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GOVERNMENT OF KERALA

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**REPORT ON THE CROP CUTTING SURVEY**  
**ON**  
**WINTER AND SUMMER CROP OF**  
**PADDY 1975**

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BUREAU OF ECONOMICS AND STATISTICS, TRIVANDRUM  
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**Bureau of Economics and Statistics, Trivandrum  
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## CONTENTS

- 1 Introduction
  - 2.1 Objectives of the Survey
  - 2.2 Period of the Survey
  - 2.3 Coverage and Sample Size
  - 2.4 Sampling Design
  - 2.5 Sample Selection
  - 2.6 Field Work
  - 2.7 Analysis
  - 2.8 Procedure of Estimation
  - 2.9 Results of the Survey
-

## Appendix

## WINTER 1975

1. Table 1.1 Area, Mean Yield and Production of Rice in each Taluk during Winter 1975
2. Table 1.2 Area, Mean Yield and Production of Rice in each District during winter 1974 and 1975
3. Table 1.3 Analysis of variance of Plot Yields for Winter 1975
4. Table 1.4 Frequency distribution of plot yields for Winter 1975
5. Table 1.5 Results of driage experiments for Winter 1975
6. Table 1.6 Independent estimate of Mean Yield of Paddy based on harvest stage inspection in Winter 1975
7. Table 1.7 Mean Yield for Winter Season for each Taluk for 5 years from 1971 to 1975
8. Table 2.1 Area, Mean Yield and Production of High Yielding and other varieties of Paddy in Winter 1975
9. Table 2.2 Area, Mean Yield and Production of High Yielding Varieties of Paddy in each district during Winter 1974 and 1975
10. Table 2.3 Distribution of experimental plots with high yielding varieties of paddy according to varieties grown in Winter 1975
11. Table 2.4 Yield rate of High Yielding and other varieties of paddy according to cultivation practices.
12. Table 3.1 Response percentages—Winter 1975
13. Table 3.2 Details of non-response—Winter 1975
14. Table 3.3 Work load of primary workers—District-wise allocation in Winter 1975
15. Table 3.4 Work load of primary workers according to performance in Winter 1975
16. Table 3.5 No. of experiments inspected in Winter 1975

## SUMMER 1975

17. Table 4.1 Area, Mean Yield and production of Rice in each Taluk during Summer 1975
8. Table 4.2 Area, Mean Yield and Production of Rice in each district during Summer 1974 and 1975

19. Table 4.3 Analysis of variance of Plot Yields for Summer 1975.
20. Table 4.4 Frequency distribution of Plot Yields for Summer 1975
21. Table 4.5 Results of driage experiments for Summer 1975
22. Table 4.6 Independent Estimate of Mean Yield of Paddy based on harvest stage inspection in Summer 1975
23. Table 4.7 Mean Yield for Summer Seasons for each Taluk for 5 years from 1971 to 1975
24. Table 5.1 Area, Mean Yield and Production of High Yielding and other varieties of paddy in Summer 1975.
25. Table 5.2 Area, Mean Yield and Production of High Yielding Varieties of Paddy in each district during Summer 1974 and 1975
26. Table 5.3 Distribution of Experimental plots with high yielding varieties of paddy according to varieties grown in Summer 1975
27. Table 5.4 Yield rate of High Yielding and other varieties of paddy according to cultivation practices.
28. Table 6.1 Response percentages—Summer 1975
29. Table 6.2 Details of non-response—Summer 1975
30. Table 6.3 Work load of Primary Workers—District-wise allocation—Summer 1975.
31. Table 6.4 Work load of Primary Workers according to performance in Summer 1975.
32. Table 6.5 No. of experiments inspected in Summer 1975.

#### AUTUMN, WINTER AND SUMMER 1974-75

33. Table 7.1 Season-wise Area, Mean Yield and Production of High Yielding Varieties of Paddy during 1974-75.
34. Table 7.2 Season-wise Area, Mean Yield and Production of Rice in each district during 1974-75.
35. Table 7.3 Season-wise Area, Mean Yield and Production of Rice in Kerala during the period from 1968-69 to 1974-75.

# CROP CUTTING SURVEY ON WINTER AND SUMMER CROP OF PADDY 1975

## 1. Introduction

The Bureau of Economics and Statistics is regularly conducting Crop Estimation Surveys on two of the most important food crops viz, Paddy and Tapioca in the State every year. The main objective of these sample surveys is to estimate productivity as well as the total production in the State. As far as Paddy is concerned the survey is conducted separately during each of the three seasons viz, Autumn (Virippu), Winter (Mundakan) and Summer (Punja) in an year. In the case of Tapioca, the survey is conducted only once in an year.

Usually the results of Crop Cutting Surveys on Paddy are published in two reports, one for Autumn crop and the other for Winter and Summer Crops together. As far as the agricultural year 1974-75 is concerned the report for Autumn Crop of Paddy has already been published and the present report deals with Winter and Summer Crop of Paddy.

### 2.1 Objectives of the Survey:

The main objectives of the Survey conducted during Winter and Summer 1975 were:

- (i) to estimate the average yield of paddy per hectare for each taluk
- (ii) to estimate the average yield per hectare for each district and the State as a whole and
- (iii) to estimate the total production of rice in the State during the two seasons.

It was also intended to frame estimates of productivity of high yielding varieties of paddy as well as for different cultural practices like the application of irrigation, chemical fertilisers, insecticides etc., at the district and the State level.

### 2.2 Period of the Survey:

The harvest season of Winter crop is from December to March while that of Punja is from February to June. Therefore the field work for the surveys under reference was carried out from December 1974 to June 1975.

### 2.3 Coverage and Sample Size:

During Winter 1975, the Survey was conducted in all the taluks in the State except Kuttanad and Cochin Taluks. The Survey was conducted in 50 out of 57 taluks in the State during Summer 1975. This is the first time Tellicherry, Cannanore and Taliparamba taluks were brought under regular Crop Cutting Survey on Paddy during Summer season.

## 2.4 Sampling Design

A stratified multi-stage random sampling design was adopted for the survey. Each taluk was treated as the stratum, census village as the first stage unit, a survey sub-division number as the second stage unit, a kandom as the third stage unit and a square plot of side 5 metres as the ultimate sampling unit. From each of the taluk growing paddy six census villages were selected by simple random sampling method from the list of paddy growing census villages in the taluk. During Summer 1975 two census villages were additionally selected in Kuttanad Taluk in order to facilitate adequate representation of paddy fields in Kayal Area. From each of these selected villages a systematic sample of three survey sub-division numbers were selected from the frame consisting of the list of wet land survey sub-divisions. In survey sub-divisions having more than one kandom, one kandom was randomly selected and a square plot of side 5 metres was located at random in the selected survey sub-division kandom. The crop in the square plot was harvested, thrashed, winnowed and weighed.

