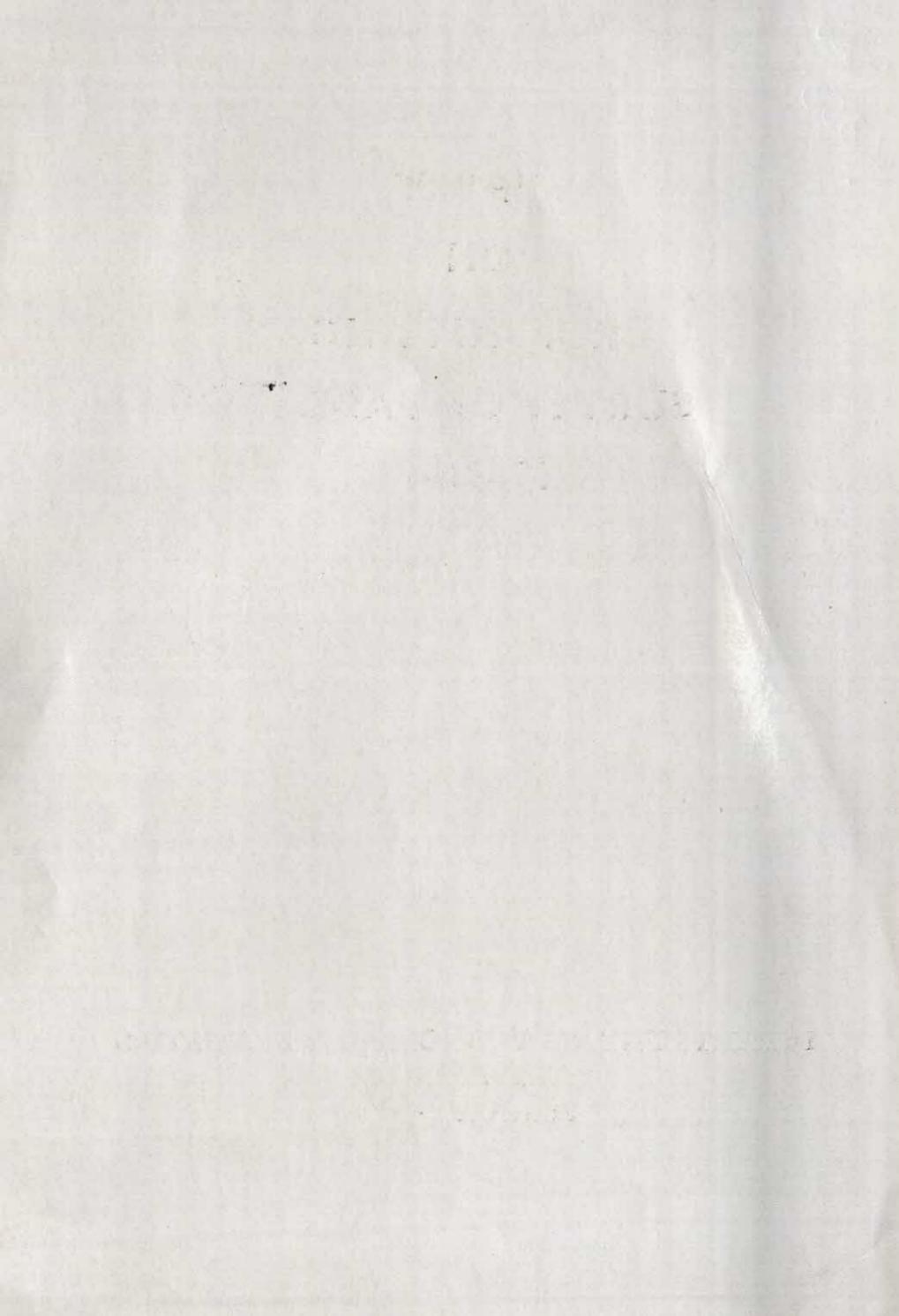


ST NO
2380

REFER ERAVI ALSO

**REPORT
ON
CROP CUTTING
SURVEY OF PADDY
1983-84**

**DEPARTMENT OF ECONOMICS & STATISTICS
TRIVANDRUM
FEBRUARY, 1987**



**REPORT
ON
CROP CUTTING SURVEY OF PADDY
1983-84**

**DEPARTMENT OF ECONOMICS & STATISTICS
TRIVANDRUM
FEBRUARY, 1987**

REPORT
ON
CROSS CUTTING SURVEY OF THE STATE
1888-1893

REPORT ON THE ECONOMIC DEVELOPMENT
OF THE KALININGRAD
REGION

FOREWORD

Crop estimation surveys on paddy are being conducted by the Department regularly since 1950, separately for each season viz., Autumn (Virippu), Winter (Mundakan) and Summer (Puncha). This report gives the results of the crop estimation surveys conducted during the three seasons of 1983-84 viz., Autumn 83, Winter 84 and Summer 84. This report deals with the object, area covered by the survey, the sampling technique adopted, the results of the analysis of the data and the reliability of the results obtained from the survey on the Autumn, Winter and Summer crop of paddy 1983-84.

This report was prepared in the Agriculture Division of the Department of Economics and Statistics.

Suggestion for the improvement of the publication are welcome.

(Sd.)

Trivandrum,
6-2-1987.

K. BALAKRISHNAN NAIR,
Director.

the author's name
to all who
are interested
in the history
of the country.
He has done
many valuable services
to the cause of
the people, and
his efforts will
not be forgotten.
The author
has written
a good book
and it is
well worth
the price.
I hope
you will
enjoy it.

CONTENTS

	<i>Pages</i>
1. Introduction	1
2. Objectives of the survey	1
3. Period of the survey	1
4. Coverage	1
5. Sampling design	1
6. Sample selection	2
7. Field work	2
8. Supervision	2
9. Analysis	2
10. Procedure of estimation	2
11. Results of the survey	4
12. High yielding varieties	5
13. Cultivation practices	8

equal

and

the

APPENDIX

1. Table 1.1 Taluk-wise Estimates of Area, mean yield and production of Rice—Autumn 1983.
2. Table 2.1 Taluk-wise estimates of Area mean yield and production of Rice—Winter 1984.
3. Table 3.1 Taluk-wise estimates of Area, mean yield and production of Rice—Summer 1984.
4. Table 1.2 Taluk-wise estimates of mean yield of dry paddy—Autumn 1978 to 1983.
5. Table 2.2 Taluk-wise estimates of mean yield of dry paddy—Winter 1979-1984.
6. Table 3.2 Taluk-wise estimates of mean yield of dry paddy—Summer 1979-1984.
7. Table 1.3 District-wise estimated Area, mean yield and production of high yielding and other varieties of paddy—Autumn 1983.
8. Table 2.3 District-wise estimated Area, mean yield and production of High yielding and other varieties of paddy—Winter 1984.
9. Table 3.3 District-wise estimated Area mean yield and production of High yielding and other varieties of paddy—Summer 1984.
10. Table 1.4 District-wise yield for High yielding and other varieties of paddy according to cultural practices—Autumn 1983.
11. Table 2.4 District-wise yield for High yielding and other varieties of paddy according to cultural practices—Winter 1984.
12. Table 3.4 District-wise yield for High yielding and other varieties of paddy according to cultural practices—Summer 1984.

REPORT ON CROP CUTTING SURVEY OF PADDY 1983-84

1. *Introduction.*—Crop estimation surveys on paddy are being conducted regularly by this department separately for the three crop seasons viz. Autumn (Virippu), Winter (Mundakan) and Summer (Punja). The present report relates to the crop cutting survey on paddy during the three seasons of 1983-84.

2. *Objectives of the survey.*—The main objectives of the survey were:

1. To estimate the average yield per hectare of dry paddy at the taluk, district and the state level for each season.
2. To estimate the total production of rice in the state during each crop season.
3. To estimate the average yield per hectare of High Yielding varieties of paddy at the district level.
4. To study the difference in yield of paddy according to various cultivation practices.

3. *Period of the survey.*—The period of the Crop Cutting Survey on Autumn paddy was from August 1983 to October 1983, for winter from December 1983 to February 1984 and for Summer from March 1984 to May 1984.

4. *Coverage.*—The survey covered the whole state except the forest area during all the three seasons of 1983-84.

5. *Sampling Design.*—For the conduct of the survey a stratified multi-stage random sampling design was adopted. Taluk was treated as stratum and revenue village selected for EARAS survey as the first stage unit. In each village lists of survey subdivision numbers of wet and dry land plots growing paddy under high yielding variety irrigated, HYV unirrigated local irrigated and local unirrigated are prepared separately and the number of survey subdivisions are fixed in proportion to the area under paddy. These survey subdivision numbers form the second stage units. The second stage units are selected from the above list by simple random survey method. From each selected survey subdivision one kandom is selected and these kandoms form the third stage units and a square plot of side 5 metres is taken as the ultimate sample unit. The number of experiments to be conducted in each season is fixed considering the area of the crop and the availability of investigators. However the number of experiments in a taluk is limited to 30, subject to a minimum of two experiments in a village. The sample villages were selected for EARAS survey, at the beginning of the agricultural year.

Three samples each weighing 250 gms. of wet paddy were collected at the time of harvest from a taluk, for conducting driage experiments. The first sample was taken at the beginning, the second towards the middle and the third towards the end of the harvest season.

6. *Sample selection.*—The selection of plots in each investigator unit was done by the Taluk Statistical Inspector. For the selection of kandom, if the number of kandoms in the selected survey subdivision are more than one, the kandoms are serially numbered anti clock-wise direction from the south west corner and select one kandom on simple random method to locate a square plot of side 5 metres. The investigators in the field are attending to this work.

7. *Field work.*—The field work of the survey was attended to by the Investigators under the immediate supervision of the Taluk Statistical Inspectors. The District Statistical Officers were also made responsible for the proper conduct and supervision of the field work of the survey. The Additional District Statistical Officers also conducted supervision of the field work.

The total number of crop cutting experiments planned in the State during Autumn, Winter and Summer of 1983-84 were 1550, 1560 and 1002 respectively. The percentage response was 95.7 for Autumn, 96% for winter and 93.5 for the summer season.

8. *Supervision.*—The inspection on the field work of the survey was done at three stages viz. preharvest , harvest and post harvest stages by the Additional Statistical Inspectors, Statistical Inspectors, Additional District Statistical Officers, District Statistical Officers and Deputy Directors. The Officers at the district level had to conduct harvest stage inspection at the rate of one experiment in each taluk. The Statistical Inspectors/ Additional Inspectors had to conduct atleast one harvest stage inspection in each investigator unit, subject to a minimum of six experiments in a taluk. Harvest stage inspections were conducted during Autumn, Winter and Summer seasons of 1983-84, to the extend of 46%, 46% and 45% respectively of the experiments analysed. The percentage of inspection at the pre-harvest stage during the three seasons were respectively 16, 12 and 14.

