5	4	30	20	25	24	25	24
Malappuram	30	23	20	20	35	35	35	30	35	30
Kozhikode	20	19	15	10	5	5	20	17	20	17
Wynad	15	15	30	26	15	15	15	15	15	15
Cannanore	30	30	35	31	10	10	15	13	15	13
State	300	282	325	298	260	226	170	117	170	117

TABLE 3

District-wise number of experiments missed in respect of paddy and tapioca by reason in 1934-85

District	Paddy												Tapioca			
	Autumn				Winter				Summer							
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
Trivandrum	7	..	..	..	2	..	..	..	..	..	..	..	..
Oulon	3	..	..	..	..	..	..	..	..	..	..	..	..
Pathanamthitta	14	..	..	..	9	..	..	..	..	..	..	..	..
Alleppey	..	2	..	3	..	7	..	..	..	..	..	..	..	..	..	..
Kottayam	2	..	..	..	2	..	..	..	..	..	..	..	..
Idukki	7	..	..	..	1	..	..	..	..	..	..	..	..
Ernakulam	15	..	..	..	18	..	..	..	..	..	..	..	..
Trichur	11	..	..	..	9	..	..	..	..	..	..	..	..
Palghat	3	..	2	..	2	..	..	..	..	..	..	..	..
Malappuram	..	4	..	7	..	6	..	6	..	..	..	..	..	..	..	2
Wynad	3	..	..	..	1	..	..	..	..	..	..	..	..
Cannanore	3	..	..	..	1	..	..	..	..	..	..	..	..
State	..	6	..	78	..	15	..	51	..	..	..	..	..	..	..	2

1 = Primary workers' absence or leave 2 = Prior harvest by cultivator

3 = Rejected at the analysis stage 4 = Other reasons

TABLE 4

Number of Investigators according to number of crop cutting experiments on paddy conducted by them during 1984-85

Number of experiments	Number of Investigators		
	Autumn	Winter	Summer
4 experiments or less	655	730	635
5 to 8 experiments	49	50	44
More than 8 experiments	..	5	..
Total	704	785	681

TABLE 5

Number of experiments inspected during the year 1984-85

Sl. No.	Season	Number of experiments analysed			No. of experiments inspected at			Percentage of experiments inspected at			
		Harvest stage	Pre-harvest stage	Post harvest stage	Harvest stage	Pre-harvest stage	Post harvest stage	Harvest stage	Pre-harvest stage	Post harvest stage	
		D.O.	S.I.	D.O.	S.I.	D.O.	S.I.				
1	Autumn	1436	38	603	6	204	..	4	44.64	14.62	0.35
2	Winter	1492	32	724	2	257	..	6	50.67	17.36	0.41
3	Summer	966	10	439	..	168	..	3	46.48	17.39	0.31
	Total	3894	80	1766	8	629	..	13	47.40	16.36	0.00

TABLE 6

District-wise area under principal crops—Paddy—1984-85

District	Area under the crops (in hectare)			Total
	Autumn	Winter	Summer	
Trivandrum	13491	13203	326	27020
Quilon	18997	18326	240	37563
Pathanamthitta	7394	6549	3495	17439
Alleppey	32756	15984	24870	73610
Kottayam	11559	14615	5816	31990
Idukki	3525	4590	360	8475
Ernakulam	36690	38422	14071	89183
Trichur	35576	49705	17257	102540
Palghat	86339	78006	1967	166312
Malappuram	32251	35861	5073	73185
Kozhikode	7439	11432	2474	21345
Wynad	4	23143	6504	29651
Cannanore	32590	16976	2500	52066
State	318611	326812	84956	730379

TABLE 7

District-wise area under principal crops—Tapioca during 1984-85

District	Area (in hectares)			Total	Standard error
	Autumn	Winter	Summer		
Trivandrum	22971	22953	6705	52629	±12.34
Quilon	14796	26563	734	42093	14.59
Pathanamthitta	1175	11849	626	13650	22.01
Alleppey	1904	7994	866	10764	9.44
Kottayam	1337	18252	495	20084	17.92
Idukki	1037	8052	84	9173	24.76
Ernakulam	2794	6824	746	10364	14.08
Trichur	1470	3887	331	5688	28.65
Palghat	6266	5673	576	12515	53.75
Malappuram	6058	8295	1388	15741	29.87
Kozhikode	1961	1467	422	3850	22.83
Wynad	1136	1424	435	2995	21.90
Cannanore	1553	14560	1083	17196	18.11
State	64458	137790	14491	216742	