A sample of grain weighing not less than 250 gms. was collected from every 5th experimental plot harvested and forwarded to the District Statistical Officer for conducting drriage experiments for estimating the loss due to drriage of wet grain. The practice hitherto followed in this regard has been changed and the Statistical Inspectors (LUS) were made responsible for the conduct of drriage experiments in their offices from Summer 1975.

## 2.5 Sample Selection:

The selection of census villages in each taluk for the conduct of the survey was done by the District Statistical Officer and the list of selected villages was forwarded to the concerned Statistical Inspectors. The selection of plots for the conduct of crop cutting experiments was done by the Statistical Inspectors. The list of selected census villages was also forwarded to the Assistant Director, National Sample Survey Organisation, Trivandrum, for facilitating inspection of the survey, especially at harvest stage by the inspecting staff of his office.

## 2.6 Field Work :

The field work of the survey was attended to by the Investigators under the supervision of Statistical Inspectors.

The total number of crop cutting experiments planned during Winter and Summer 1975 in the State were 968 and 837 respectively. The percentage response was found to be 93 for Winter and 90 for Summer. The percentage response in each district was worked out and presented in table 3.1 for Winter and table 6.1 for Summer. It is seen from the table 3.2 and 6.2 that the loss of experiments was due to prior harvest by cultivators (ie, harvesting the plot before the date fixed for harvest without intimating the actual date of harvest to the Investigator). It was reported that the labour trouble was so severe that the cultivators were constrained to harvest the paddy fields in certain pockets before the date actually fixed for harvest.

As a result of participation of Investigators in the N.G.O. strike held in February 1975 ten experiments were also reported to be lost.

According to the regular programme of work only 102 Investigators will have to attend to the field work of this survey. But at the peak harvesting season the District Statistical Officers usually divert Investigators attached to other surveys also to attend crop cutting survey on paddy so as to prevent loss of experiments. The allocation of field work to the Investigators in the different districts are given in table 3.3 for Winter and 6.3 for Summer. Actually the field work of the Surveys was allotted to 137 and 124 Investigators during Winter and Summer respectively.

It was reported that about 56% of the Investigators had done 5 to 8 experiments each during Winter 1975. This percentage was found to be little higher (about 62) in Summer Season. More than 8 experiments were done by about 27% of the Investigators in Winter while in Summer only about 17% of the Investigators had achieved this rate. Besides, 4 experiments or less was done by about 17% and 21% of the Investigators during Winter and Summer respectively. However, it is seen that the average number of experiments conducted per Investigator come to 6.6 in Winter and 6.2 in Summer when the total number of experiments analysed are taken into consideration in the respective seasons. The distribution of Investigators according to the number of experiments conducted by them in the various districts of the State are presented in table 3.4 and 6.4 in the appendix for Winter and Summer respectively.

Two schedules were prescribed for field work, one preliminary schedule and the other final schedule. The Investigator was instructed to fill up the preliminary schedule at the time of his first visit to the selected plot while the final schedule at the time of conducting crop cutting experiment in the plot.

The field work of the survey was inspected at three stages viz., pre-harvest, harvest and post-harvest by the Statistical Inspectors and District Statistical Officers. About 35% of the experimental plots were inspected at the time of harvest, about 30% at the pre-harvest stage and about 6% at the post-harvest stage during Winter 1975. As far as Summer season is concerned these percentages are 30, 17 and 6. The number of experiments inspected at the three stages together with their percentages in all the districts of the State during Winter and Summer seasons are given in table 3.5 and 6.5 respectively in the appendix.

## 2.7 Analysis:

The analysis of the data collected through the surveys was done at the headquarters of the Bureau by the regular staff of the Agricultural Statistics Unit.



## 2.8 Procedure of Estimation

(i) *Mean yield*:—The taluk-wise mean yield of dry paddy and its standard error were estimated using the following formula.

$$\text{Taluk mean yield } \bar{x} = \frac{\sum_{i=1}^k \sum_{j=1}^{n_i} x_{ij}}{\sum_{i=1}^k n_i}$$

Where  $n_i$  = Number of experiments conducted in the  $i$ th village ( $i = 1, 2, 3, \dots, k$ )

$x_{ij}$  = Weight of paddy obtained from the  $j$ th experiment in the  $i$ th village/kara ( $j = 1, 2, 3, \dots, n_i$ )

Each cut (experiment) is taken from 5 metre square (1/400th of an hectare). Mean yield of dry paddy in kg. per hectare =  $\bar{x} \times 400 \times d$  where  $d$  is the drriage ratio of dry paddy to wet paddy.

(ii) *Standard Error (S. E.) of the taluk mean yield*: Variance of the taluk

$$\text{mean yield} = \frac{A}{N} + \frac{B-A}{m} \times \frac{\sum_{i=1}^k n_i^2}{N^2}$$

Where  $A$  = Mean square within karas.

$B$  = Mean square between karas.

$N$  = Total number of experiments conducted in the taluk  $\left( \sum_{i=1}^k n_i \right)$

$n_i$  = Number of experiments conducted in the  $i$ th village/kara.

$$m = \frac{N^2 - \sum_{i=1}^k n_i^2}{N(k-1)} \quad \text{and}$$

$k$  = Number of villages selected in the taluk.

The standard error (S. E.) is the square root of this variance. The standard error in Kg./Hectare is obtained by multiplying this root of variance with 400.

(iii) *Standard Error of the State Mean Yield*: The formula used for the purpose is indicated below.

$$\text{The Standard Error of the State Mean Yield} = \sqrt{\frac{\sum (a_i s_i)^2}{(\sum a_i)^2}}$$

Where  $a_i$  = Area under the crop in the  $i$ th taluk and

$s_i$  = The Standard Error of the estimate of mean yield in the  $i$ th taluk.

The data on area under paddy in each taluk estimated from the Land Utilisation Survey of this department have been utilised to compute the production of rice.

The weight of cleaned rice is reckoned as 65.7% of dry paddy.

## 2.9 Results of the Survey

The estimated production of rice in the State during the year 1974-75 is given below.

Autumn 1974	..	535545	tonnes
Winter 1975	..	602186	..
Summer 1975	..	196200	..
		<hr/>	
Total		1333931	..

Compared to the corresponding seasons of the previous year the production of rice in the State has increased by about 19% during Winter 1975 and about 37% during Summer 1975. This was mainly due to the enhancement of productivity in both the seasons. The increase in productivity at the State level was found to be about 17% in Winter 1975 and about 35% in Summer 1975 compared to the corresponding seasons of the previous year while the increase in area was found to be only about one per cent in both the seasons.