9. *Analysis.*—The tabulation and analysis of data collected through the survey was done by the Agricultural statistics division of the Directorate.

10. *Procedure of estimation.*—(1) Mean yield. The taluk-wise mean yield of dry paddy and its standard error were estimated using the following formula. Taluk-wise Mean yield of dry paddy under four fold classification

$$\bar{X}_p = \frac{\sum_{i=1}^k \sum_{j=1}^{n_i} x_{ij}}{\sum_{i=1}^k n_i} \quad \text{where } n_i = \text{number of experiments}$$

conducted in the ith village ($i=1, 2, 3, \dots, k$)

K =Number of villages selected in the taluk

x_{ij} =weight of paddy obtained from the jth experiment in the ith village.

$P=1, 2, 3, 4$ and $\overline{X_1}, \overline{X_2}, \overline{X_3}$ and $\overline{X_4}$ respectively denote the taluk-wise mean yield of dry paddy under HYV irrigated, HYV unirrigated, local irrigated and local unirrigated.

Each experiment is taken from a 5 metre square ie $1/4$ 00 th of a hectare. Mean yield of dry paddy in Kg. per hectare = $\overline{XP} \times 400 \times d$ where d is the driage ratio.

The taluk-wise mean yield of dry paddy (for all varieties together) is obtained as the weighted average of the yield of paddy under each classification, the weights being the proportionate area under each classification in the taluk—

(ii) *Standard error of Taluk Mean yield.*—Standard error of mean yield per hectare under p th classification for the i th taluk is calculated by using the formula.

$$S_{ip} = \sqrt{\frac{m.ss}{N}} \times d \times 400$$

Where N is the number of experiments conducted in the plots under the i th classification d is the driage ratio.

$$m.ss = \text{Mean sum of squares ie. } \frac{TSS}{N-1}$$

$$TSS = \sum x_{ip}^2 - \frac{(\sum x_{ip})^2}{n}$$

Where x_{ip} is the plot yield under p th classification in the i th taluk.

$$P=1, 2, 3, 4$$

s_{i1}, s_{i2}, s_{i3} and s_{i4} are the standard error of the i th taluk mean yield under HYV irrigated, HYV unirrigated, local irrigated and local unirrigated. Then standard error of the i th taluk mean yield is

$$s_i = \sqrt{\frac{\sum_{P=1}^4 (a_{ip} s_{ip})^2}{\sum_{P=1}^4 (a_{ip})^2}} = \frac{1}{\sum a_{ip}} \sqrt{\sum (a_{ip} s_{ip})^2}$$

Where a_{ip} is the area under paddy in the p th classification of the i th taluk.

(iii) *Standard error of the district and state mean yield.*—The formula adopted for the computation of the district mean yield and state mean yield is similar to the one used for the Taluk mean yield and is given by

$$SE = \frac{\sum (a_{si})^2}{\sum (a_{si})^2}$$

a_i is the area under paddy of the i th taluk and s_i is the S. E. of the i th taluk mean yield in the case of computation of standard error of district mean yield and a_i is the area of the i th district and s_i , SE of the i th district mean yield in the case of computation of standard error of the state mean yield.

To compute the production of rice the area under paddy in each taluk estimated through T. R. S. have been utilised.

The weight of clean rice is reckoned as 65.7% of dry paddy

11. *Result of the Survey — General.*—The estimated production of rice in the state during the three seasons of the year 1983-84 and the previous year 1982-83 are given below:

	1983-84	1982-83
Autumn	520458 tonnes	578828 tonnes
Winter	520622 "	565704 "
Summer	166836 "	161665 "
Total	1207916 "	1306197 "

During 1983-84, 1207916 tonnes of Rice had been produced from 740086 hectares of land while 1306197 tonnes of rice had been produced from 778490 hectares of land. This shows that the average production has decreased from last year. It has been reported from various taluks that the untimely rain fall and attack of pests were the main causes for the fall on production.

The estimates of area, mean yield and its standard error together with the number of crop cutting experiments analysed season-wise in each taluk are given in appendix 1.1, 2.1 and 3.1.

The yield rate obtained from about 44% in Autumn 1983, 38% in Winter 84 and 42% in summer 1984 of the experimental plots was above 2500 Kg. of wet paddy per hectare. During Autumn 1983, about 10% of the experimental plots had yield rates above 4000 Kg./hect. This percentage was 8 and 12 for winter and summer respectively. The lowest yield rate of 500 Kg. and less of wet paddy per hectare was obtained from about 5% of the experimental plots during Autumn 1983, about 5 % in Winter 1984 and about 10% in Summer 1984.

159, 170 and 150 driage experiments were conducted in Autumn, Winter and Summer 1983-84 respectively to obtain the driage ratio of dry paddy to wet paddy. During Autumn 1983, the driage ratio varied from 0.86 in Kozhikode

district to 0.92 in Kottayam district. The lowest and highest driage ratio of 0.86 and 0.95 was noted in Idukki and Wayanad districts respectively in winter 1984. During Summer 1984, the driage ratio varied from 0.87 in Quilon district to 0.95 in Wynad district.

12. High yielding varieties

Tables 1.3, 2.3 and 3.3 in the appendix show the estimated area mean yield and production of high yielding varieties and other varieties of paddy in each district and state during the three seasons Autumn, Winter and Summer respectively. High yielding varieties were cultivated respectively in about 31% and 55% of the total area under paddy in Autumn and Summer while only 19% of the area only was brought under HYV during Winter.

As regards production of rice, it is estimated that about 38% and 64% of the total outturn of rice in the state during Autumn and Summer were from HYV. The state level productivity of high yielding varieties was higher than that of local varieties in all the three seasons by 37% in Autumn, 35% in Winter and 41% in Summer.

The productivity of HYV was found to be higher compared to local varieties in all the districts in Autumn 1983. During winter the productivity was low only in Wayanad district and during Summer it was low in Trivandrum and Kottayam districts.

The district-wise yield rate of High yielding variety varied from 1516 Kg./hectare in Kozhikode district to 3568 Kg./ hectare in Kottayam district during Autumn. It was 2102 Kg./hect. in Malappuram district and 3611 Kg./hect. in Alleppey district during winter and 1041 Kg./hect. in Quilon district to 3878 Kg./hect. in Alleppey district during summer.

During Autumn 1983, about 35% of the experimental plot covered by the survey were grown with HYV of paddy. These percentages during winter 84 and summer 84 were 23 and 42 respectively. The high yielding varieties of paddy in the order of cultivators preference was Jyothi, Jaya and IR8 during Autumn 1983, Jyothi, H4 and Mashoori during winter 1984 and Jyothi, Pavizham and Triveni during Summer 1984. The highest state average yield of 4005 Kg./ hect. under autumn crop was obtained from IR5 followed by 3484 Kg./hect. from Jaya and 3408 Kg./hect. from Asha. During winter 1984, the highest state average of 3432 Kg./hect. was obtained from IR8 followed by 3248 Kg./hect. from Pavizham and 3032 Kg. /hect. from H4. while during summer 84 H4, IR5 and Pavizham have yielded the highest state average of 3518 Kg./hect. 3344 Kg./hect. and 3298 Kg./hect. respectively.

The names of High yielding varieties of paddy corresponding to the highest district average together with the highest mean yield and the number

of experimental plots where the crop was raised in each district during Autumn 1983 are indicated in the table given below:

District-wise High Yielding variety with highest average yield—Autumn 1983

Sl. No.	District	HYV corresponding to the highest district average	Highest average yield of dry paddy (Kg./Ha.)	No. of experimental plots where HYV raised
(1)	(2)	(3)	(4)	(5)
1.	Trivandrum	Sabari	5203	1
2.	Quilon	Pavizham	4479	2
3.	Alleppey	Culture 28	4799	2
4.	Kottayam	I. R. 8	4519	3
5.	Idukki	I.R. 8	3694	1
6.	Ernakulam	I. R. 5	4128	1
7.	Trichur	Naveen	3034	1
8.	Palghat	I. R. 8	4656	1
9.	Malappuram	Jaya	3222	4
10.	Kozhikode	Bhavani	3134	1
11.	Wayanad	..	..	..
12.	Cannanore	I. R. 5	3778	1

The highest district average was obtained for Sabari in Trivandrum District followed by culture 28 in Alleppey and I. R. 8 in Palghat I. R. 8 had attained the highest district average in 3 districts.

The names of High yielding varieties of paddy corresponding to the highest district average together with the highest mean yield and the number

of experimental plots where the crop was raised in each district during Winter 1984 are indicated below:—

District-wise High yielding variety with highest average yield-Winter 1984

<i>Sl. No.</i>	<i>District</i>	<i>HYV corresponding to the highest district average</i>	<i>Highest average yield of dry paddy (Kg./Ha.)</i>	<i>No. of experimental plots where HYV in col. 3 is raised</i>
(1)	(2)	(3)	(4)	(5)
1	Trivandrum	Jyothi	2587	3
2	Quilon	Santhosh	2607	1
3	Alleppey	Sabari	4245	1
4	Kottayam	Triveni	3301	2
5	Idukki	I.R. 20	3535	1
6	Ernakulam	H4	3424	6
7	Trichur	Triveni	3334	1
8	Palghat	I.R. 20	4363	2
9	Malappuram	Jaya	6292	1
10	Kozhikode	Jyothi	3260	3
11	Wayanad	I.R. 8	4679	2
12	Cannanore	Bharathy	4125	1

The highest district average was obtained from Jaya in Malappuram District followed by I.R. 8 in Wayanad Districts and I.R. 20 in Palghat District. Jyothi, Triveni and I.R. 20 obtained the highest average yield in two district each.

The names of high yielding varieties of paddy corresponding to the highest district average together with the highest mean yield and number of experimental plots where the crop was raised in each district during summer 84 are furnished in the table given below:—

District-wise High Yielding variety with highest average yield—Summer 1984

<i>Sl. No</i>	<i>District.</i>	<i>HYV corresponding to the highest district average</i>	<i>Highest average yield of dry paddy (Kg./Ha.)</i>	<i>No. of experimental plots where HYV in col. 3 is raised</i>
(1)	(2)	(3)	(4)	(5)
1	Trivandrum	Culture 28	1588	1
2	Quilon	Sabari	1034	2
3	Alleppey	Culture 28	4454	1
4	Kottayam	H4	3891	2
5	Idukki	..	..	..
6	Ernakulam	I.R. 8	4136	..
7	Trichur	Triveni	3199	17
8	Palghat	Mashoori	4027	1
9	Malappuram	H4	5589	1
10	Kozhikode	Culture 28	1760	10
11	Wynad	Culture	5100	1
12	Gannanore	Jaya	2905	3

The highest district average was obtained for H4 in Malappuram District followed by culture 28 in Wayanad and Alleppey districts. Culture 28 attained the highest average yield in four districts while H4 in two, sabari, Mashoori, IR8, jaya and Triveni one district.