TABLE 8

District-wise area under principal crops—Coconut in 1984-85

District	Number of trees 00's			Total	Area (in hectare)	Percentage of sampling error
	Bearing	Young	Total			
Trivandrum	108903	65817	174720	76969	6.4	
Quilon	72571	74244	146815	68927	4.4	
Pathanamthitta	39959	18375	58334	25926	8.4	
Alleppey	70421	37886	108307	45699	3.5	
Kottayam	83116	21432	104548	48179	10.2	
Idukki	19358	6955	26313	15036	10.8	
Ernakulam	88675	37714	126389	55678	6.8	
Trichur	89956	58022	147978	62438	4.6	
Palghat	27485	32959	60444	25504	7.3	
Malappuram	66464	79739	146203	62214	26.3	
Kozhikode	137279	81731	255010	107599	4.8	
Wynad	1618	6078	7705	3251	22.5	
Cannanore	126276	87173	213449	90063	10.3	
State	968081	608134	1576215	687483		

TABLE 9
District-wise area under principal crops—Arcanaut—1984-85

District	Number of trees ('000s)			Area under crops (in hectare)	Percentage of sampling error
	Bearing	Young	Total		
Trivandrum	62885	6887	69772	3268	6.6
Quilon	51483	15369	66852	3061	2.6
Pathanamthitta	25587	4729	30316	1334	16.8
Alleppey	30283	15684	45967	2138	6.7
Kottayam	41135	10104	51239	2328	7.0
Idukki	34856	15325	50181	2282	6.7
Ernakulam	102739	23198	125937	5727	3.1
Trichur	113942	22418	136360	6201	10.2
Palghat	40047	9688	49735	2170	..
Malappuram	142365	34508	176873	3300	11.0
Kozhikode	94252	20620	114872	5374	5.9
Wynad	14369	7663	22032	1115	..
Cannanore	190423	54778	245201	13480	5.5
State	944366	240971	1185337	56778	

TABLE 10

District-wise area under principal crops—Cashew 1984-85

District	Number of trees (in 00's)		Area in hectare	Percentage of sampling error
	Bearing	Young			Total
Trivandrum	13263	5613	6294	11.6
Quilon	16000	5663	7221	4.8
Pathanamthitta	4763	1327	2030	11.9
Alleppey	6474	4116	3530	18.4
Kottayam	2642	1543	1395	6.6
Idukki	2820	747	1189	7.9
Ernakulam	8966	2461	3809	1.1
Trichur	18357	4173	7510	13.4
Palghat	30089	8482	12857	9.7
Malappuram	48068	11482	19850	9.0
Kozhikode	9196	3395	4197	7.6
Wynad	1615	1151	922	8.6
Cannanore	164606	33571	66059	6.1
Total	326859	83730	410589	136863

TABLE 11

District-wise area under principal crops—Pepper 1984-85

District	No. of standards (in 00's)		Total area in hectare	Percentage of sampling error	
	Bearing	Young			
Trivandrum	21712	6293	28005	5001	7.5
Quilon	34509	7575	42084	7515	2.6
Pathanamthitta	20880	3065	23945	4276	9.5
Alleppey	14619	5787	20406	3644	3.7
Kottayam	55506	10361	65867	11762	9.7
Idukki	51521	20265	71786	12819	26.1
Ernakulam	25714	8955	34669	6191	6.6
Trichur	17525	3643	21168	3780	10.8
Palghat	7364	1960	9324	1665	11.0
Malappuram	18928	3858	22786	4069	25.5
Kozhikode	62869	11913	74782	13354	2.7
Wynad	39566	6678	46244	4258	19.4
Cannanore	112167	19438	131605	23501	6.4
State	482880	109791	592671	105835	

TABLE 12
 District-wise area under plantation crops during 1981-85

District	Area in hectare			
	Rubber	Tea	Coffee	Cardamom
Trivandrum	14891	1071	50	164
Quilon	30208	681	207	105
Pathanamthitta	22098	734	180	45
Alleppey	5580	..	66	..
Kottayam	78739	2009	990	..
Idukki	28794,	23804	4875	49352
Ernakulam	34319	2	274	..
Trichur	11019	447	33	..
Palghat	13013	665	2291	3270
Malappuram	18711	174	..	188
Kozhikode	20470	..	..	412
Wynad	5023	5389	55093	4254
Cannanore	29111	..	..	779
State	311976	34976	64009	58778

District-wise area under annual crops 1984-85

Area in hectare

District	Banana	Plantain	Sugarcane	Pineapple	Betel leaves
Trivandrum	827	5406	21	337	157
Quilon	1445	2705	194	469	107
Pathanamthitta	750	1864	1328	207	67
Alleppey	699	1489	1273	208	60
Kottayam	1597	3231	262	669	75
Idukki	181	2473	1954	301	5
Ernakulam	2145	3333	50	589	83
Trichur	1577	3273	5	344	78
Palghat	1778	2404	2690	202	8
Malappuram	2381	2214	14	200	337
Kozhikode	1030	2368	3	249	41
Wynad	523	1137	14	123	3
Cannanore	1190	3397	31	898	25
State	1623	35294	7839	4836	1046