But during the year 1973-74, the Winter and Summer Crops of Paddy were severely affected by brown hopper and other pest attacks in several districts in the State and as such the production of rice in those two seasons was less and therefore the production of rice in those two seasons are not fit for comparison. As such we have to resort to the Winter and Summer Seasons for 1972-73 for comparing the production estimated for Winter & Summer of 1974-75. As is evident from the table 7.3 in the Appendix the production of rice during Winter 1975 has dwindled by about 1.2% compared to that of Winter 1973. The productivity of paddy at the State level was also decreased by about 2% in Winter 1975 compared to that of Winter 1973.

The reason for the shortfall in production of rice during Winter 1975 was mainly reported to be the failure of North-East Monsoon and the resultant drought condition prevailed in the different districts of the State. The drought was reported to be more severe in Palghat, Malappuram, Kozhikode, Quilon and Alleppey Districts.

The crop was reported to be completely damaged in seven plots selected for crop cutting experiment in Winter 1975. Of which three experimental plots were in Palghat Taluk where all of them were damaged due to drought. The crop in one experiment was completely lost in Parur Taluk as a result of intrusion of salinity that too due to lack of rain. Out of the three remaining experiments, two were completely damaged in Shertallai and one in Quilandy taluk due to untimely rain and flood.

No doubt, the production of rice was better in Summer 1975 compared to the corresponding seasons of the last two years as a result of favourable climatic conditions. Besides, as a result of putting up a temporary bund for the incomplete portion of the Thannirmukkom Bund the paddy fields in Kuttanad Region have been saved from the intrusion of salinity through Vembanad lake. However, pest attack, flood, drought etc., not of severe

nature were reported from few taluks. Paddy crops in eleven experimental plots were also reported to be damaged completely during the season due to flood, drought, pest attack etc.

The estimated area, mean yield and its standard error, production of rice together with the number of crop cutting experiments analysed in each taluk during Winter and Summer 1975 are given in Table 1.1 and 4.1 respectively in the appendix.

The Crop Cutting experiments on Paddy under I.A.D.P. series have not been conducted by the Package Staff in Alleppey and Palghat Districts according to the existing practice during the two seasons. It was reported by the Joint Director, Agriculture (Package Programme), Alleppey District and Palghat District that they were not able to conduct the experiments for want of cooperation from the Village Extension Officers in the I. A. D. P. area. This fact has already been brought to the notice of the Government and the Government have issued necessary instructions to the District Collectors to direct the Village Extension Officers to conduct the crop cutting experiments without fail. Hence it is hoped that the experiments under I.A.D.P. series will be conducted from the next autumn season onwards.

However, the Joint Director of Agriculture, Package Programme, Alleppey has managed to conduct few crop cutting experiments on paddy during Winter and Summer 1975 in his District. As the percentage of response in these cases was found to be too low to frame reliable estimates, the results of the same have not been pooled with that of the State series of experiments. The number of experiments conducted in Alleppey District under I.A.D.P. series are given below.

Season	No. of experiments		
	Planned	Conducted	Percentage response
Winter 1975	150	37	24.7
Summer 1975	300	63	21.0

For facilitating comparison, the data on area, mean yield and production of rice in all the districts of the State during the corresponding seasons of 1973-74 are given along with those of Winter and Summer 1975 in Table 1.2 and 4.2 respectively in the appendix. The analysis of variance of plot-yields pooled for the State is given in Table 1.3 and 4.3 in the appendix in respect of Winter and Summer seasons respectively. In both the cases the yield rate of paddy was found to be statistically significant between taluks. The difference in yield rate was not, however, found to be significant between karas within taluk. In other words, though there was significant difference in the mean yield of paddy from taluk to taluk, the difference in the mean yield of paddy from kara to kara in a taluk was not significant in the two seasons under reference.

The frequency distribution of plot yields obtained through the survey in each district as well as the State during Winter and Summer seasons are given in Table 1.4 and 4.4 respectively in the appendix. During Winter 1975, the yield obtained from about 50% of the experimental plots was over 2,500 Kgs. of wet paddy per hectare while this percentage was 51 in Summer 1975. Over 15% of the experimental plots in Summer have yielded more than 4100 Kg. of wet paddy per hectare whereas in Winter it was only less than 8%.

With a view to find out the drriage ratio of dry paddy to wet paddy 161 experiments were conducted in the District Offices during Winter and 135 experiments were conducted at the Taluk Statistical Offices during Summer seasons. The drriage ratio for each district and the State are worked out and given in table 1.5 and 4.5 in the appendix for Winter and Summer respectively.

Independent estimates of mean yield of paddy (Simple average) both wet and dry for the districts and the State were also framed based on the data obtained from the experimental plots inspected by the Statistical Inspectors and the District Statistical Officers at harvest stage. It was programmed to conduct harvest stage inspection on 411 experimental plots in Winter and 360 experimental plots in Summer but could conduct only about 76% and 63% respectively. Prior harvest by cultivators was reported to be the main reason for the shortfall in achievement in this regard. The estimated average yield (simple average) for each district and the State based on harvest stage inspections are given in table 1.6 and 4.6 in the appendix for winter and summer respectively.

The estimated mean yield of Winter and Summer paddy for each taluk for the last 5 years from 1971 to 1975 are given in the table 1.7 and 4.7 respectively in the appendix.

*High Yielding Varieties.*—The estimated area, mean yield and production of high yielding, other varieties including traditional and improved varieties and all varieties of paddy for each district and the State for Winter and Summer are presented in Table 2.1 and 5.1 respectively in the appendix.

Compared to the winter and summer seasons 1974, the productivity of high yielding varieties of paddy for the State showed sizable increase during the seasons under report. During Winter 1975, the productivity had gone up by about 24% while in Summer 1975, it had gone up to 36%. This showed that the high yielding varieties of paddy in the State have come out of the set back it suffered due to severe brown hopper attack during the year 1973-74. But the fall in the extent under high yielding varieties in both the seasons showed that at least a good number of cultivators have reverted to the practice of cultivation of other varieties of paddy either on the fear of recurrence of severe pest attack or on the notion that the local varieties will be more remunerative, when all aspects of cultivation is taken into consideration. Hence there is scope for extension work to remove such sorts of believes from the ryots. However substantial increase

in area under high yielding varieties was reported from Kozhikode District closely followed by Cannanore and Ernakulam Districts during Winter 1975. The increase was nominal in these districts during summer 1975. The fall in acreage under high yielding varieties of paddy was as high as about 41% during Summer 1975 which resulted in the reduction of rice production from these varieties by about 19% compared to the summer season of 1974. But in Winter, the rice production from high yielding varieties has increased by about 11% from that obtained from Winter 1974.

The lowest average yield of high yielding varieties was found to have obtained for Quilon District in these two seasons.

The estimated area, mean yield and production of rice in respect of high yielding varieties of paddy for the districts and the State during Winter and Summer 1975 together with that of the corresponding seasons of the previous year are given in table 2.2 and 5.2 respectively in the appendix.