13. *Cultivation practices.*—It was observed that about 10% of the experimental plots received irrigation during Autumn while the corresponding figure for Winter and Summer were 51% and 72% respectively. Chemical fertilizers were applied in 94% of the irrigated plots in Autumn, 93% in Winter and 91% in Summer. During Autumn, Winter and Summer, other manures like green manure cowdung etc., were applied in 6%, 6% and 7% of the irrigated plots.

As far as unirrigated plots are concerned 73% of the plots were found to have been applied with chemical fertilizers during Autumn 1983, 74% in Winter 1984 and 93% in Summer 1984.

It was found that crops in 28% of the experimental plots during Autumn 1983, 51% during Winter 1984 and 82% during Summer 1984 were treated with insecticides and pesticides.

In the case of experimental plots where the High yielding varieties were raised, it was found that 12% of them received irrigation during Autumn 83 while 56% and 67% of the experimental plots with HYV respectively were irrigated during Winter 1984 and Summer 1984. Chemical fertilizers were found to have been applied in 97%, 96% and 98% respectively of the irrigated plots with HYV during Autumn, Winter and Summer 1983-84. About 40% of plots with HYV was found to have been applied with insecticides and pesticides during Autumn 1983 while the corresponding figures during Winter and Summer 1983-84 were 71% and 91% respectively.

The estimated average yield of dry paddy per hectare for the HYV and other varieties under various cultivation practices during Autumn, Winter and Summer 1983-84 are given in Tables 1.4, 2.4 and 3.4 in the appendix.

TABLE 1.1

**Taluk-wise Estimates of Area, Mean Yield Production of Rice—
Autumn 1983 (All varieties)**

Sl. No.	Taluk and District	No. of experiments	planned conducted	Area (in Ha.)	Mean yield of dry paddy	Standard error	Production (in tonnes)
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
1.	Neyyattinkara	30	29	3405	2671	177	5975
2.	Trivandrum	30	28	2689	2214	155	3911
3.	Nedumangad	30	29	3835	2201	156	5546
4.	Chirayinkil	30	27	3236	2255	204	4794
Trivandrum District		120	113	13165	2338	93	20226

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
5.	Quilon	30	30	4140	1768	161	4810
6.	Kottarakkara	35	33	6131	2387	298	9614
7.	Kunnathur	30	30	4347	1681	118	4802
8.	Pathanapuram	30	28	3728	3239	485	7934
9.	Pathanamthitta	20	19	1753	3174	194	3655
10.	Karunagappally	30	30	3305	2410	405	5232
Quilon District		175	170	23404	2344	130	36047
11.	Karthigappally	30	26	4103	2822	224	7607
12.	Mavelikkara	30	26	4827	2522	266	7999
13.	Chengannur	24	23	3021	2927	237	5809
14.	Thiruvalla	24	23	1873	2550	151	3138
15.	Kuttanad	30	17	10219	3593	294	15025
16.	Ambalapuzha	30	28	4071	3593	281	9611
17.	Shertallay	30	30	4479	1214	0	3572
Alleppey District		198	173	32593	2464	112	52761
18.	Changanacherry	20	18	1055	2708	362	1877
19.	Kanjurappally	6	6	22	3905	233	57
20.	Kottayam	30	29	5307	3980	284	13878
21.	Vaikom	30	30	4203	3314	210	9151
22.	Meenachil	24	24	2319	2488	226	3791
Kottayam District		110	107	12906	3391	144	28754
23.	Peermade	..	..	..	..	..	..
24.	Devikolam	12	12	1320	2180	208	1891
25.	Udumbanchola	..	..	..	..	..	..
26.	Thodupuzha	24	24	2510	2712	85	4473
Idukky District		36	36	3830	2529	91	6364
27.	Kothamangalam	35	35	3512	2619	192	6042
28.	Muvattupuzha	30	30	4144	2998	160	8162
29.	Cochin	20	20	2329	1844	164	2822
30.	Kanayannur	30	30	3417	2235	141	5018
31.	Kunnathunad	40	40	10341	1885	133	12806
32.	Alwaye	35	35	8543	2404	205	13495
33.	Parur	30	30	3450	1169	200	2650
Ernakulam District		220	220	35736	2172	63	50995

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
54.	Tellichery	35	35	5798	1634	98	6225
55.	Cannanore	30	30	6813	1926	335	8622
56.	Taliparamba	35	35	8809	2041	121	11812
57.	Hosdurg	40	37	6849	2205	133	9924
58.	Kasargode	35	34	8609	2213	171	12519
Cannanore District		175	171	36878	2027	85	49102
State		1550	1484	327783	2417	32	520458

TABLE 2.1

Taluk-wise Estimates of Area, Mean Yield Production of Rice—Winter 1984 (All varieties)

Sl. No.	Taluk and District	No. of experiments	planned conducted	Area (in Ha.)	Mean yield of dry paddy (Kg./Ha.)	Standard error	Production (in tonnes)
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
1.	Neyyattinkara	30	30	3247	1681	253	3585
2.	Trivandrum	30	28	2606	1818	83	3112
3.	Nedumangad	30	30	3580	1536	128	3612
4.	Chirayinkil	30	29	4113	2056	20	5555
Trivandrum District		120	117	13546	1783	71	15864
5.	Quilon	30	28	3251	1917	146	4094
6.	Kottarakkara	30	29	6222	2267	256	9267
7.	Kunnathur	30	30	4557	2030	140	6078
8.	Pathanapuram	30	30	3776	1863	148	4621
9.	Pathanamthitta	20	20	2177	2486	268	3556
10.	Karunagappally	30	30	4083	2173	305	5830
Quilon District		170	167	24066	2115	96	33446

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
11.	Karthigappally	30	29	3471	3561	128	8121
12.	Mavelikara	30	28	4530	1826	209	5434
13.	Chengannur	24	23	2695	2838	178	5025
14.	Thiruvalla	12	12	826	2725	396	1479
15.	Kuttanad	30	26	3286	3128	369	6752
16.	Ambalapuzha	12	12	1022	1841	290	1236
17.	Shertallay	30	28	1956	919	120	1181
Alleppey District		168	158	17786	2501	98	29228
18.	Changanacherry	12	12	1537	3729	358	3766
19.	Kanjirappally	6	6	112	2650	493	195
20.	Kottayam	24	23	4852	3097	242	9874
21.	Vaikom	30	27	5667	2408	134	8966
22.	Meenachil	24	23	2415	3045	620	4831
Kottayam District		96	91	14583	2884	146	27632
23.	Peermade	6	6	22	2113	252	31
24.	Devikolam	12	12	134	2395	236	211
25.	Udumbanchola	11	11	1196	3313	156	2603
26.	Thodupuzha	24	23	2603	2552	139	4365
Idukki District		53	52	3955	2775	103	7210
27.	Kothamangalam	35	35	3244	2006	75	4276
28.	Muvattupuzha	30	30	5772	2617	114	9924
29.	Cochin	..	..	..	..	..	..
30.	Kanayannur	30	30	3702	2300	118	5594
31.	Kunnathunad	40	40	12985	1619	149	13813
32.	Alwaye	35	30	9117	2137	138	12801
33.	Parur	30	30	2274	1089	179	1556
Ernakulam District		200	195	36994	1973	67	47964

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
34.	Cranganore	20	20	2093	833	71	1145
35.	Mukundapuram	35	30	15251	2406	144	24111
36.	Trichur	30	30	12008	2415	155	19050
37.	Thalappally	30	30	15954	2261	52	23700
38.	Chowghat	30	30	2914	1795	148	3437
Trichur District		145	140	48220	2255	63	71443
39.	Chittur	30	28	19158	3877	229	48793
40.	Alathur	30	28	18722	3646	206	44844
41.	Palghat	30	30	16471	3210	131	34741
42.	Ottapalam	35	34	17190	2165	204	24449
43.	Manarghat	35	29	6151	1968	125	7952
Palghat district		160	149	77692	3150	93	160779
44.	Perinthalmanna	30	30	6263	2042	65	8401
45.	Ponnani	30	20	5557	1919	118	7005
46.	Tirur	30	28	9918	1913	154	12468
47.	Ernad	30	28	13565	2012	137	17931
Malappuram District		120	115	35303	1975	72	45805
48.	Kozhikode	30	27	5430	1578	122	5629
49.	Quilandy	30	28	4105	1356	142	3657
50.	Badagara	24	22	1751	1459	84	1768
Kozhikode District		84	77	11286	1479	79	10964
51.	Vythiri	30	30	8387	3150	182	17356
52.	Sultan's Battery	30	28	6174	2865	210	11623
53.	Mananthavady	30	30	9295	3128	268	19105
Wynad District		90	88	23856	3068	134	48084

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
54.	Tellichery	35	32	3350	1435	59	3159
55.	Cannanore	24	24	3100	1347	218	2744
56.	Taliparamba	35	35	3513	2305	161	5321
57.	Hosdurg	30	29	2872	2304	171	4348
58.	Kasargode	30	28	4438	2274	145	6631
Cannanore District		154	148	17273	1956	70	22203
State		1560	1497	324560	2442	53	520622

TABLE 3.1

**Taluk-wise Estimates of Area, Mean Yield Production of Rice—
Summer 1984 (All varieties)**

Sl. No.	Taluk and District	No. of experiments	planned conducted	Area (in Ha.)	Mean Yield of dry paddy (Kg./Ha.)	Standard error	Production (in tonnes)
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
1.	Neyyattinkaa	12	10	161	1900	284	201
2.	Trivandrum	12	12	175	1261	281	145
3.	Nedumangp	12	12	15	935	224	9
4.	Chirayinkil	12	12	17	1535	339	17
Trivandrum District		48	46	368	1539	183	372
5.	Quilon	12	12	76	713	20	35
6.	Kottarakara	6	6	43	1034	..	30
7.	Kunnathur	6	6	86	651	160	37
8.	Pathanapuram	..	..	18	1034	..	13
9.	Pathanamthitta	12	11	183	1040	2	125
10.	Karunagappally	2	2	4	1361	..	4
Quilon District		38	37	410	906	33	244