TABLE 14

District-wise area under seasonal crops during 1984-85

District	Area in hectare								
	Pulses			Total	Jawar	Ragi	Other millets	Chillies	Ginger
	Kharif	Rabi	(3)						
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	
Trivandrum	196	2638	2834	19	10	192	..	..	192
Quilon	932	876	1808	..	6	932	..	..	932
Pathanamthitta	43	353	396	..	2	509	..	..	509
Alleppey	58	572	630	..	5	204	..	..	204
Kottayam	210	2001	2211	..	4	2533	..	1	2533
Idukki	132	1037	1169	56	262	1209	..	..	1209
Ernakulam	512	883	1395	5	2	2282	..	..	2282
Trichur	1712	728	2440	9	29	96	3	3	96
Palghat	2713	5949	8662	1682	817	410	187	187	410
Malappuram	505	733	1238	11	10	357	84	84	357
Kozhikode	230	965	1195	..	17	1723	75	75	1723
Wynad	3	274	277	5	17	2757	5	5	2757
Cannanore	34	4426	4460	54	10	1333	646	646	1333
State	7280	21435	28715	1822	1200	14537	1001	1001	14537

TABLE 14—(Contd.)

District	Area in hectare									
	(1)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)
		Turmeric	Sweet potato	Tuber	Other vegetables	Sesamum	Groundnut	Lemongrass	Cotton	Tobacco
Trivandrum	35	122	1972	627	19	15	46	..	..	..
Quilon	76	38	3963	263	2127	..	26	..	..	..
Pathanamthitta	18	2	3184	344	201	..	21	..	..	..
Alleppey	21	51	5224	844	4567	..	4	..	..	..
Kottayam	558	23	2799	1122	66	..	56	..	..	..
Idukki	173	129	1229	947	245	..	2316	..	..	..
Ernakulam	626	46	2415	2512	2131	..	538	..	..	..
Trichur	149	148	2080	1095	1278	..	48	..	..	..
Palghat	290	1712	1859	2408	1121	11744	105	6326	..	..
Malappuram	92	1503	2003	1846	2239	5	96	..	..	..
Kozhikode	287	66	1946	281	76	..	782	..	..	..
Wynad	193	18	823	301	115	..	2313	..	..	..
Cannanore	367	777	974	1590	263	60	1411	..	..	533
State	2885	4635	30471	14180	14448	11824	7762	6326	533	533

TABLE 15
District-wise area under perennial crops during 1984-85

District	Area in hectare								
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Trivandrum	7123	7293	1726	660	2879	564	133	85	
Quilon	4808	4758	564	481	1080	30	68	89	
Pathanamthitta	2263	1792	206	311	352	34	51	106	
Alleppey	2313	4057	267	632	607	14	16	101	
Kottayam	4250	3634	432	721	1232	443	368	493	
Idukki	2214	1663	167	626	312	204	81	160	
Ernakulam	3942	4595	741	1019	1037	363	113	1174	
Trichur	3644	4550	1460	1442	688	900	31	229	
Palghat	3810	5752	2999	528	744	7120	2	63	
Malappuram	5180	6190	1176	1244	904	1271	8	98	
Kozhikode	6654	6844	610	1020	2131	348	7	48	
Wynad	5120	2475	110	105	180	230	7	6	
Cannanore	6731	6381	543	762	635	185	7	268	
State	58052	59984	11101	9551	12781	11706	892	2920	

TABLE 15—(Concl.)

Area in hectare

District	Area in hectare							
	(1)	(10)	(11)	(12)	(13)	(14)	(15)	(16)
		Cinnamon	Cocoa	Other fruit crops	Other oilseed	Fodder grass	Green manure crops	Other non-food crops
Trivandrum	9	876	1074	211	251	334	1855	
Quilon	24	970	395	56	273	610	1720	
Pathanamthitta	8	940	351	15	167	449	897	
Alleppey	34	1991	532	92	132	164	751	
Kottayam	52	5463	722	113	346	231	1928	
Idukki	35	1936	1023	66	318	188	2054	
Ernakulam	43	1970	625	183	103	206	6902	
Trichur	35	730	500	178	77	398	2485	
Palghat	157	229	2331	539	37	1046	11997	
Malappuram	13	460	569	53	23	2284	5241	
Kozhikode	61	934	885	68	35	826	2913	
Wynad	24	347	1001	50	79	381	4955	
Cananore	188	1014	1752	169	148	1482	9527	
State	683	17860	11760	1793	1989	8599	53225	

TABLE 16

Source-wise area under Irrigation during 1984-85

District	Area in hectare						Total
	Government canal	Private canal	Government tanks and wells	Private tanks and wells	Minor and lift irrigation	Other sources	
Trivandrum	5388	11	1034	856	1216	1554	10059
Quilon	297	62	93	521	273	2683	3929
Pathanamthitta	39	..	46	135	584	1875	2679
Alleppey	2178	3	76	13607	3598	2997	22459
Kottayam	977	222	356	719	539	3436	6219
Idukki	574	27	70	98	429	1966	3164
Ernakulam	16658	86	877	7345	10471	8863	44300
Trichur	18354	516	1089	13943	7066	9364	50332
Palghat	45771	285	247	12292	1708	5745	66048
Malappuram	659	512	103	7942	5300	10499	25015
Kozhikode	3268	112	87	747	978	1200	6392
Wynad	58	533	19	106	39	7331	8086
Cannanore	118	1440	200	8922	457	10879	22016
State	94339	3809	4297	67233	32628	68392	270698