High Yielding Varieties of paddy was reported to have been raised in about 15% of the experimental plots in Winter 1975 and about 43% of the experimental plots in Summer 1975. The names of different high yielding strains of paddy cultivated in the different districts during winter and summer 1975 are given in table 2.3 and 5.3 respectively in the appendix. It can reasonably be concluded from this table that the cultivators preference of high yielding varieties of paddy in their order of preference are IR8, H4, Jaya, Thriveni, and Annapurna during winter season and Thriveni, Jaya, IR8, Annapurna and H4 in Summer season, though all of them were not cultivated in all the districts. Mashuri and IR 20 were also found to have been raised in some districts during Winter season while Jothi, Rohini, Bharathi, Aswathi, TN 1 and IR 5 besides Mashuri and IR 20 were also raised in some districts during Summer 1975. The recently introduced high yielding strains like Jyothi, Rohini, Bharathi, Aswathi etc. have not been spread adequately in any part of the State so far. Therefore there is enough scope for extension work to propagate these varieties of paddy among the cultivators of this State.

During Winter and Summer 1975, about 40% and 70% respectively of the experimental plots were found to have been received irrigation. About 97% of the irrigated plots were also reported to have been applied with the chemical fertilisers and manures in Winter 1975 while in summer almost all the irrigated plots were reported to have been manured.

Chemical fertilisers were applied to about 68% and 88% of the unirrigated plots during Winter and Summer respectively.

Irrespective of irrigation, it was found that about 72% of the experimental plots were provided with chemical fertilisers, 21% of the plots with manures like, farm yard manure, Compost manure, green manure etc. and 7% of the plots were not at all manured during Winter 1975. In Summer 1975, these percentages were found to be about 89, 10 and 1 respectively.

There was no report of severe attack of pests and diseases from any part of the State during the two seasons under reference (except the drought

conditions prevailed in certain parts of the State as a result of failure of North-East Monsoon. Nevertheless, about 60% and 79% of the experimental plots were treated with insecticides or pesticides during Winter and Summer respectively. It was also found that while 82% of the high yielding variety plots were treated with insecticides or pesticides only 56% of the non-high yielding variety plots were treated for the purpose during Winter 1975. The corresponding percentages for Summer season came to 84 and 74 respectively. This higher percentages of plots under high yielding varieties treated with insecticides and pesticides in both seasons indicates that either the incidence of attack of pest or diseases was more in the case of high yielding varieties of paddy or the ryots raising high yielding varieties of paddy were using insecticides and pesticides as precautionary measures.

The estimated average yield of high yielding and that of other varieties of paddy in irrigated and unirrigated plots, manured and unmanured plots and plots treated and untreated with insecticides and pesticides together with the number of experiments obtained in the survey under each of these categories in respect of winter and summer seasons of 1974-75 are given in Table 2.4 and 5.4 respectively in the Appendix.

The data on the estimated area, mean yield and production of high yielding varieties of paddy in each district during the 3 seasons viz., Autumn, Winter, and Summer of 1974-75 are provided in Table 7.1 in the appendix to facilitate comparison. Similarly a statement is given for all varieties of paddy in Table 7.2 in the appendix. Data on estimated area, mean yield and production of rice in the State for the last 7 years are given separately for each season as well as annual in Table 7.3 in the appendix.

## APPENDIX

TABLE—1.1

Estimated Area, Mean Yield and production of Rice—Winter crop of paddy—1975

Taluks & Districts	No. of Experiments	Area in Hectare	Mean yield of dry paddy in Kgs./hect.	Standard error	Production of Rice in Tonnes
(1)	(2)	(3)	(4)	(5)	(6)
1. Neyyattinkara	17	5945	2130	197	8319
2. Trivandrum	18	4436	2548	167	7426
3. Nedumangad	18	5043	2450	124	8117
4. Chirayinkil	17	4764	2732	100	8551
TRIVANDRUM DISTRICT	70	20188	2444	79	32413
5. Quilon	18	4760	2230	265	6974
6. Kottarakkara	17	7174	2497	351	11769
7. Kunnathur	17	5277	2712	291	9402
8. Pathanapuram	14	5034	2788	229	9221
9. Pathanamthitta	18	2403	2732	242	4313
10. Karunagappally	18	4721	2039	133	6324
QUILON DISTRICT	102	29369	2488	120	48003
11. Karthigappally	17	5949	1705	293	6664
12. Mavelikara	18	5495	2878	211	10390
13. Chengannur	14	2660	3043	262	5318
14. Thiruvalla	13	2843	2849	193	5322
15. Kuttanad	..	..	..	..	..
16. Ambalapuzha	14	2211	1205	258	1750
17. Shertalai	17	4414	565	149	1638
ALLEPPEY DISTRICT	93	23572	2007	103	31082
18. Changanacherry	16	1458	3031	288	2903
19. Kanjirappally	17	143	1951	332	183
20. Kottayam	16	7140	2499	276	11723
21. Vaikom	16	7175	1992	257	9390
22. Meenachil	18	3103	2582	310	5264
KOTTAYAM DISTRICT	83	19019	2358	152	29463

	(1)	(2)	(3)	(4)	(5)	(6)
23.	Peermade	9	90	2643	641	156
24.	Devikulam	12	4195	2624	253	7232
25.	Udumbanchola	12	1589	2473	256	2582
26.	Thodupuzha	16	3315	2890	118	6294
	<b>IDIKKI DISTRICT</b>	49	9189	2694	131	16264
27.	Kothamangalam	17	4712	2734	206	8464
28.	Muvattupuzha	15	7097	2673	182	12463
29.	Cochin	Nil	..	..	..	..
30.	Kanayannur	17	4689	1984	292	6112
31.	Kunnathunad	16	11301	2402	241	17834
32.	Alwaye	15	10339	2420	215	16438
33.	Parur	16	2132	2338	340	3275
	<b>ERNAKULAM DISTRICT</b>	96	40270	2441	103	64586
34.	Crangannore	18	1581	1060	76	1101
35.	Mukundapuram	18	15482	1743	96	17729
36.	Trichur	18	17699	2306	137	26815
37.	Thalappally	18	16342	2381	146	25564
38.	Chowghat	18	9027	2246	193	13320
	<b>TRICHUR DISTRICT</b>	90	60131	2140	102	84529
39.	Chittur	17	22364	3858	257	56686
40.	Alathur	18	20526	3420	432	46121
41.	Palghat	11	15721	2889	394	29840
42.	Ottappalam	18	17384	2445	163	27925
43.	Mannarghat	18	6279	2675	212	11035
	<b>PALGHAT DISTRICT</b>	82	82274	3175	154	171607
44.	Perintalmanna	15	5676	2242	197	8361
45.	Ponnani	18	6440	2161	308	9143
46.	Tirur	18	10257	1811	304	12204
47.	Ernad	18	13588	1467	338	13096
	<b>MALAPPURAM DISTRICT</b>	69	35961	1812	167	42804
48.	Kozhikode	16	10275	1970	191	13299
49.	Quliandy	7	6520	1377	202	5899
50.	Badagara	17	3119	1440	97	2951
51.	South Wynad	18	15232	2171	198	21726
	<b>KOZHIKODE DISTRICT</b>	68	35146	1900	109	43875
52.	North Wynad	15	9379	2139	276	13181
53.	Tellicherry	18	3374	1597	103	3540
54.	Cannanore	18	1663	1117	223	1220
55.	Taliparamba	16	6122	1734	339	6974
56.	Hosdurg	18	4261	2068	340	5789
57.	Kasargode	15	4918	2122	190	6856
	<b>CANNANORE DISTRICT</b>	100	29717	1924	127	37560
	<b>STATE</b>	902	384836	2382	44	602186