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
11.	Karthikappally	30	30	3474	3748	196	8555
12.	Mavelikkara	24	20	4222	4199	682	11647
13.	Chengannur	20	19	1089	3136	388	2244
14.	Thiruvalla	24	22	2762	4303	255	7808
15.	Kuttanad	30	27	15228	3581	237	35828
16.	Ambalapuzha	12	11	1896	3794	589	4726
17.	Shertallay	..	..	..	..	..	..
Alleppey District		140	129	28671	3759	170	70808
18.	Changanacherry	30	29	2219	3061	223	4463
19.	Kanjirappally	..	..	..	..	..	..
20.	Kottayam	30	30	4922	2716	184	8782
21.	Vaikom	12	9	19	1748	..	22
22.	Meenachil	12	6	152	3745	433	374
Kottayam District		84	74	7312	2840	142	13641
23.	Peermade	..	..	..	..	..	..
24.	Devikolam	..	..	118	1530	..	119
25.	Udumbanchola	..	..	126	1534	..	127
26.	Thodupuzha	..	..	43	1522	..	43
Idukki District		..	..	287	1533	..	289
27.	Kothamangalam	20	20	523	2229	103	766
28.	Muvattupuzha	24	24	1256	2758	115	2276
29.	Cochin	..	..	..	..	..	..
30.	Kanayannur	20	20	546	2771	63	994
31.	Kunnathunadu	30	30	5335	1833	93	6426
32.	Alwaye	30	30	5048	2224	50	7377
33.	Parur	24	11	1294	2654	257	2256
Ernakulam District		148	135	14002	2184	48	20095
34.	Cranganore	10	10	61	1447	236	58
35.	Mukundapuram	30	28	6440	2167	190	9167
36.	Trichur	30	29	8122	3138	224	16744
37.	Thalappally	24	23	1494	2316	248	2273
38.	Chowghat	20	20	1134	2727	336	2032
Trichur District		114	110	17251	2671	131	30274

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
39.	Chittur	24	24	863	1889	332	1071
40.	Alathur	..	..	55	1605	..	58
41.	Palghat	12	12	190	1746	229	218
42.	Ottappalam	12	12	632	1994	152	828
43.	Mannarghat	20	19	707	1819	187	845
	Palghat District	68	67	2447	1878	136	3020
44.	Perinthalmanna	20	20	572	4657	139	1750
45.	Ponnani	24	24	2428	2447	259	3903
46.	Trirur	24	19	1891	2191	29	2722
47.	Ernad	12	11	776	1589	347	810
	Malappuram District	80	74	5667	2467	122	9185
48.	Kozhikode	20	17	860	1180	175	620
49.	Quilandy	30	26	1239	1466	126	1193
50.	Badagara	12	11	153	1373	109	138
	Kozhikode District	62	54	2192	1355	94	1951
51.	Vythiri	24	22	1062	3390	185	2365
52.	Sultan Battery	24	24	2578	3028	249	5128
53.	Mananthavady	30	30	3075	3058	196	6178
	Wynad District	78	76	6715	3099	134	13671
54.	Tellicherry	29	24	402	1363	497	360
55.	Cannanore	24	24	34	1197	152	27
56.	Taliparamba	29	29	186	1628	165	199
57.	Hosdurg	30	28	767	2203	183	1110
58.	Kasargode	30	30	1032	2345	134	1590
	Cannanore District	142	135	2421	2066	116	3286
	State	1002	937	87743	2894	65	166836

TABLE 1.2

Taluk-wise Estimates of Mean yield of dry paddy (kg./Ha.) during Autumn season from 1978 to 1983

Sl. No.	Taluk and District	1978	1979	1980	1981	1982	1983
1.	Neyyattinkara	2759	2594	2172	2312	2640	2671
2.	Trivandrum	2466	2409	2385	2075	2500	2214

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
3.	Nedumangad	2042	1938	2150	2123	2093	2201
4.	Chirayinkil	2668	2839	2318	2005	2497	2255
	Trivandrum District	2481	2269	2248	2129	2419	2338
5.	Quilon	2206	2742	1982	1680	1858	1768
5.	Kottarakara	2835	2367	2496	2844	2883	2387
7.	Kunnathur	2100	2478	2062	2743	2659	1681
8.	Pathanapuram	2627	2436	2960	2888	3525	3239
9.	Pathanamthitta	2765	3032	3029	2600	2820	3174
10.	Karunagappally	2033	1546	2792	1612	2643	2410
	Quilon District	2424	2224	2506	2425	2715	2344
11.	Karthigappally	1735	2634	2414	2236	1971	2822
12.	Mavelikkara	2012	2205	2261	1669	2090	2522
13.	Chengannur	2434	2591	2640	1903	2872	2927
14.	Thiruvalla	1625	1805	1695	1817	2577	2550
15.	Kuttanad	2136	3838	4199	3543	2902	2238
16.	Ambalapuzha	1221	400	699	1988	630	3593
17.	Shertallay	1627	806	1010	1695	1140	1214
	Alleppey District	1954	2481	2589	2403	2153	2464
18.	Changanacherry	2348	2591	2103	2108	3443	2708
19.	Kanjirappally	2701	4001	3643	3475	2854	3905
20.	Kottayam	2913	3137	2447	3421	3361	3980
21.	Vaikom	2605	2293	3042	3075	3401	3314
22.	Meenachil	2573	2864	2794	2205	2888	2488
	Kottayam District	2678	2808	2630	2967	3300	3391
23.	Peermade	..	..	2304	2664	3044	..
24.	Devikolam	2791	3434	2389	2916	4498	2180
25.	Udumbanchola	2588	3434	2304	2828	2995	..
26.	Thodupuzha	2588	2811	2276	2532	3157	2712
	Idukki District	2599	2899	2304	2649	3603	2529
27.	Kothamangalam	2189	2348	2218	2308	2621	2619
28.	Muvattupuzha	2434	2696	2738	2819	3258	2998
29.	Cochin	2397	1830	1676	2262	2453	1844
30.	Kanayannur	1882	1883	1863	1553	1593	2235
31.	Kunnathunad	2476	2139	1946	2089	2371	1885
32.	Alwaye	2673	2307	2039	2148	2620	2404
33.	Parur	2796	2899	2288	2041	2248	1169
	Ernakulam District	2437	2204	2107	2169	2485	2172

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
34.	Cranganore	678	597	826	825	1420	905
35.	Mukundapuram	1907	1924	1613	1356	2135	2174
36.	Trichur	2205	1804	1673	1992	2359	2392
37.	Thalappally	2007	1956	2220	2000	1913	2173
38.	Chowghat	1040	1604	1880	1517	1066	1811
39.	Trichur District	1903	1860	1855	1719	1966	2144
39.	Chittur	3893	4246	3922	4572	4549	3791
40.	Alathur	3585	4036	3426	3841	4150	3748
41.	Palghat	3779	3971	3749	3503	3933	2956
42.	Ottappalam	2046	2152	2069	2135	2079	1989
43.	Mannarghat	2308	2348	2447	2157	2035	1836
	Palghat District	3235	3481	3232	3440	3560	3040
44.	Perinthalmanna	2585	1997	1935	2101	1909	1883
45.	Ponnani	1931	2217	2128	1694	2053	1912
46.	Tirur	1687	1598	1715	1563	1444	1729
47.	Ernad	2159	2295	1941	1871	1636	1619
	Malappuram District	2103	2041	1898	1820	1687	1726
48.	Kozhikode	1174	1438	1222	1574	1380	1490
49.	Quilandy	1004	1270	1299	1270	1315	1393
50.	Badagara	1145	1167	1465	1157	1584	1242
	South Wynad	.	1169	1297	1286	.	.
	Kozhikode District	1142	1329	1297	1378	1405	1406
51.	Wythiri	.	..	..	..	1377	..
52.	Sultan Battery	.	..	..	..	.	.
53.	Mananthavady	.	..	..	..	1377	..
	Wynad District	.	..	..	..	.	.
54.	North Wynad	.	1823	1619	1286	.	.
54.	Tellicherry	1549	1823	1619	1887	1954	1634
55.	Cannanore	1981	1737	1768	2179	2191	1926
56.	Taliparamba	1429	2001	1991	1508	1800	2041
57.	Hosdurg	1635	1926	2116	2339	2326	2205
58.	Kasargode	2085	2251	2427	2100	2112	2213
	Cannanore District	1744	1970	2020	1989	2071	2027
	State	2391	2481	2413	2442	2571	2417

TABLE 2.2

**Taluk-wise Estimates of Mean Yield of dry Paddy (kg./Ha.)
during Winter Season from 1979 to 1984**

<i>Sl. No.</i>	<i>Taluk and District</i>	1979	1980	1981	1982	1983	1984
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
1	Neyyattinkara	1981	1816	2162	2148	2577	1681
2	Trivandrum	2257	1804	1941	2156	1933	1818
3	Nedumangad	2238	2207	2078	2568	2534	1536
4	Chirayinkil	2569	2552	2208	2433	2242	2056
Trivandrum District		2266	2115	2111	2344	2341	1783
5	Quilon	2509	2649	2098	1965	2224	1917
6	Kottarakkara	2859	3419	2888	3079	2502	2267
7	Kunnathur	2289	2633	2456	3043	2672	2030
8	Pathanapuram	2678	2998	2976	3141	3338	1863
9	Pathanamthitta	2103	2794	2401	2816	2787	2486
10	Karunagappally	2302	1775	2229	1562	2056	2173
Quilon District		2504	2741	2539	2631	2569	2115
11	Karthigappally	2012	2086	1843	1799	1582	3561
12	Mavelikkara	1761	2004	2181	1994	1975	1826
13	Chengannur	1795	2615	3018	3157	2934	2838
14	Thiruvalla	2951	2576	2483	3196	2522	2725
15	Kuttanad	3496	3506	3298	4384	4619	3128
16	Ambalapuzha	732	630	824	2502	537	1841
17	Shertallay	808	621	1169	741	901	919
Alleppey District		1851	1808	2204	2606	2449	2501
18	Chnganacherry	2583	2123	2525	4037	4270	3729
19	Kanjirappally	2247	2554	2848	2771	2273	2650
20	Kottayam	2081	2801	3108	2419	3146	3097