TABLE 17
Crop-wise area under irrigation during 1984-85 (in hectares)

District	(1)	(2)	(3)	(4)	(5)	(6)	(7)
		Paddy	Vegetable	Tubers	Coconut	Areca nut	Cloves nutmeg and Cinnamon
Trivandrum		7916	28	166	863	4	11
Quilon		4233	13	232	125	1	6
Pathanamthitta		6640	...	18	11	...	...
Alleppey		4583	296	741	16352	45	49
Kottayam		10840	...	165	13	...	97
Idukki		2983	6	9	...	1	12
Ernakulam		68870	11	62	7556	548	355
Trichur		58039	20	257	28105	2246	68
Palghat		84585	10	469	3228	1170	11
Malappuram		29905	194	963	3230	2386	...
Kozhikode		3734	25	143	137	32	2
Wynad		14999	2	65	34	9	...
Cannanore		15533	50	1229	10453	6758	38
State		312860	655	4519	70107	13200	649

TABLE 17—(Concl'd.)

<i>District</i>	<i>Other condiments and spices</i>	<i>Banana</i>	<i>Betel leaves</i>	<i>Sugarcane</i>	<i>Others</i>	<i>Total</i>
(1)	(8)	(9)	(10)	(11)	(12)	(13)
Trivandrum	3	342	97	3	921	10354
Quilon	2	38	97	3	488	5238
Pathanamthitta	..	12	5	3	..	6689
Alleppey	64	179	23	80	646	23058
Kottayam	9	76	21	..	1146	12367
Idukki	4	3	..	104	42	3164
Ernakulam	36	579	11	..	1822	79850
Trichur	173	698	19	..	1048	90673
Palghat	279	619	9	850	1978	93208
Malappuram	81	1183	224	1	816	38383
Kozhikode	5	899	19	..	2160	7156
Wynad	..	22	..	..	69	15200
Cannanore	346	1068	18	22	1698	37213
State	1002	5718	543	1066	12834	423153

TABLE 18

Irrigated and unirrigated area under high yielding and other varieties (Autumn paddy) (in hectares)

District	High yielding			Other varieties			Total	
	Irrigated	Unirrigated	Total	Irrigated	Unirrigated	Total	Irrigated	Unirrigated
Trivandrum	140	2912	3052	3044	7395	10439	3184	10307
Quilon	..	8914	8914	..	10083	10083	..	18997
Pathanamthitta	..	5579	5579	1113	702	1815	1113	6281
Alleppey	1	18841	18842	..	13914	12914	1	32755
Kottayam	104	10097	10201	4	1354	1358	108	11451
Idukki	199	760	959	289	2277	2566	488	3037
Ernakulam	14050	5190	19240	4486	12964	17450	18536	18154
Trichur	337	2803	3140	825	31611	32436	1162	34414
Palghat	10477	19541	30018	7664	48657	59321	18141	68198
Malappuram	33	3084	3117	2951	26183	29134	2984	29267
Kozhikode	..	1734	1734	1	5704	5705	1	7438
Wynad	..	..	..	..	4	4	..	4
Cannanore	39	7565	7604	234	24752	24986	273	32317
State	25380	87020	112400	20611	185600	206211	459914	272620

TABLE 19

Irrigated and un irrigated area under high yielding and other varieties (winter paddy)—1984-85
(in hectare)

District	High Yielding		Other Varieties		Total	
	Irrigated	Unirrigated	Irrigated	Unirrigated	Irrigated	Unirrigated
Trivandrum	177	1266	4248	7512	11760	8778
Quilon	1329	484	2735	13778	16513	14262
Pathanamthitta	1000	2315	1465	1769	3234	4054
Alleppey	212	1410	1025	13337	14362	14747
Kottayam	7116	5133	1968	398	2466	5531
Idukki	431	864	2034	1261	3295	2125
Ernakulam	3247	172	33081	1922	35003	2094
Trichur	6541	648	33077	9439	42516	10087
Palghat	17146	742	47364	12754	60118	13496
Malappuram	1866	247	20150	13598	33748	13845
Kozhikode	679	1091	919	8743	9662	9843
Wynad	2266	5170	9768	5939	15707	11109
Cannanore	1553	582	11363	3478	14841	4060
State	43563	20124	169197	93928	263125	114052

TABLE 20

Irrigated and Unirrigated area under high yielding and other varieties (summer-paddy)---1984-85
(in hectare)