TABLE 1.2

Estimated Area, mean yield and production of Rice relating to winter crop of paddy 1974 and 1975

Sl. No.	District	Area in hectares		Mean yield of dry paddy (in kg./hect.)		Production of rice (tonnes)	
		1974	1975	1974	1975	1974	1975
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
1.	Trivandrum	20141	20188	2131	2444	28204	32413
2.	Quilon	28787	29369	2568	2488	48563	48003
3.	Alleppey	23431	23572	1407	2007	21662	31082
4.	Kottayam	19145	19019	1918	2358	24120	29463
5.	Idikki	9311	9189	2179	2694	13332	16264
6.	Ernakulam	39092	40270	1903	2441	48884	64586
7.	Trichur	60620	60131	1587	2140	63211	84529
8.	Palghat	79753	82274	2336	3175	122420	171607
9.	Malappuram	36127	35961	2185	1812	51858	42804
10.	Kozhikode	35185	35146	1959	1900	45285	43875
11.	Cananore	29388	29717	2083	1924	40216	37560
	State	380980	384836	2028	2382	507755	602186

TABLE 1.3

Winter crop of paddy 1975

Analysis of variance of plot yield pooled for the State, in Kgm/plot of 1/400 of an Hectare

Source of variation	Sum of squares	Degrees of freedom	Mean sum of square (variance)	Variance ratio calculated
(1)	(2)	(3)	(4)	(5)
Between taluk	2578.17	54	47.74	7.062*
Between karas within taluk	349.12	266	1.31	
Within karas within taluk	3926.33	581	6.76	
All	6853.62	901		

\* Significant at 1% level.

TABLE 1.4  
 Winter crop of paddy 1975  
 Frequency Distribution of plot yield (wet paddy)

Sl. No.	Class Interval (kg./hect.)	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)
		Trivandrum	Quilon	Alleppey	Kottayam	Idikki	Ernakulam	Trichur	Palghat	Malappuram	Kozhikode	Cannanore	State		
1.	Below 500	..	1	13	1	..	4	..	..	1	4	3	26		
2.	500—699	—	1	21	2	..	..	..	1	..	1	2	8		
3.	700—899	..	1	10	2	..	..	3	..	5	2	7	30		
4.	900—1099	..	2	2	5	..	..	6	..	9	4	7	36		
5.	1100—1299	..	3	3	1	..	1	7	1	5	4	9	34		
6.	1300—1499	..	2	2	3	..	..	3	5	2	4	8	32		
7.	1500—1699	4	2	3	3	..	3	9	2	8	5	9	48		
8.	1700—1899	4	2	2	3	..	9	3	2	3	6	9	44		
9.	1900—2099	2	7	4	5	3	3	11	2	5	9	6	57		
10.	2100—2299	3	10	6	6	3	4	14	2	6	9	5	68		
11.	2300—2499	3	10	9	4	7	7	10	2	3	8	7	70		
12.	2500—2699	8	11	4	5	6	12	7	7	4	2	8	74		
13.	2700—2899	7	10	4	5	6	13	4	9	2	3	2	65		
14.	2900—3099	6	3	5	7	6	7	1	8	2	1	5	51		
15.	3100—3299	12	4	6	5	5	9	5	2	2	2	7	59		
16.	3300—3499	6	10	2	4	4	4	2	3	4	..	1	40		
17.	3500—3699	3	1	4	7	..	8	3	2	3	..	2	33		
18.	3700—3899	4	7	3	3	..	5	3	4	1	2	2	32		
19.	3900—4099	1	7	2	5	3	1	..	3	1	1	1	25		
20.	4100 and above	4	9	8	7	4	6	1	27	3	1	..	70		
All		70	102	93	83	49	96	90	82	69	68	100	902		

TABLE 1.5

## The Results of driage experiments—Winter Paddy 1975.

Sl. No.	District	No. of driage experiments		Total yield collected for driage experiments (kgs.)	Total yield after driage operation (kgs.)	driage ratio (percentage)
		Planned	Analysed			
(1)	(2)	(3)	(4)	(5)	(6)	(7)
1.	Trivandrum	12	12	3,000	2,590	86.3
2.	Quilon	17	17	4,240	3,772	89.0
3.	Alleppey	15	18	4,500	4,060	90.2
4.	Kottayam	15	15	3,750	3,343	89.1
5.	Idikki	8	7	1,750	1,599	91.4
6.	Ernakulam	18	18	4,500	3,936	87.5
7.	Trichur	15	18	4,500	4,118	91.5
8.	Palghat	14	12	3,000	2,735	91.2
9.	Malappuram	12	12	3,000	2,716	90.5
10.	Kozhikode	12	12	3,000	2,695	89.8
11.	Cannanore	18	20	5,000	4,600	92.0
	STATE	156	161	40,240	36,164	89.9

TABLE 1.6

Independent estimate of mean yield of paddy based on harvest stage inspection during winter 1975.

Sl.No.	District	No. of experiments		Mean yield of paddy (Kgs./Hectare)		Drirage ratio used for columns 5 & 6
		Planned for harvest stage inspection	Inspected at har- vest stage	Before drirage	After drirage	
(1)	(2)	(3)	(4)	(5)	(6)	(7)
1.	Trivandrum	31	26	3033	2617	0.863
2.	Quilon	45	39	2708	2410	0.890
3.	Alleppey	45	32	2429	2191	0.902
4.	Kottayam	38	35	2602	2318	0.891
5.	Idukki	24	18	3217	2940	0.914
6.	Ernakulam	45	32	2486	2175	0.875
7.	Trichur	38	35	2265	2072	0.915
8.	Palghat	38	20	4163	3797	0.912
9.	Malappuram	31	21	2345	2122	0.905
10.	Kozhikode	31	31	2053	1844	0.898
11.	Cannanore	45	23	1899	1747	0.920
	STATE	411	312	2596	2334	0.899

TABLE 1.7

Estimated Mean yield of dry paddy (Kgs./Hect.) during Winter Season from 1971 to 1975