<i>Sl. No.</i>	<i>Taluk and District</i>	1979	1980	1981	1982	1983	1984
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
21	Vaikom	2039	2050	2558	2272	3463	2408
22	Meenachil	2545	2647	2692	2575	2761	3045
	Kottayam District	2176	2373	2724	2507	3288	2884
23	Peermade	2263	3392	3865	3962	2125	2113
24	Devicolam	2712	3427	3370	2971	3772	2395
25	Udumbanchola	3297	3072	3302	3279	3413	3313
26	Thodupuzha	2681	2772	2265	2612	3043	2552
	Idukki District	2837	2974	2791	2868	3297	2775
27	Kothamangalam	2147	2263	2310	2402	2403	2006
28	Muvattupuzha	2575	2541	2775	2735	2378	2617
29	Cochin	..	..	..	..	..	..
30	Kanayannur	1750	1763	1839	1585	1949	2300
31	Kunnathunad	2258	2335	2132	2413	2439	1619
32	Alwaye	2344	1750	2172	2081	2532	2137
33	Parur	2357	1686	1600	2511	1824	1089
	Ernakulam District	2289	2102	2190	2316	2354	1973
34	Cranganore	1470	1142	823	1663	1517	833
35	Mukundapuram	2048	2064	2117	1859	1896	2406
36	Trichur	2227	2176	1795	2452	2507	2415
37	Thalappally	2179	2143	2245	2390	2216	2261
38	Chowghat	911	1942	1063	2098	1343	1795
	Trichur District	2018	2070	1931	2193	2094	2255
39	Chittur	3043	3453	3081	3286	3322	3877
40	Alathur	3163	3061	2959	3883	3692	3646
41	Palghat	3481	3754	3465	2862	2443	3210
42	Ottappalam	2114	2242	2136	2274	2036	2165
43	Mannarghat	2252	2229	3798	2031	2466	1968
	Palghat District	2887	3038	2994	3069	2849	3150

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
44	Perinthalmanna	2185	1998	2158	2372	2310	2042
45	Ponnani	1902	1471	1891	1831	1899	1919
46	Tirur	1595	1565	2070	2019	1820	1913
47	Ernad	2222	2217	2227	2401	2136	2012
<hr/>							
Malappuram District		2010	1921	2136	2219	2043	1975
<hr/>							
48	Kozhikode	1762	1511	1683	1653	2029	1578
49	Quilandy	1490	1062	1383	1585	1734	1356
50	Badagara	1151	1219	1365	1333	1339	1459
51	South Wynad	2886	2621	2300	..	..	..
<hr/>							
Kozhikode District		2208	1931	1901	1565	1793	1479
<hr/>							
52	Vythiri	..	..	..	2864	2574	3150
53	Sulthan's Battery	..	..	..	2642	2702	2865
54	Mananthavady	..	..	..	2963	2361	3128
<hr/>							
Wynad District		..	..	..	2824	2536	3068
<hr/>							
North Wynad		1905	2617	2132	..	..	..
55	Tellicherry	1643	1688	1927	1446	1786	1435
56	Cannanore	1194	1710	1783	1839	1877	1347
57	Taliparamba	1551	2290	1688	1977	2274	2305
58	Hosdurg	1896	1828	1916	2384	2034	2304
59	Kasargode	2298	2312	2059	2348	2388	2274
<hr/>							
Cannanore District		2038	2213	1962	2006	2108	1956
<hr/>							
State		2333	2359	2357	2518	2444	2442

TABLE 3.2

**Taluk-wise Estimates of Mean Yield of Dry Paddy (kg./Ha.)
during Summer Season from 1979 to 1984**

<i>Sl. No.</i>	<i>Taluk and District</i>	1979	1980	1981	1982	1983	1984
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
1	Neyyattinkara	1184	1636	1423	1872	1587	1900
2	Trivandrum	1565	1422	1552	1319	2196	1261
3	Nedumangad	1186	1048	1074	1770	2214	935
4	Chirayinkil	945	777	1147	1660	710	1535
Trivandrum District		1251	1296	1305	1695	1914	1539
5	Quilon	1387	1447	1174	1716	961	713
6	Kottarakkara	1524	788	1894	1740	1450	1034
7	Kunnathur	1432	736	1360	1944	895	651
8	Pathanapuram	2087	1214	1011	1331	3213	1034
9	Pathanamthitta	2087	2777	1011	1772	3460	1046
10	Karunagappally	304	1162	750	1711	1893	1361
Quilon District		1035	1505	1078	1751	2077	906
11	Karthigappally	4655	3089	3005	4296	3242	3748
12	Mavelikkara	3625	4166	3618	3650	3466	4199
13	Ghengannur	4041	4014	3895	3213	3737	3136
14	Thiruvalla	3899	3025	3188	4423	4213	4303
15	Kuttanad	3950	4328	3268	4050	3856	3581
16	Ambalapuzha	4116	3494	2858	3267	3429	3794
17	Shertallay	..	..	..	..	..	..
Alleppey District		4031	4014	3284	4003	3763	3759
18	Changanacherry	5140	3800	3420	3572	5725	3061
19	Kanjirappally	..	..	..	..	..	..
20	Kottayam	2719	3349	3096	3084	4805	2716

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
21.	Vaikom	..	2616	2389	2207	2506	1748
22.	Meenachil	..	3078	2388	3144	3825	3745
	Kottayam District	3297	3439	3148	3192	5138	2840
23.	Peermade	1806	2215	..	..	..	..
24.	Devicolam	1806	2215	1536	1558	1558	1530
25.	Udumbanchola	..	..	1536	1558	1530	1534
26.	Thodupuzha	..	..	1536	1558	1530	1522
	Idukki District	1806	2215	1536	1557	1532	1533
27.	Kothamangalam	1805	2244	1565	2258	1567	2229
28.	Muvattupuzha	1806	2215	1536	1892	2199	2758
29.	Cochin	..	..	..	..	..	..
30.	Kanayannur	2048	1886	2548	2397	556	2771
31.	Kunnathunad	1809	2092	2198	2429	1675	1833
32.	Alwaye	2003	2708	2103	1966	2700	2224
33.	Parur	2201	2816	2594	2657	1649	2564
	Ernakulam District	1952	2414	2148	2266	2141	2184
34.	Cranganore	1496	1692	2754	893	2352	1447
35.	Mukundapuram	2176	2795	2725	2014	2321	2167
36.	Trichur	2262	2810	2432	2223	2622	3138
37.	Thalappally	2133	2367	3021	2901	2181	2316
38.	Chowghat	2369	3050	2607	3702	2759	2727
	Trichur District	2207	2763	2694	2335	2503	2671
39.	Chittur	2542	3041	2542	2925	3298	1889
40.	Alathur	2327	2827	1852	3611	1593	1605
41.	Palghat	3040	2958	3192	3670	1640	1746
42.	Ottappalam	2014	2302	2243	1826	2556	1994
43.	Mannarghat	1164	2053	2337	2257	1903	1819
	Palghat District	2206	2611	2470	2591	2487	1878
44.	Perinthalmanna	2528	2153	1949	1990	1972	4657
45.	Ponnani	2669	3650	2891	2511	3673	2447
46.	Tirur	3097	2755	2554	2178	2750	2191
47.	Ernad	1611	1880	2024	1938	1219	1589
	Malappuram District	2731	2775	2481	2186	2729	2467

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
48.	Kozhikode	1872	2577	1985	1831	1424	1180
49.	Quilandy	1441	1336	2106	2205	1756	1466
50.	Badagara	2020	1285	1681	2425	1627	1373
	South Wynad	2522	1557	2252	.	.	.
	Kozhikode District	2208	1626	2172	2117	1624	1355
51.	Vythiri	..	..	..	3058	1518	3390
52.	Sultan's Battery	..	..	..	2032	2085	3028
53.	Mananthavady	..	..	..	3085	1900	3058
	Wynad District	..	..	..	2683	1921	3099
54.	North Wynad	3395	2712	2507	..	..	..
55.	Tellichery	1650	1403	2007	2029	991	1463
56.	Cannanore	1608	1584	2374	1590	1060	1197
57.	Taliparamba	2193	2011	1643	1628	1852	1628
58.	Hosdurg	2962	2334	1835	2121	1534	2203
59.	Kasargode	2666	2608	2382	2515	2190	2345
	Cannanore District	3182	2440	2220	2171	1772	2066
	State	2832	2971	2627	2837	2945	2894

TABLE 1.3

District-wise Estimated Area, Mean yield and production of high yielding and other varieties of paddy Autumn—1983

District State	High yielding varieties			Other varieties			All varieties		
	Area (Ha.)	Mean yield of dry paddy (kg./Ha.)	Production (tonnes)	Area (Hect.)	Mean yield of dry paddy (kg./Ha.)	Production (tonnes)	Area (Ha.)	Mean yield of dry paddy (kg./Ha.)	Production (tonnes)
Trivandrum	1298	2699	2302	11867	2299	17924	13165	2338	20226
Quilon	14035	2751	25370	9369	1735	10677	23404	2344	36047
Alleppey	13429	2807	24764	19164	2224	27997	32593	2464	52761
Kottayam	10696	3568	25075	2210	2534	3679	12906	3391	28754
Idukki	464	2972	906	3366	2468	5458	3830	2529	6364
Ernakulam	10726	2699	19018	25010	1946	31977	35736	2172	50995
Trichur	6908	2483	11269	31012	2068	42135	37920	2144	53404
Palghat	37436	3228	79398	50459	2901	96168	87895	3040	175566
Malappuram	2196	1758	2536	31583	1724	35765	33779	1726	38301
Wynad	..	..	..	..	..	..	..	..	..
Kozhikode	1256	1516	1251	8421	1389	7687	9677	1406	8938
Cannanore	3366	2870	6346	33512	1942	42756	36878	2027	49102
State	101810	2964	198235	225973	2170	322223	327783	2417	520458

TABLE 2.3

District-wise Estimated Area, Mean Yield and Production of high yielding and other varieties of paddy—Winter 1984

District State	High Yielding Varieties			Other varieties			All varieties		
	Area (Ha.)	Mean yield of dry paddy (kg./Ha.)	Production (tonnes)	Area (Ha.)	Mean yield of dry paddy (kg./Ha.)	Production (tonnes)	Area (Ha.)	Mean yield of dry paddy (Kg./Ha.)	Production (tonnes)
Trivandrum	679	2183	974	12867	1761	14890	13546	1783	15864
Quilon	1571	2471	3550	22495	2091	30896	24066	2115	33446
Alleppey	6722	3611	15447	11064	1827	13281	17786	2501	29228
Kottayam	11890	2955	23085	2693	2570	4547	14583	2384	27632
Idukki	674	3543	1569	3281	2617	5641	3955	2775	7210
Ernakulam	1312	2736	2358	35682	1945	45606	36994	1973	47964
Trichur	6137	2430	9796	42083	2230	61647	48220	2255	71443
Palghat	23311	3427	52481	54381	3031	108298	77692	3150	160779
Malappuram	2817	2102	3890	32486	1964	41915	35303	1975	45805
Wynad	4353	3056	8741	19503	3070	39343	23856	3068	48084
Kozhikode	622	2824	1154	10664	1400	9810	11286	1479	10964
Cannanore	1975	2762	3584	15298	1852	18619	17273	1956	22203
State	62063	3093	126129	262497	2287	394493	324560	2442	520622