District	High yielding				Other varieties				Total	
	Irrigated	Unirrigated	Total	Irrigated	Unirrigated	Total	Irrigated	Unirrigated	Irrigated	Unirrigated
Trivandrum	169	10	179	138	9	147	307	19		
Quilon	..	6	6	169	65	234	169	71		
Pathanamthitta	3156	..	3156	324	16	340	3480	16		
Alleppey	2045	13792	15837	1300	7733	9033	3345	21525		
Kottayam	776	3444	4220	872	724	1596	1648	4168		
Idukki	3	260	263	27	70	97	30	330		
Ernakulam	3460	36	3496	10546	29	10575	14006	65		
Trichur	9538	..	9538	7721	..	7721	17259	..		
Palghat	519	..	519	1415	33	1448	1934	33		
Malappuram	2340	58	2398	2565	110	2675	4905	168		
Kozhikode	1525	273	1798	610	66	676	2135	339		
Wynad	2254	489	2743	3493	268	3761	5747	757		
Cannanore	245	54	299	2099	102	2201	2344	156		
State	26030	18422	44452	3127	9225	40504	57309	27647		

TABLE 21

Total area and classification of area in each district—1984-85

(Area in hectare)

District	Total geographical area according to village papers	Forest	Land put to non-agricultural uses	Barren and uncultivable land	Permanent pasture and grazing land	Land under miscellaneous tree crops
(1)	(2)	(3)	(4)	(5)	(6)	(7)
Trivandrum	218600	49861	17572	2286	34	221
Quilon	251838	81438	21817	1088	28	338
Pathanamthitta	268750	155214	8346	827	11	181
Alleppey	136058	..	27451	576	10	134
Kottayam	219550	8141	18823	2034	47	285
Idukki	514962	260907	13887	19202	1680	15474
Ernakulam	235319	8123	33544	2869	166	1209
Trichur	299390	103619	22074	2205	149	1367
Palghat	438980	136257	33081	13585	243	7147
Malappuram	363230	10344	19414	7419	323	3042
Kozhikode	233330	41386	17070	2434	123	3286
Wynad	212560	78787	5474	2369	138	3570
Cannanore	492930	54359	41150	28794	1206	14785
State	3885497	1081509	279703	85688	4158	51039

TABLE 21—(Contd.)

District	(Area in hectare)						
	(1)	(8)	(9)	(10)	(11)	(12)	(13)
	Cultivable waste land	Fallow other than current fallow	Current fallow	Net area sown	Area sown more than once	Total cropped area	
Trivandrum	2196	1617	1269	143544	81565	225109	
Quilon	1122	906	1075	114026	83746	227772	
Pathanamthitta	634	501	1023	102013	2551	104564	
Alleppey	1849	1088	2122	102828	69137	171965	
Kottayam	1494	1955	2513	184258	48855	233113	
Idukki	39374	1216	1618	161604	18319	179923	
Ernakulam	5401	2648	3232	178127	68724	246851	
Trichur	5190	3100	4753	156933	72800	229733	
Palghat	25287	3468	6067	213845	109965	323810	
Malappuram	14343	4298	8812	202162	39680	241842	
Kozhikode	3361	1480	2265	161925	48219	210144	
Wynad	5455	1589	1362	113816	25842	139658	
Cannanore	24392	3355	5547	319342	20817	340159	
State	130098	27221	41658	2184423	690220	2874643	

TABLE 22

Area under crops 1984-85

(Area in hectare)

District	Cereals and Millets								
	Rice			Jowar			Ragi		Other cereals and millets
	Autumn	Winter	Summer	Total	Jowar	Ragi	Other cereals		
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	
Trivandrum	13491	13203	326	27020	..	19	10	27049	
Quilon	18997	18326	240	37563	..	6	6	37575	
Pathanamthitta	7394	6549	3496	17439	..	2	17	17458	
Alleppey	32755	15984	24870	73610	..	5	2	73617	
Kottayam	11559	14615	5816	31990	..	4	2	31996	
Idukki	3525	4590	360	8475	56	262	228	9021	
Ernakulam	36680	38422	14071	89183	5	2	136	89326	
Trichur	35576	19705	17259	102540	9	29	78	102656	
Palghat	86339	78006	1967	166312	1682	817	1789	170600	
Malappuram	32251	35861	5073	73185	11	10	66	73272	
Kozhikode	7439	11432	2474	21345	..	17	20	21382	
Wynad	4	23143	6504	29651	5	17	13	29686	
Cannanore	32590	16976	2500	52066	54	10	93	52223	
State	318611	326812	84956	730379	1822	1200	2460	735861	

TABLE 22—(Contd.)