Taluk and District	1971	1972	1973	1974	1975
(1)	(2)	(3)	(4)	(5)	(6)
1. Neyyattinkara	2702	2224	2135	2164	2130
2. Trivandrum	2039	2488	2330	2058	2548
3. Nedumangad	2091	2791	2999	2010	2450
4. Chirayinkil	1968	2608	2477	2289	2732
TRIVANDRUM DISTRICT	2232	2513	2474	2131	2444
5. Quilon	2705	2058	2209	2657	2230
6. Kottarakkara	2845	2900	2420	2720	2497
7. Kunnathur	2810	2368	2510	2245	2712
8. Pathanapuram	2513	2882	3521	2844	2788
9. Pathanamthitta	2788	2564	2204	2604	2732
10. Karunagappally	2234	1826	1991	2319	2039
QUILON DISTRICT	2657	2458	2498	2568	2488
11. Karthigappally	2282	1487	1735	1258	1705
12. Mavelikkara	2332	1883	2072	1493	2878
13. Chengannur	2218	3246	3853	2345	3043
14. Thiruvalla	2793	2317	2425	2056	2849
15. Kuttanad Nil.	..	..	..	..	..
16. Ambalapuzha	1770	1794	1294	1094	1205
17. Sherthalai	907	774	938	618	565
ALLEPPEY DISTRICT	1896*	1778*	2001*	1407	2007
18. Changanacherry	2699	2942	2199	2070	3031
19. Kanjirappally	1670	2154	2327	2327	1951
20. Kottayam	2746	2455	2894	1821	2499
21. Vaikom	2415	2180	1961	1892	1992
22. Meenachil	2835	2810	2308	2101	2582
KOTTAYAM DISTRICT	2619	2440	2392	1918	2358
23. Peermade	3045	2671	3835	3835	2643
24. Devikulam	2108	2286	2549	1829	2624
25. Udumbanchola	3089	2895	2484	2831	2473
26. Thodupuzha	2101	1933	2423	2265	2890
IDUKKI DISTRICT	2293	2273	2498	2179	2694

TABLE 1.7 (Contd.)

	(1)	(2)	(3)	(4)	(5)	(6)
27. Kothamangalam	}	2125	1940	2263	2296	2734
28. Muvattupuzha						2673
29. Cochin		Nil.		..	..	1984
30. Kanayannur		2307	1858	1526	1381	1984
31. Kunnathunad		2101	2056	2112	2007	2402
32. Alwaye		2432	2118	2034	1726	2420
33. Parur		1777	1985	1583	1820	2338
ERNAKULAM DISTRICT		2199	2013	2037	1903	2441
34. Cranganore		1236	1772	1835	1082	1060
35. Mukundapuram		2007	2448	2361	1738	1743
36. Trichur		2181	2099	2127	1365	2306
37. Thalappally		2521	2474	2399	2020	2381
38. Chowghat		1486	1327	2441	1050	2246
TRICHUR DISTRICT		2103	2175	2303	1587	2140
39. Chittur		2424	2613	2634	2042	3858
40. Alathur		3533	3489	3382	2675	3420
41. Palghat		2238	3995	2698	2637	2889
42. Ottappalam		2207	2591	1980	2020	2445
43. Mannarghat		1965	2107	1880	2537	2675
PALGHAT DISTRICT		2556	3237*	2786*	2336	3175
44. Perinthalmanna		2937	2013	2060	1769	2242
45. Ponnani		1320	4591	4436	2894	2161
46. Tirur		1661	1696	4184	2288	1811
47. Ernad		2043	1867	2380	1946	1467
MALAPPURAM DISTRICT		1943	2347	3222	2185	1812
48. Kozhikode		2052	1322	1752	1506	1970
49. Quilandy		1246	1500	1357	1339	1377
50. Badagara		2461	1727	1249	1150	1440
51. South Wynad		2131	2627	2593	2696	2171
KOZHIKODE DISTRICT		1974	1942	1991	1959	1900
52. North Wynad		2393	2108	2332	2738	2139
53. Tellicherry		1132	1582	1456	1564	1597
54. Cannanore		1501	1420	1648	1572	1117
55. Taliparamba		1857	1600	1852	1662	1734
56. Hosdurg		2082	1719	1971	1611	2068
57. Kasargode		1618	2119	2040	2284	2122
CANNANORE DISTRICT		1914	1847	1994	2083	1924
STATE		2259*	2378*	2426*	2028	2382

\*Pooled estimates.

TABLE 2.1  
**Estimated area, mean yield and production of High yielding and other varieties of paddy during winter 1975**

Sl. No.	District	No. of experiments conducted		% age of HYV experiments to total No. of experiments	High yielding varieties		
		HYV	Total		Area (hect.)	Mean yield (dry paddy kgm./hect.)	Production of Rice (tonnes)
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
1	Trivandrum	8	70	11.43	2307	2514	3810
2	Quilon	2	102	1.96	576	1878	711
3	Alleppey	13	93	13.98	3295	2257	4886
4	Kottayam	27	83	32.53	6187	2450	9959
5	Idukki	15	49	30.61	2813	3295	6090
6	Ernakulam	13	96	13.54	5453	2930	10497
7	Trichur	11	90	12.20	7336	2798	13486
8	Palghat	4	82	4.88	4015	2909	7674
9	Malappuram	17	69	24.64	8861	2311	13454
10	Kozhikode	11	68	16.18	5687	1969	7357
11	Cannanore	15	100	15.00	4458	2020	5916
	STATE	136	902	15.08	50988	2503	83840

TABLE 2.1.-(contd.)

Sl. No.	District	Other varieties				All varieties				
		Area (hect.)	Mean yield (dry paddy kgm./hect.)	Production of Rice (tonnes)	Area (hect.)	Mean yield (dry paddy kgms./hect.)	Production of Rice (tonnes)	Area (hect.)	Mean yield (dry paddy kgms./hect.)	Production of Rice (tonnes)
(1)	(2)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)
1	Trivandrum	17881	2435	28603	20188	2444	32413	20188	2444	32413
2	Quilon	28793	2500	47292	29369	2488	48003	29369	2488	48003
3	Alleppey	20277	1966	26196	23572	2007	31082	23572	2007	31082
4	Kottayam	12832	2313	19504	19019	2358	29463	19019	2358	29463
5	Idukki	6376	2429	10174	9189	2694	16264	9189	2694	16264
6	Ernakulam	34817	2364	54089	40270	2441	64586	40270	2441	64586
7	Trichur	52795	2048	71043	60131	2140	84529	60131	2140	84529
8	Paighat	78259	3188	163933	82274	3175	171607	82274	3175	171607
9	Malappuram	27100	1648	29350	35961	1812	42804	35961	1812	42804
10	Kozhikode	29459	1887	36518	35146	1900	43875	35146	1900	43875
11	Cannanore	25259	1907	31644	29717	1924	37560	29717	1924	37560
	STATE	333848	2363	518346	384836	2382	602186	384836	2382	602186