TABLE 3.3

District-wise Estimated Area, Mean Yield and Production of high yielding and other varieties of paddy—Summer 1984

District/ State	High yielding varieties			Other varieties			All varieties		
	Area in Ha.	Mean yield and dry paddy (tonnes)	Production Area Ha.	Mean yield of dry paddy (tonnes)	Production (kg./Ha.)	Area (Ha.)	Mean yield of dry paddy (kg./Ha.)	Production (kg./Ha.)	Production (kg./Ha.)
Trivandrum	257	1362	230	111	1947	142	368	1539	372
Quilon	231	1041	158	179	731	86	410	906	244
Alleppey	22878	3878	58284	5793	3291	12524	28671	3759	70808
Kottayam	6885	2796	12647	427	3543	994	7312	2840	13641
Idukki	54	1558	55	233	1529	234	287	2533	289
Ernakulam	1515	2297	2286	12487	2171	17809	14002	2184	20995
Trichur	7887	3241	16793	9364	2191	13481	17251	2671	30274
Palghat	799	2254	1183	1648	1697	1837	2447	1878	3020
Malappuram	3302	2626	5696	2365	2245	3489	5667	2467	9185

Wynad	3163	3356	6975	3552	2869	6696	6715	3099	13671
Kozhikode	1075	1584	1119	1117	1134	832	2192	1355	1951
Cannanore	434	2197	622	1990	2038	2664	2421	2066	3286

State 1951 48477 3330 106048 39266 2356 60788 87743 2894 166836,

1951

1951

1951

1951

1951

1951

1951

1951

1951

1951

1951

1951

1951

TABLE I.4

DISTRICT-WISE YIELD FOR HIGH YIELDING AND OTHER VARIETIES OF PADDY ACCORDING
TO CULTURAL PRACTICES—AUTUMN 1983

Trichur	HYV	6	49.21	2776	
	Local	3	22.78	2664	
	Total	9	71.99	2808	
Palghat	HYV	7	88.93	4428	2
	Local	12	93.76	2724	7
	Total	19	182.69	3356	9

Malappuram

HYV	..	..	..	..	..
Local	..	..	..	..	..
Total	..	..	..	..	..

Kozhikode

HYV	..	..	..	..	..
Local	..	..	..	..	..
Total	..	..	..	..	..

Wayanad

HYV	..	..	..	..	..
Local	..	..	..	..	..
Total	..	..	..	..	..

No Autumn Paddy

Cannanore

HYV	..	..	..	..	..
Local	..	..	..	..	..
Total	..	..	..	..	..

State

HYV	60	501.61	2928	2	11.50
Local	102	678.53	2332	8	44.66
Total	162	1180.14	2552	10	56.16

HYV	..	..	..	..	..
Local	..	..	..	..	..
Total	..	..	..	..	..

Trichur	HYV	6	49.21	2776	30	219.68
	Local	3	22.78	2664	44	241.46
	Total	9	71.99	2908	74	461.14
Palghat	HYV	9	100.43	3892	41	376.94
	Local	19	132.21	2428	57	476.82
	Total	28	232.64	2900	98	853.76
Malappuram	HYV	..	..	..	17	104.28
	Local	..	..	..	87	426.96
	Total	..	..	..	104	531.24
Kozhikode	HYV	..	..	..	3	16.88
	Local	..	..	..	23	95.35
	Total	..	..	..	26	112.18
Wynad	HYV	..	..	..	No	Autumn Paddy
	Local	..	..	..	29	273.84
	Total	..	..	..	42	201.86
Cannanore	HYV	..	..	..	71	475.70
	Local	..	..	..
	Total	..	..	..
State	HYV	62	513.11	2900	408	3436.51
	Local	110	723.19	2304	549	3360.40
	Total	172	1236.30	2520	957	6796.91

Unirrigated (Contd.)

District	Other manured						Not Manured		
	No. of experiment	Field	Mean yield	No. of experiment	Field	Mean yield	No. of experiment	Field	Mean yield
(1)	(17)	(18)	(19)	(20)	(21)	(22)			
Trivandrum	HYV	..	..	..	..	..	1	7.80	2724
	Local	..	..	..	..	..	..	..	..
	Total	..	..	..	..	..	1	7.80	2724
Quilon	HYV	7	47.21	2412	..	..	4	15.25	1364
	Local	10	36.80	1316	..	..	4	15.25	1364
	Total	17	84.01	1768	..	..	4	15.25	1364
Alleppey	HYV	..	..	..	..	..	..	..	..
	Local	5	21.42	1456	..	..	7	20.53	996
	Total	5	21.42	1456	..	..	7	20.53	996
Kottayam	HYV	1	9.500	3500	..	..	..	..	..
	Local	2	8.130	1500	..	..	..	..	..
	Total	3	17.630	2168	..	..	..	..	..
Idukki	HYV	..	..	..	..	..	2	8.35	1392
	Local	..	..	..	..	..	2	8.35	1392
	Total	..	..	..	..	..	2	8.35	1392
Ernakulam	HYV	..	..	..	..	..	1	5.00	1692
	Local	9	45.65	1716	..	..	51	217.52	1444
	Total	9	45.65	1716	..	..	52	222.52	1448

					No	Autumn	Paddy
Trichur	HYV	5	20.79	1460	3	11.90	1392
	Local	35	158.61	1588	9	46.89	1828
	Total	40	179.40	1576	12	58.79	1720
Palghat	HYV	22	99.95	1584	4	14.09	1228
	Local	22	99.95	1584	4	14.09	1228
	Total						
Malappuram	HYV	1	5.500	1958	6	21.91	1304
	Local	14	62.31	1592	6	21.91	1304
	Total	15	67.81	1616			
Kozhikode	HYV	8	39.73	1716	3	15.43	1776
	Local	45	169.98	1304	3	15.43	1776
	Total	53	209.71	1368			
Waynad	HYV						
	Local						
	Total						
Cannanore	HYV	11	54.09	1744	19	85.93	1600
	Local	70	425.30	2156	19	85.93	1600
	Total	81	479.39	2100			
State	HYV	33	176.82	1880	5	24.70	1732
	Local	212	1028.15	1700	105	445.90	1488
	Total	245	1204.97	1724	110	470.60	1500

	Unirrigated (Contd.)						No. of experiment	Yield	Mean yield	No. of experiment	Yield	Mean yield						
	Treated with pesticides/insecticides			Not treated with insecticides/pesticides														
	Total	Total	Total	Total	Total	Total												
(1)	(23)	(24)	(25)	(26)	(27)	(28)	(29)	(30)	(31)	(29)	(30)	(31)						
Trivandrum	HYV	16	124.50	2716	9	68.11	2644	13	103.97	2792								
	Local	62	386.61	2180	25	167.65	2344	66	433.92	2296								
	Total	78	511.11	2288	34	235.76	2420	79	537.89	2380								
Quilon	HYV	95	744.71	2804	16	110.28	2464	82	657.46	2868								
	Local	72	352.70	1752	13	78.75	2168	59	273.95	1660								
	Total	167	1097.41	2348	29	189.03	2332	141	931.41	2364								
Alleppey	HYV	85	744.84	2980	42	386.02	3124	43	358.82	2836								
	Local	88	522.81	2136	32	275.64	2928	56	277.17	1684								
	Total	173	1297.65	2552	74	661.66	3040	99	635.99	2184								
Kottayam	HYV	70	628.08	3304	48	408.69	3136	23	224.24	3592								
	Local	36	263.92	2700	24	185.14	2840	12	78.78	2420								
	Total	106	892.00	3100	72	593.83	3040	35	303.02	3192								
Idukki	HYV	4	32.75	2724	3	25.67	2848	2	18.80	3008								
	Local	22	160.38	2428	9	63.28	2340	22	162.90	2464								
	Total	26	193.13	2472	12	83.95	2468	24	180.98	2508								
Ernakulam	HYV	28	239.57	2896	45	367.59	2764	19	148.99	2652								
	Local	106	575.18	1836	57	352.39	2092	99	510.23	1744								
	Total	134	814.75	2056	102	719.98	23.88	118	659.22	1892								

Trichur	HYV	38	252.37	2328	24	215.46	3152	20	86.12	1512
	Local	88	446.96	1784	25	153.76	2156	66	315.98	1680
	Total	126	699.33	1948	49	369.22	2644	86	402.10	1640

Palghat	HYV	41	376.94	3204	6	35.24	2048	44	442.13	3504
	Local	83	590.36	2484	10	78.61	2740	92	644.46	2444
	Total	124	967.80	2720	16	113.85	2484	136	1006.59	2783

Malappuram	HYV	18	109.78	2180	2	10.700	1912	16	99.08	2912
	Local	107	511.18	1708.	6	23.870	1424	101	487.31	1724
	Total	125	620.96	1776	8	34.570	1544	117	586.39	1792

Kozhikode	HYV	11	56.56	1368	5	22.52	1800	6	34.04	1956
	Local	71	289.76	1776	1	4.01	1384	70	276.75	1364
	Total	82	337.32	1420	6	26.53	1524	76	310.79	1412

Wayanad	HYV	Local	Total		No Autumn Paddy					

Cannanore	HYV	40	327.93	2908	17.37	2052	37	310.56	2972
	Local	131	713.09	1928	45.39	2684	125	667.70	1892
	Total	171	1041.02	2160	62.76	2472	162	978.26	2140

State	HYV	446	3638.03	2860	1667.65	2890	305	2483.49	2852	
	Local	866	4834.45	1956	208	1428.49	2408	768	4129.15	1884
	Total	1312	8472.48	2264	411	3096.14	2640	1073	612.64	2160

TABLE 2.4

District-wise yield for High Yielding and other Varieties of Paddy according to cultural practices—Winter 1984