(Area in hectare)

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District	Pulses including Tur					Sugar crops				
	Autumn (10)	Winter (11)	Summer (12)	Total (13)	Total food- grains (14)	Sugar- cane (15)	Palm- yrah (16)	Total (17)		
(1)										
Trivandrum	196	560	2078	2834	29883	21	564	585		
Quilon	932	478	398	1808	39383	194	30	224		
Pathanamthitta	43	143	210	396	17854	1328	34	1362		
Alleppey	58	203	369	630	74247	1273	14	1287		
Kottayam	210	195	1806	2211	34207	262	443	705		
Idukki	132	251	786	1169	10190	1954	204	2158		
Ernakulam	512	281	602	1395	90721	50	363	413		
Trichur	1712	316	412	2440	105096	5	900	905		
Palghat	2713	4947	1002	8662	179262	2690	7120	9810		
Malappuram	505	173	560	1238	74510	14	1271	1285		
Kozhikode	230	362	603	1195	22577	3	348	351		
Wynad	3	15	259	277	29963	14	230	244		
Cannanore	34	3216	1210	4460	56683	31	185	216		
State	7280	11140	10295	28715	764576	7839	11706	19545		

TABLE 22—(Contd.)

(Area in hectare)

District	Spices and condiments									
	Pepper	Chillies	Ginger	Turmeric	Cardamum*	Betalnuts	Tamarind	Cloues		
(1)	(18)	(19)	(20)	(21)	(22)	(23)	(24)	(25)		
Trivandrum	5001	..	192	35	164	3268	1726	133		
Quilon	7515	..	932	76	105	3061	664	68		
Pathanamthitta	4276	..	509	18	45	1334	206	51		
Alleppey	3644	..	204	21	..	2138	267	16		
Kottayam	11762	1	2533	558	..	2328	432	368		
Idukki	12819	..	1209	173	49552	2282	167	81		
Ernakulam	6191	..	2282	626	..	5727	741	113		
Trichur	3780	3	96	149	..	6201	1460	31		
Palghat	1665	187	410	290	3270	2170	2999	2		
Malappuram	4069	84	357	92	188	8300	1176	8		
Kozhikode	13354	75	1723	287	412	5374	610	7		
Wynad	8258	5	2757	193	4254	1115	110	7		
Cannanore	23501	646	1333	367	779	13480	543	7		
State	105835	1001	14537	2885	58769	56778	11101	892		

TABLE 22—(Contd)

District	Spices and condiments				Fresh fruits					Pine-apple
	Nutmeg (26)	Cinnamon (27)	Total (28)	Mango (29)	Jack (30)	Banana (31)	Other plantation (32)	(33)		
(1)										
Trivandrum	85	9	10613	7293	7123	827	5406	377		
Quilon	89	24	12534	4758	4808	1445	2705	469		
Pathanamthitta	106	8	6553	1792	2263	750	1864	207		
Alleppey	101	34	6425	4057	2313	699	1489	208		
Kottayam	493	52	18527	3634	4250	1597	3231	669		
Idukki	160	35	66478	1663	2214	181	2473	301		
Ernakulam	1174	43	16897	4595	3942	2145	3333	589		
Trichur	229	35	11984	4550	3644	1577	3273	344		
Palghat	63	157	11213	5752	3810	1778	2404	202		
Malappuram	98	13	14385	6190	5100	2381	2214	200		
Kozhikode	48	61	21951	6844	6654	1030	2368	249		
Wynad	6	24	16729	2475	5120	523	1137	123		
Cannanore	268	188	41112	6381	6731	1190	3397	898		
State	2920	683	255401	59984	58052	16123	35294	4836		

(Area in hectare)

TABLE 22—(Contd.)

(Area in hectare)

District	Fresh fruits			Dry fruits			Vegetables			
	Pappaya (34)	Others (35)	Total (36)	Cashewnut (37)	Total fruit trees (38)	Drum stick (39)	Tubers (40)	Sweet potato (41)		
(1)										
Trivandrum	660	1074	22760	6294	29054	2879	1972	122		
Quilon	481	395	15061	7221	22282	1080	3963	38		
Pathanamthitta	311	351	7538	2030	9568	352	3184	2		
Alleppey	632	532	9930	3530	13460	607	5224	51		
Kottayam	721	722	14824	1395	16219	1232	2799	23		
Idukki	626	1023	8481	1189	9670	312	1229	129		
Ernakulam	1019	625	16248	3809	20057	1037	2415	46		
Trichur	1442	500	15330	7510	22840	688	2080	148		
Palghat	528	2331	16805	12857	29662	744	1859	1712		
Malappuram	1244	569	17978	19850	37828	904	2003	1503		
Kozhikode	1020	885	19050	4197	23247	2131	1946	66		
Wynad	105	1001	10484	922	11406	180	823	18		
Cannanore	762	1752	21111	66059	87170	635	974	777		
State	9551	11760	195600	136863	332463	12781	30471	4635		