TABLE 2.2

Estimated Area, mean yield and production of high yielding varieties of paddy during winter 1974 and 1975

Sl. No.	District	Area in hectares		Mean yield of dry paddy (kgms./hect.		Production of Rice in tonnes	
		1974	1975	1974	1975	1974	1975
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
1	Trivandrum	2075	2307	2138	2514	2915	3810
2	Quilon	1382	576	2601	1878	2362	711
3	Alleppey	5858	3295	1598	2257	6150	4886
4	Kottayam	9783	6187	1835	2450	11794	9959
5	Idukki	829	2813	1830	3295	997	6090
6	Ernakulam	4808	5453	1820	2930	5749	10497
7	Trichur	12609	7336	1488	2798	12327	13486
8	Palghat	8693	4015	2182	2909	12462	7674
9	Malappuram	6900	8861	2948	2311	13364	13454
10	Kozhikode	1935	5687	2866	1969	3644	7357
11	Cannanore	2204	4458	2784	2020	4031	5916
	STATE	57076	50988	2021	2503	75795	83840

TABLE 2.3

Distribution of fields with high yielding varieties of paddy according to the varieties grown during winter 1975

Sl. No.	District	No. of experiments conducted		%age of HYV to total experiments	No. of experiments	Thrivell	Anna-porna (culture 28)	Jaya	IR-8	Masburi	H-4	IR-20
		HYV	Total									
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	
1	Trivandrum	8	70	11.43	3	1	2	2	..	..	..	..
2	Quilon	2	102	1.96	1	..	1	..	..	..	..	..
3	Alleppey	13	93	13.98	2	..	5	..	1	5	..	..
4	Kotrayam	27	83	32.53	3	5	5	3	..	11	..	..
5	Idukki	15	49	30.61	..	..	..	..	..	..	15	..
6	Ernakulam	13	96	13.54	3	2	2	3	1	2	..	..
7	Trichur	11	90	12.20	..	..	..	11	..	..	..	..
8	Palghat	4	82	4.88	..	..	1	2	1	..	..	..
9	Malappuram	17	69	24.64	1	..	7	2	7	..	..	..
10	Kozhikode	11	68	16.18	1	2	3	4	..	..	..	1
11	Cannanore	15	100	15.00	2	3	3	7	..	..	..	..
	STATE	136	902	15.08	16	13	29	34	10	33	1	1

TABLE 2.4

District-wise yield rate for High Yielding and other varieties of paddy according to cultivation practices during winter 1975.

District	Variety	Irrigated			Un Irrigated			Irrigated but not manured			Irrigated & manured		
		(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
		No. of experi- ments	Mean yield of dry paddy kgs./hect.	No. of experi- ments	Mean yield of dry paddy kgs./hect.	No. of experi- ments	Mean yield of dry paddy kgs./hect.	No. of experi- ments	Mean yield of dry paddy kgs./hect.	No. of experi- ments	Mean yield of dry paddy kgs./hect.	No. of experi- ments	Mean yield of dry paddy kgs./hect.
Trivandrum	H	6	2856	2	1492	..	..	..	..	6	2855	..	..
	O	38	2514	24	2375	..	..	..	..	38	2514	..	..
	T	44	2561	26	2307	..	..	..	..	44	2561	..	..
Quilon	H	..	..	2	1878	..	..	..	..	..	..	..	..
	O	19	2242	81	2559	..	..	..	..	19	2242	..	..
	T	19	2242	83	2543	..	..	..	..	19	2242	..	..
Alleppey	H	4	3007	9	1924	..	..	..	..	4	3007	..	..
	O	14	1970	66	1953	..	..	..	..	14	1970	..	..
	T	18	2200	75	1950	..	..	..	..	18	2200	..	..
Kottayam	H	12	2816	15	2157	..	..	..	..	12	2816	..	..
	O	19	2638	37	2263	..	..	..	..	19	2638	..	..
	T	31	2707	52	2232	..	..	..	..	31	2707	..	..
Iddukki	H	5	3137	10	3375	..	..	..	..	5	3137	..	..
	O	3	2734	31	2374	..	..	..	..	3	2734	..	..
	T	8	2986	41	2618	..	..	..	..	8	2986	..	..

TABLE 2.4 (Contd.)

	Chemically manured		Other manured		Neither irrigated nor manured		Treated with pesticides		Not treated with pesticides	
	No. of experiments	Mean yield of dry paddy kgs./hect.	No. of experiments	Mean yield of dry paddy kgs./hect.	No. of experiments	Mean yield of dry paddy kgs./hect.	No. of experiments	Mean yield of dry paddy kgs./hect.	No. of experiments	Mean yield of dry paddy kgs./hect.
	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)	(19)	(20)
<u>Trivandrum</u>	2	1492	..	..	..	..	8	2514	..	..
	22	2412	..	1960	..	..	38	2466	24	2451
	24	2335	2	1960	..	..	46	2474	24	2451
	2	1878	..	..	..	..	2	1878	..	..
Quilon	71	2606	10	2221	..	..	31	2292	69	2592
	73	2586	10	2221	..	..	33	2267	69	2592
	8	1937	..	..	1	1819	10	2126	3	2694
	46	2482	12	926	8	389	28	2591	52	1602
Alleppey	54	2401	12	926	9	548	38	2469	55	1662
	13	2248	2	1563	..	..	26	2457	1	2250
	35	2318	1	1994	1	605	54	2428	2	1380
Kottayam	48	2299	3	1707	1	605	80	2437	3	1670
	9	3351	1	3586	..	..	13	3241	2	3651
Idukki	19	2480	6	2336	6	2072	29	2350	5	2723
	28	2760	7	2515	6	2072	42	2626	7	2988

TABLE 2.4 (Contd.)

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
Ernakulam	H	12	3016	1	1890	..	..	12	3016
	O	62	2411	21	2138	3	1364	59	2464
	T	74	2509	22	2127	3	1364	71	2557
Trichur	H	1	2031	10	2874	..	..	1	2031
	O	38	2130	41	1549	..	..	38	2130
	T	39	2127	51	1809	..	..	39	2127
Palghat	H	4	2909	..	..	..	..	4	2909
	O	50	3396	28	2487	..	..	50	3396
	T	54	3360	28	2487	..	..	54	3360
Malappuram	H	5	2227	12	2346	..	..	5	2227
	O	25	1679	27	1862	7	1115	18	1899
	T	30	1770	39	2011	7	1115	23	1970
Kozhikode	H	..	..	11	1969	..	..	..	..
	O	..	..	57	1699	..	..	..	..
	T	..	..	68	1743	..	..	..	..
Cannanore	H	6	2488	9	1709	..	..	6	2488
	O	37	1732	48	1736	1	975	36	1753
	T	43	1837	57	1732	1	975	42	1858
STATE	H	55	2810	81	2296	..	..	55	2810
	O	305	2394	461	2080	11	1170	294	2440
	T	360	2458	542	2112	11	1170	349	2498

TABLE 2.4 (Contd.)