District	Irrigated												
	Chemically Manured			Other Manured			Not Manured			Total			
	No. of experiments	Yield	Mean yield	No. of experiments	Yield	Mean yield	No. of experiments	Yield	Mean yield	No. of experiments	Yield	Mean yield	
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	
Trivandrum	HYV	6	31.86	1928	..	..	..	..	..	6	31.86	1928
	Local	67	327.41	1775	..	..	..	..	..	67	327.41	1775
	Total	73	359.27	1787	..	..	..	..	..	73	359.27	1787
Quilon	HYV	15	90.47	2123	2	17.58	3094	1	10.75	3784	18	118.80	2323
	Local	26	146.97	1990	2	17.58	3094	1	10.75	3784	26	146.97	1990
	Total	41	237.44	2038	..	..	..	..	..	44	265.77	2126
Alleppey	HYV	31	343.94	3967	..	..	..	..	..	31	343.94	3967
	Local	14	81.47	2081	..	..	..	..	..	14	81.47	2081
	Total	45	425.41	3380	..	..	..	..	..	45	425.41	3380
Kottayam	HYV	35	293.73	3085	..	..	..	..	..	35	293.73	3085
	Local	14	90.33	2372	..	..	..	..	..	14	90.33	2372
	Total	49	384.06	2881	..	..	..	..	..	49	384.06	2881
Idukki	HYV	2	23.60	4054	..	..	1	8.00	2749	3	31.60	3619
	Local	25	170.00	2336	..	..	1	13.65	4690	26	183.65	2427
	Total	27	193.60	2464	..	..	2	21.65	3719	29	215.25	2550
Ernakulam	HYV	11	83.12	2611	..	..	..	..	..	11	83.12	2611
	Local	111	684.25	2130	4	20.05	1732	1	6.20	2143	116	710.50	2117
	Total	122	767.37	2174	4	20.05	1732	1	6.20	2143	127	799.62	2160

District	Unirrigated						Irrigated					
	Chemically manured			Other manured			Chemically manured			Other manured		
	No. of experiments	Field	Mean yield	No. of experiments	Field	Mean yield	No. of experiments	Field	Mean yield	No. of experiments	Field	Mean yield
(1)	(14)	(15)	(16)	(17)	(18)	(19)	(20)	(21)	(22)			
Trivandrum	HYV	4	22.79	2069	..	..	..	..	..	..	..	..
	Local	40	176.64	1604	..	..	..	..	..	..	..	..
	Total	44	199.43	1646	..	..	..	..	..	..	..	..
Quilon	HYV	28	168.12	2113	1	2.55	898	..	..	..	..	..
	Local	83	519.00	2201	7	36.26	1823	4	7.98	..	..	702
	Total	111	687.12	2179	8	38.81	1708	4	7.98	..	..	702
Alleppey	HYV	31	261.10	3012	..	..	..	..	..	..	..	..
	Local	62	326.45	1883	16	44.31	990	4	6.35	..	..	5683
	Total	93	587.55	2259	16	44.31	990	4	6.35	..	..	5688
Kottayam	HYV	31	265.92	3153	..	..	..	..	..	..	..	..
	Local	11	89.81	3001	..	..	..	..	..	..	..	..
	Total	42	355.73	3113	..	..	..	..	..	..	..	..
Idukki	HYV	1	6.20	2130	..	..	..	..	..	1	10.50	3608
	Local	17	112.14	2267	..	..	..	..	..	4	35.37	3038
	Total	18	118.34	2259	..	..	..	..	..	5	45.87	3152
Ernakulam	HYV	3	14.10	1624	..	..	..	..	..	..	..	..
	Local	58	272.25	1622	7	20.30	1002	..	..	..	..	..
	Total	61	286.35	1622	7	20.30	1002	..	..	..	..	..

Trichur	HYV	5	33.45	2416	1	0.25	90	..	20.06	1811
	Local	30	128.05	1542	13	43.16	1199	4	20.06	1811
	Total	35	161.50	1667	14	43.41	1120	4	20.06	1811
Palghat	HYV	2	15.85	2796	7	38.51	1941	..	11.60	2046
	Local	17	101.66	2110	7	38.51	1941	2	11.60	2046
	Total	19	117.51	2182	..	..	..	..	..	..
Malappuram	HYV	5	18.40	1328	3	26.60	3196	2	9.63	1744
	Local	29	161.83	2012	16	82.10	1848	2	6.57	1184
	Total	34	180.23	1912	19	108.70	2060	4	16.25	1464
Kozhikode	HYV	6	36.31	2181	..	..	..	..	..	..
	Local	24	107.43	1613	36	126.62	1269	6	20.49	1232
	Total	30	143.74	1729	36	126.62	1269	6	20.49	1232
Wayanad	HYV	16	131.89	3126	8	59.69	2829	..	22.33	2822
	Local	22	175.40	3023	32	260.45	3086	3	22.33	2822
	Total	38	307.29	3066	40	320.14	3035	3	22.33	2822
Cannanore	HYV	2	13.46	2458	7	15.28	828	..	..	..
	Local	22	89.11	1479	..	..	..	..	..	..
	Total	24	102.57	1561	7	15.28	828	5	18.16	1326
State	HYV	134	987.59	2640	13	89.09	2456	3	20.18	2412
	Local	415	2259.77	1952	141	666.99	1696	34	148.91	1568
	Total	549	3247.36	2120	154	756.08	1760	37	169.09	1636

37|1277|MC.

District	Unirrigated						Treated with insecticides pesticides						Not treated with insecticides pesticides							
	Total			Treated with insecticides pesticides			Not treated with insecticides pesticides			Total			Treated with insecticides pesticides			Not treated with insecticides pesticides				
	No. of experiment	Yield	Mean yield	No. of experiment	Yield	Mean yield	No. of experiment	Yield	Mean yield	No. of experiment	Yield	Mean yield	No. of experiment	Yield	Mean yield	No. of experiment	Yield	Mean yield		
(1)	(23)	(24)	(25)	(26)	(27)	(28)	(29)	(30)	(31)	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)		
Trivandrum	HYV	4	22.79	2069	7	40.35	2093	3	14.30	Local	40	176.64	212.89	63	291.16	1731	44	199.43	1646	
	Local	40	176.64	1604	44	212.89	1757	63	291.16	Total	44	199.43	253.24	1803	66	305.46	1679		1681	
Quilon	HYV	29	170.67	2071	25	154.74	2179	22	134.73	Local	94	563.24	149.78	95	560.43	2156	123	733.91	2100	
	Local	94	563.24	2109	25	149.78	2109	117	695.16	Total	123	733.91	304.52	2144		2076		2091		
Alleppey	HYV	31	261.10	3012	43	470.23	3910	19	134.81	Local	82	377.11	150.12	68	308.46	2537	113	638.21	2020	
	Local	82	377.11	1645	28	168.03	1917			Total	113	638.21	620.35	3124	87	443.27	1622		1822	
Kottayam	HYV	31	265.92	3153	60	507.44	3109	6	52.21	Local	11	89.81	23	2685	2	12.11	3199	42	355.73	3001
	Local	11	89.81	3001	23	168.03	2991	8	64.32	Total	42	355.73	83	675.47		2225			2955	
Idukki	HYV	2	16.70	2869	4	37.80	3247	1	10.50	Local	21	147.51	38	2402	9	65.50	3608	23	164.21	2413
	Local	21	147.51	2453	42	303.46	2482	10	76.00	Total	23	164.21			10	2501		2611		
Ernakulam	HYV	3	14.10	1624	12	90.22	2598	-2	7.00	Local	65	292.55	118	2146	63	270.42	1210	68	306.65	1558
	Local	65	292.55	1555	118	732.63	2146			Total	68	306.65	130	822.85	2187	65	277.42	1483		1475

Trichur	HYV	6	33.70	2029	17	116.07	2466	3	12.90	1553
	Local	47	191.27	1470	57	336.74	2134	63	311.99	1789
	Total	53	224.97	1533	74	452.81	2210	66	324.89	1778
Palghat	HYV	2	15.86	2796	24	216.84	3188	17	155.88	3236
	Local	26	151.77	2108	37	324.06	3090	71	552.55	2746
	Total	28	167.63	2112	61	540.90	3128	88	708.43	2840
Malappuram	HYV	10	54.68	3128	12	73.20	2200	2	12.28	2212
	Local	47	250.50	1921	61	341.47	2020	40	207.85	1876
	Total	57	305.18	1930	73	414.67	2048	42	220.13	1888
Kozhikode	HYV	6	36.31	2183	5	35.74	1391	2	7.90	1333
	Local	66	254.54	1391	12	56.34	1694	58	214.22	1332
	Total	72	290.85	1457	17	92.08	1954	60	222.12	1336
Wayanad	HYV	24	191.58	2880	8	72.13	3253	17	129.53	2749
	Local	57	458.18	3048	18	155.36	3273	45	350.81	2956
	Total	81	649.76	3042	26	227.49	3318	62	480.34	2938
Cannanore	HYV	2	13.46	2458	28	198.33	2587	5	46.37	3387
	Local	34	122.55	1316	64	347.32	1982	51	221.81	1588
	Total	36	136.01	1380	92	545.65	2166	56	268.18	1749
State	HYV	150	1096.86	2620	245	2013.08	2948	99	718.31	2600
	Local	590	3075.67	1868	525	3240.40	2212	628	3367.31	1920
	Total	740	4172.53	2021	770	5253.48	2444	727	4085.62	2016

TABLE 3.4

DISTRICT-WISE YIELD FOR HIGH YIELDING AND OTHER VARIETIES OF PADDY ACCORDING TO
CULTURAL PRACTICES—SUMMER 1984

District	Irrigated									
	Chemically manured			Other manured			Not manured			
	No. of experiment	Yield	Mean yield	No. of experiments	Yield	Mean yield	No. of experiments	Yield	Mean yield	
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	
Trivandrum	HYV	21	77.25	1298	..	..	..	..	..	..
	Local	12	53.71	1579	..	..	..	..	..	..
	Total	33	130.96	1400	..	..	..	..	..	..
Quilon	HYV	2	5.94	1034	..	..	..	..	..	..
	Local	2	5.94	1034	..	..	..	..	..	..
	Total	..	..	..	..	..	..	..	..	..
Alleppey	HYV	44	535.18	4354	..	..	..	..	..	..
	Local	1	3.70	1325	..	14.05	5030	..	..	..
	Total	45	538.88	4287	1	14.05	5030	..	..	..
Kottayam	HYV	14	134.56	3545	..	..	..	..	..	..
	Local	..	..	..	..	..	..	..	..	..
	Total	14	134.56	3545	..	..	..	..	..	..
Idukki	HYV	..	..	..	..	..	..	..	..	..
	Local	..	..	..	..	..	..	..	..	..
	Total	..	..	..	..	..	..	..	..	..
Ernakulam	HYV	22	147.28	2429	..	19.75	2388	..	7.90	2866
	Local	108	690.05	2318	3	19.75	2388	1	7.90	2866
	Total	130	837.33	2337	3	19.75	2388	1	7.90	2866