District	Vegetables							Total food crops
	Tapioca				Total	Other Vegetables	Total Vegetables	
	Autumn	Winter	Summer	Total				
(1)	(42)	(43)	(44)	(45)	(46)	(47)	(48)	
Trivandrum	22971	22953	6705	52629	627	58229	128364	
Quilon	14796	26563	734	42093	263	47437	121860	
Pathanamthitta	1175	11849	626	13650	344	17532	52869	
Alleppey	1904	7994	866	10764	844	17490	112909	
Kottayam	1337	18252	495	20084	1122	25260	94918	
Idukki	1037	8052	84	9173	947	11790	100286	
Ernakulam	2794	6824	746	10364	2512	16374	144462	
Trichur	1470	3887	331	5688	1095	9699	150524	
Palghat	6266	5673	576	12515	2408	19238	249185	
Malappuram	6058	8295	1388	15741	1846	21997	150005	
Kozh kode	1961	1467	422	3850	281	8274	76400	
Wynad	1136	1424	435	2995	301	4317	62659	
Cannanore	1553	14560	1083	17196	1590	21172	206353	
State	64458	137793	14491	216742	14180	278809	1650794	

TABLE 22—(Contd.)

(Area in hectares)

District	Non-food crops					Total
	Oil seed crops				Others	
	Ground nut	Seasamum	Coconut			
(49)	(50)	(51)	(52)	(53)		
Trivandrum	15	19	76969	211	77214	
Quilon	..	2127	68927	56	71110	
Pathanamthitta	..	201	25926	15	26142	
Alleppey	..	4567	45699	92	50358	
Kottayam	..	66	48179	113	48358	
Idukki	..	245	15036	66	15347	
Ernakulam	..	2131	55678	183	57992	
Trichur	..	1278	62438	178	63894	
Palghat	11744	1121	25504	539	38908	
Malappuram	5	2239	62214	53	64511	
Kozhikode	..	76	107599	68	107743	
Wynad	..	115	3251	50	3416	
Cannanore	50	263	90063	169	90555	
State	11824	14448	687483	1783	715548	

TABLE 22—(Contd.)

(Area in hectares)

District	Non-food crops				
	Fibre cotton	Betal leaves	Drugs and narcotics	Tobacco	Lemon grass	Total
(1)	(54)	(55)	(56)	(57)	(58)
Trivandrum	..	157	..	46	203
Quilon	..	107	..	26	133
Pathanamthitta	..	67	..	21	88
Alleppey	..	60	..	4	64
Kottayam	..	75	..	56	131
Idukki	..	5	..	2316	2321
Ernakulam	..	83	..	538	621
Trichur	..	78	..	48	126
Palghat	6326	8	..	105	113
Malappuram	..	337	..	96	433
Kozhikode	..	41	..	782	823
Wynad	..	3	..	2313	2316
Cannanore	..	25	533	1411	1969
State	6326	1046	533	7762	9341

TABLE 22—(Contd.)

(Area in hectares)

District	Non-food crops					Total
	Tea*	Coffee*	Rubber	Cocoa		
(1)	(59)	(60)	(61)	(62)	(63)	
Trivandrum	1071	50	14391	876	16888	
Quilon	681	207	30208	970	32066	
Pathanamthitta	734	180	22098	940	23952	
Alleppey	..	16	5580	1991	7587	
Kottayam	2009	990	78739	5463	87201	
Idukki	23804	4875	28794	1936	59409	
Ernakulam	2	274	34319	1970	36565	
Trichur	447	33	11019	730	12229	
Palghat	665	2291	13013	229	16198	
Malappuram	174	..	18711	460	19345	
Kozhikode	..	..	20470	934	21404
Wynad	5389	55093	5023	347	65852	
Cannanore	..	..	29111	1014	30125
State	34976	64089	311976	17860	428821	

* Commodity Board estimates

TABLE 22—(Contd.)

District	(Area in hectares)					
	Fodder crops (64)	Green mature crops (65)	Other non-food crops (66)	Total non-food crops (67)	Total cropped area (68)	
Trivandrum	251	334	1855	96745	225109	
Quilon	273	610	1720	105912	227772	
Pathanamthitta	167	449	897	51695	104564	
Alleppey	132	164	751	59056	171965	
Kottayam	346	231	1928	138195	233113	
Idukki	318	188	2054	79637	179923	
Ernakulam	103	206	6902	102389	246851	
Trichur	77	398	2485	79209	229733	
Palghat	37	1046	11997	74625	323810	
Malappuram	23	2284	5241	91837	241842	
Kozhikode	35	826	2913	133744	210144	
Wynad	79	381	4955	76999	139658	
Cannanore	148	1482	9527	133806	340159	
State	1989	8599	53225	1223849	2874643	

TABLE 23

Production of Important crops during 1984-85

District	Rice				Total	Jowar	Ragi	Other cereals
	Autumn	Winter	Summer					
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	
Trivandrum	24470	20545	304	45319	..	15	5	
Quilon	27693	30992	244	58929	..	5	3	
Pathanamthitta	13607	12227	10086	35920	..	2	9	
Alleppey	61687	21606	57221	140514	..	4	2	
Kottayam	25021	27056	14495	66572	..	3	1	
Idukki	7112	9530	759	17401	24	225	244	
Ernakulam	62011	64482	22706	149199	2	2	87	
Trichur	42606	73828	30947	147381	3	24	50	
Palghat	196006	151524	2940	350420	866	671	1286	
Malappuram	41216	50974	8522	100712	4	9	42	
Kozhikode	6152	13977	3769	23898	..	17	13	
Wynad	4	41932	11553	53489	2	16	8	
Cannanore	41442	21186	3470	66098	24	7	59	
State	549027	539859	167016	1255902	925	1000	1809	

TABLE 23—(Contd.)

District	Pulses (9)	Sugarcane (gur)* (10)	Black pepper (11)	Dry chillies (12)	Dry ginger (13)	Cured turmeric (14)	Processed** cardamum (15)	Betal nuts (Million nuts) (16)
Trivandrum	649	96	925	..	780	68	4	377
Quilon	1518	1119	1394	..	2615	144	2	360
Pathanamthitta	306	7657	970	..	1328	32	1	212
Alleppey	545	7340	846	..	654	4	..	157
Kottayam	1852	1511	933	1	6413	1009	..	251
Idukki	966	10430	1778	..	3379	310	2280	223
Ernakulam	999	288	547	..	7385	1125	..	1089
Trichur	1742	29	677	3	156	233	..	1071
Palghat	6289	13961	263	164	986	523	310	372
Malappuram	919	73	660	74	702	59	2	1153
Kozhikode	909	16	2352	66	2455	654	3	1128
Wynad	211	73	1835	4	10554	512	224	190
Cannanore	3479	161	4170	601	3838	513	24	2686
State	20384	42754	17350	913	41245	5186	2850	9269

*Production estimates of sugarcane for 1982-83 and 1983-84 have been revised as 43316 tonnes and 44630 tonnes respectively.

**Commodity Board estimates.

TABLE 23—(Contd.)

District	Tamarind	Mango	Jack '000 Nos.	Banana	Other plantain	Raw cashewnut	Tapioca	Sweet potato
(1)	(17)	(18)	(19)	(20)	(21)	(22)	(23)	(24)
Trivandrum	4375	6607	30052	11069	20391	4158	811539	702
Quilon	1374	14773	52479	15032	12484	3431	713897	183
Pathanamthitta	287	4785	17672	9736	8034	418	275048	12
Alleppey	192	9071	9113	11043	4692	862	158661	315
Kottayam	487	4633	14229	24980	16084	626	406902	184
Idukki	208	2747	7224	2262	9791	318	180158	1043
Ernakulam	1005	12025	16939	26465	16392	1583	205207	361
Trichur	3038	20070	13818	17599	7194	3209	73773	1161
Palghat	7821	41858	14573	12446	11542	5843	234281	13708
Malappuram	2092	26598	10008	24529	6888	7326	273579	12843
Kozhikode	1473	22079	15564	12261	8572	1478	29607	368
Wynad	265	2900	8392	6720	6112	292	69035	146
Cannanore	931	25141	18376	15422	13452	42750	262583	7753
State	23548	193327	228439	189564	141628	72294	3694270	38779

TABLE 23--(Contd.)

District	Pappaya (25)	Groundnut (26)	Sesamum (27)	Coconut (Million nuts) (28)	Cotton (Bale of 170 kg.) (29)	Tobacco (30)
(1)						
Trivandrum	3723	13	3	488	..	..
Quilon	391	..	330	275	..	..
Pathanamthitta	2069	..	31	124	..	..
Alleppey	3365	..	1589	282	..	..
Kottayam	4895	..	21	192	..	..
Idukki	1252	..	76	44	..	..
Ernakulam	4227	..	298	363	..	..
Trichur	6192	..	557	297	..	..
Palghat	3918	11697	219	76	10010	..
Malappuram	7592	5	430	193	..	..
Kozhikode	500	..	20	676	..	..
Wynad	817	..	15	2	..	..
Cannanore	3772	53	43	441	..	981
State	42713	11768	3632	3453	10010	981

TABLE 23—(Contd.)

District	Lemon grass oil	Tea*	Rubber	Cocoa	Pinapple	Drumstick
(1)	(31)	(32)	(33)	(34)	(35)	(36)
Trivandrum	3	1051	9568	105	4779	3458
Quilon	2	174	20046	73	5504	1074
Pathanamthitta	2	188	14319	402	2282	302
Alleppey	1	..	3199	425	2146	436
Kottayam	4	421	49207	1661	7224	477
Idukki	160	41335	17780	505	3466	327
Ernakulam	62	..	21727	668	6491	819
Trichur	2	1296	7507	68	2864	1223
Palghat	19	1374	6879	63	2461	746
Malappuram	2	93	9522	143	2137	948
Kozhikode	13	..	11820	150	3358	2010
Wynad	39	10397	2116	76	1659	194
Cannanore	42	..	15210	197	15457	688
State	351	56329	188900	4536	59828	12702

*Commodity Board estimates.

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