Trichur	HYV	42	349.90	3046	5	20.84	1524	1	1.60	580
	Local	59	357.56	2216	5	20.84	1524	1	4.48	1638
	Total	101	707.46	2561	5	20.84	1524	2	6.08	1111
Palghat	HYV	24	149.62	2212	9	33.47	1320	..	..	..
	Local	28	136.84	1736	9	33.47	1320	..	..	..
	Total	52	286.46	1956	9	33.47	1320	..	..	..
Malappuram	HYV	31	108.43	1284	11	36.61	1224	..	..	..
	Local	29	197.04	2492	11	36.61	1224	..	..	..
	Total	60	305.47	1868	11	36.61	1224	..	..	..
Kozhikode	HYV	18	73.87	1504	5	27.36	2008	..	..	..
	Local	19	59.25	1144	4	13.92	1276	1	2.67	980
	Total	37	133.12	1320	9	41.28	1684	1	2.67	980
Wayanad	HYV	28	254.30	3444	4	33.20	3148	6	23.62	1496
	Local	24	215.52	3404	4	33.20	3148	6	23.62	1496
	Total	52	469.82	3428	4	33.20	3148	6	23.62	1496
Cannanore	HYV	35	199.35	2128	..	25.94	1212	..	..	..
	Local	62	324.09	1952	8	25.94	1212	1	2.15	804
	Total	97	523.44	2052	8	25.94	1212	1	2.15	804
Total	HYV	281	2035.68	2624	5	27.36	1984	1	1.60	580
	Local	342	2037.76	2160	45	197.78	1596	10	40.82	1480
	Total	623	4073.44	2372	50	225.14	1632	11	42.42	1400

District	Irrigated			Unirrigated		
	Total		Chemically manured			
	No. of experiments	Yield	Mean yield	No. of experiments	Yield	Mean yield
(1)	(11)	(12)	(13)	(14)	(14)	(16)
Trivandrum	HYV	21	77.25	1298	11	37.65
	Local	12	53.71	1579	2	8.70
	Total	33	130.96	1400	13	46.35
Quilon	HYV	2	5.94	1034	6	15.98
	Local	2	5.94	1034	28	60.72
	Total				34	76.70
Alleppey	HYV	44	535.18	4354	67	681.46
	Local	2	17.75	3177	16	144.97
	Total	46	552.93	4303	83	826.43
Kottayam	HYV	14	134.56	3545	47	352.49
	Local	14	134.56	3545	10	81.90
	Total				57	434.39
Idukki	HYV	Nil				
Ernakulam	HYV	22	147.28	2429	2325	9.00
	Local	112	717.70	2325	2342	9.00
	Total	134	864.98			

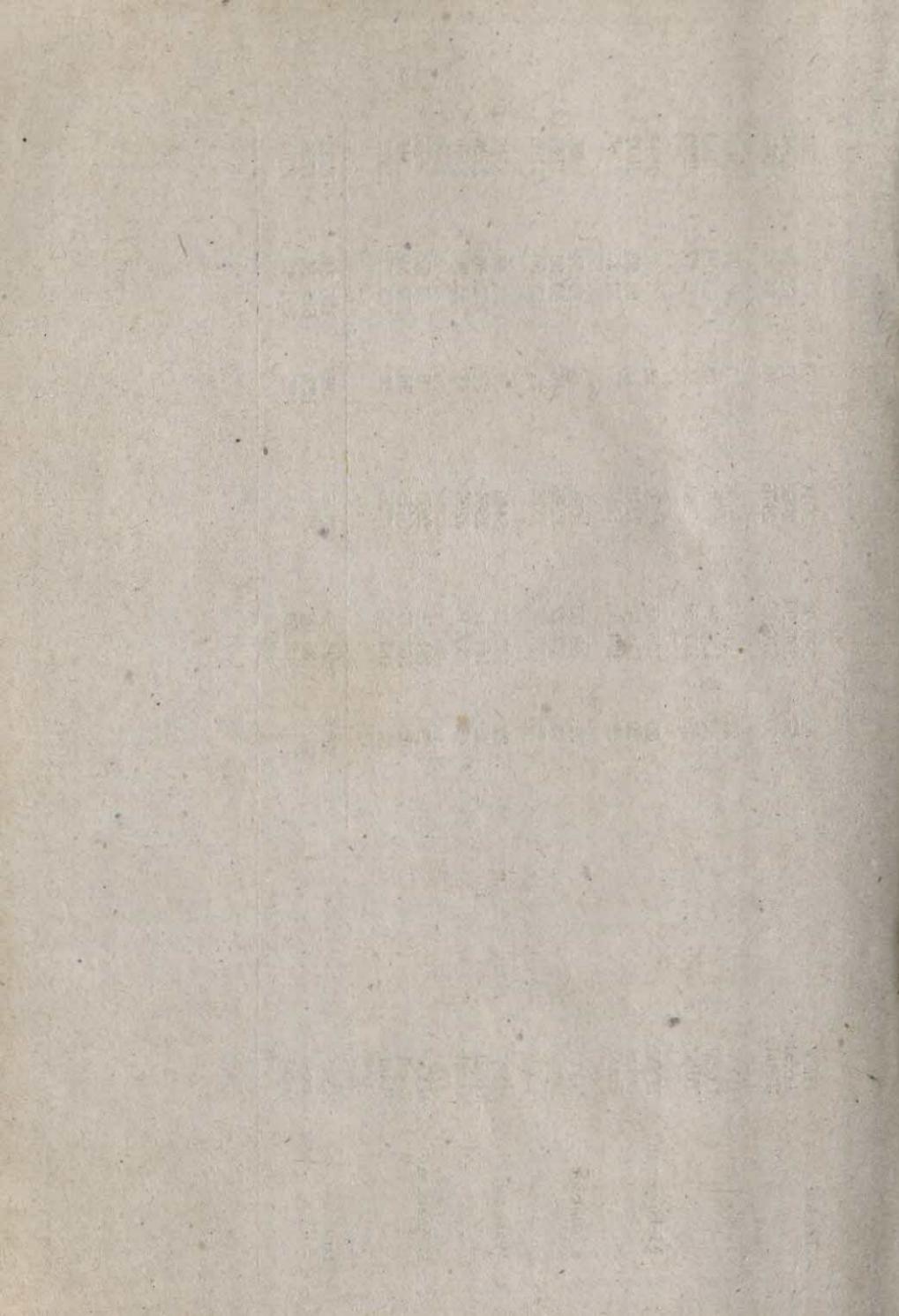
Trichur	HYV	43	351.50	2988	2	6.70	1224
	Local	65	382.88	2152	2	6.70	1224
	Total	108	734.38	2488	2	6.70	1224
Palghat	HYV	24	149.62	2212	2	12.41	2204
	Local	37	170.31	1632	4	20.93	1856
	Total	61	319.93	1860	6	33.34	1972
Malappuram	HYV	31	108.43	1284	1	4.55	1672
	Local	40	233.65	2144	1	4.55	1672
	Total	71	342.08	1768	1	4.55	1672
Kozhikode	HYV	23	101.23	1612	2	6.01	1104
	Local	24	75.84	1160	2	6.54	1200
	Total	47	177.07	1384	4	12.55	1152
Wayanad	HYV	28	254.30	3444	3	28.57	3608
	Local	34	272.34	3036	5	32.15	2440
	Total	62	526.64	3220	8	60.72	2880
Cannanore	HYV	35	199.35	2128	26	84.71	1216
	Local	71	352.18	1852	26	84.71	1216
	Total	106	551.53	1944	26	84.71	1216
Total	HYV	287	2064.64	2604	139	1139.12	2972
	Local	397	2276.36	2076	96	456.32	1720
	Total	684	4341.00	2300	235	1595.44	2460

Irrigated (Contd.)

District	Irrigated						Total
	Other manured		Not manured		Mean yield	No. of experiments	
	No. of experiments	Yield	Mean yield	No. of experiments	Yield	No. of experiments	Mean yield
(1)	(18)	(19)	(20)	(21)	(22)	(23)	(24)
Trivandrum							
HYV	..	..	..	..	..	11	37.65
Local	..	..	..	..	..	2	8.70
Total	..	..	..	..	..	13	46.35
Quilon							
HYV	1	3.25	1131	..	..	6	15.98
Local	1	3.25	1131	..	..	29	63.97
Total	..	..	..	..	..	35	79.95
Alleppey							
HYV	..	..	..	..	..	67	681.46
Local	..	..	..	..	..	16	144.97
Total	..	..	..	..	..	83	826.43
Kottayam							
HYV	3	13.65	1678	..	..	47	352.49
Local	3	13.65	1678	..	..	13	95.55
Total	3	13.65	1678	..	..	60	448.04
Idukki						Nil	
Ernakulam						..	..
HYV	..	..	..	..	..	1	9.00
Local	..	..	..	..	..	..	..
Total	..	..	..	..	..	..	..

District	Treated with pesticides			Not treated with pesticides		
	No. of experiments	Yield	Mean yield	No. of experiments	Yield	Mean yield
(1)	(26)	(27)	(28)	(29)	(30)	(31)
Trivandrum	HYV	26	105.25	1428	6	9.65
	Local	11	54.82	1758	3	7.59
	Total	37	160.07	1526	9	17.24
Quilon	HYV	4	21.12	1225	2	0.80
	Local	25	62.88	875	4	1.09
	Total	29	84.00	1008	6	1.89
Alleppey	HYV	110	1207.59	3932	1	9.05
	Local	18	162.72	3236	..	..
	Total	128	1370.31	3836	1	9.05
Kottayam	HYV	61	487.05	2944	..	..
	Local	13	95.55	2712	..	..
	Total	74	582.60	2904	..	..
Idukki	HYV	Nil				
	Local					
	Total					
Ernakulam	HYV	20	135.23	2452	2	12.05
	Local	100	662.20	2400	13	64.50
	Total	120	797.43	2412	15	76.55

Trichur	HYV	42	349.90	3044	1	1.60
	Local	58	326.99	2060	9	62.59
	Total	100	676.89	2476	10	64.19
Palghat	HYV	21	120.76	2040	5	41.27
	Local	32	156.74	1740	9	34.50
	Total	53	277.50	1860	14	75.77
Malappuram	HYV	30	105.66	1292	2	7.32
	Local	29	175.02	2216	13	64.93
	Total	59	280.68	1748	15	72.25
Kozhikode	HYV	22	99.85	1664	5	13.54
	Local	11	37.22	1240	16	49.96
	Total	33	137.07	1524	21	63.50
Wayanad	HYV	22	199.43	3440	9	83.44
	Local	23	181.11	2984	22	152.46
	Total	45	380.54	3208	41	235.90
Cannanore	HYV	29	191.73	2468	6	7.62
	Local	62	269.77	1625	38	177.51
	Total	91	461.50	1896	44	185.135
Total	HYV	389	3023.57	2816	39	186.34
	Local	382	2185.02	2072	127	615.14
	Total	771	5208.59	2448	166	801.48



PRINTED BY THE S. G. P. AT THE GOVERNMENT PRESS,
TRIVANDRUM, 1988