	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)	(19)	(20)
Ernakulam	1	1890	..	..	..	..	10	2880	3	3095
	8	2612	4	1592	9	1959	59	2416	24	2160
	9	2532	4	1592	9	1959	69	2483	27	2264
Trichur	4	2100	6	2691	..	..	9	2734	2	3085
	12	1759	29	1462	..	..	43	2043	36	1572
	16	1844	35	1673	..	..	52	2163	38	1652
Palghat	..	..	..	..	..	..	3	3331	1	1643
	13	2710	8	2208	7	2394	50	3189	28	2857
	13	2710	8	2208	7	2394	53	3197	29	2815
Malappuram	10	2390	1	2900	1	1347	15	2196	2	3175
	17	1924	6	1991	4	1406	34	1913	18	1512
	27	2097	7	2121	5	1394	49	2000	20	1678
Kozhikode	10	2148	1	183	..	..	7	2048	4	1830
	26	1845	16	1730	15	1413	10	1833	47	1670
	36	1929	17	1639	15	1413	17	1922	51	1683
Cannanore	8	1709	1	1704	..	..	9	2175	6	1788
	31	1783	15	1765	2	793	51	1849	34	1562
	39	1768	16	1761	2	793	60	1898	40	1596
STATE	67	2253	12	2304	2	1583	112	2512	24	2464
	300	2312	109	1704	52	1518	427	2351	339	2019
	367	2309	121	1764	54	1520	539	2385	363	2048

H—High yielding varieties

O—Other varieties

T—All variety

TABLE 3.1  
Response percentage—Winter Paddy 1975

Sl. No.	District	No. of experiments		percentage response
		Planned	Analysed	
(1)	(2)	(3)	(4)	(5)
1.	Trivandrum	72	70	97
2.	Quilon	108	102	94
3.	Alleppey	108	93	86
4.	Kottayam	89	83	93
5.	Idukki	51	49	96
6.	Ernakulam	108	96	89
7.	Trichur	90	90	100
8.	Palghat	90	82	91
9.	Malappuram	72	69	96
10.	Kozhikode	72	68	94
11.	Cannanore	108	100	93
	STATE	968	902	93

TABLE 3.2  
Details of Non-response—Winter Paddy 1975

Sl.No.	District	No. of experiments		No. of experiments lost due to		
		Planned	Analysed	Primary workers' absence (leave transfer etc.)*	Prior harvest by cultivators	Other reasons
(1)	(2)	(2)	(3)	(4)	(5)	(6)
1.	Trivandrum	72	70	1	1	..
2.	Quilon	108	102	4	2	..
3.	Alleppey	108	93	2	13	..
4.	Kottayam	89	83	..	6	..
5.	Idukki	51	49	..	2	..
6.	Ernakulam	108	96	..	12	..
7.	Trichur	90	90	..	..	..
8.	Palghat	90	82	..	8	..
9.	Malappuram	72	69	3	..	..
10.	Kozhikode	72	68	..	4	..
11.	Cannanore	108	100	..	8	..
	STATE	968	902	10	56	..

\*Investigators participated in the NGO. strike.

TABLE 3.3

Work load of primary workers—district—wise allocation during winter—1975

Name of district	No. of primary workers			Total
	4 experi-ments or less	5 to 8 experi-ments	More than 8 experi-ments	
Trivandrum	1	1	7	9
Quilon	2	15	1	18
Alleppey	2	14	2	18
Kottayam	..	9	4	13
Idukki	..	2	4	6
Ernakulam	..	..	12	12
Trichur	..	4	7	11
Palghat	1	13	1	15
Malappuram	3	4	4	11
Kozhikode	3	6	3	12
Cannanore	..	..	12	12
STATE	12	68	57	137

TABLE 3.4

Work load of primary workers according to performance during winter—1975

Name of district	No. of primary workers			Total
	4 experi-ments or less	5 to 8 experi-ments	More than 8 experi-ments	
Trivandrum	2	4	4	10
Quilon	3	14	1	18
Alleppey	4	12	1	17
Kottayam	3	5	5	13
Idukky	1	2	3	6
Ernakulam	..	10	2	12
Trichur	..	2	8	10
Palghat	3	12	..	15
Malappuram	3	5	3	11
Kozhikode	3	8	1	12
Cannanore	1	3	9	13
STATE	23	77	37	137



TABLE 3.5

No. of experiments inspected during winter 1975

Sl. No.	District	No. 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
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
1.	Trivandrum	70	26	34	3	37.1	48.6	4.3
2.	Quilon	102	39	15	8	38.2	14.7	7.8
3.	Alleppey	93	32	40	5	34.4	43.0	5.4
4.	Kottayam	83	35	23	13	42.2	27.7	15.7
5.	Idukki	49	18	18	7	36.7	36.7	14.3
6.	Ernakulam	96	32	27	5	33.3	28.1	5.2
7.	Trichur	90	35	18	2	38.9	20.0	2.2
8.	Palghat	82	20	29	1	24.4	35.4	1.2
9.	Malappuram	69	21	10	6	30.4	14.5	8.7
10.	Kozhikode	68	31	14	0	45.6	20.6	0.0
11.	Cannanore	100	23	43	7	23.0	43.0	7.0
	STATE	902	312	271	57	34.6	30.0	6.3

TABLE 4.1

Estimated Area, Mean yield and production of Rice relating  
to Summer Crop of Paddy—1975

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

(1)	(2)	(3)	(4)	(5)	(6)
27. Kothamangalam	17	292	1977	164	379
28. Muvattupuzha	16	397	2037	141	531
39. Cochin	Nil	Nil	Nil	Nil	Nil
20. Kanayannur	15	367	1739	256	419
31. Kunnathunad	16	1682	1899	148	2099
32. Alwaye	12	3601	1984	388	4694
33. Parur	12	3876	2508	158	6387
ERNAKULAM DISTRICT	88	10215	2162	152	14509
34. Crangannore	6	32	1750	140	37
35. Mukundapuram	18	4790	1974	438	6212
36. Trichur	16	6617	2484	325	10799
37. Thalappally	18	1231	3235	276	2616
38. Chowghat	18	1596	2069	148	2169
TRICHUR DISTRICT	76	14266	2329	213	21833
39. Chittur	9	245	3186	275	513
40. Alathur	10	255	3489	209	585
41. Palghat	16	150	3510	533	346
42. Ottappalam	18	978	2021	195	1299
43. Mannarghat	18	315	2461	272	509
PALGHAT DISTRICT	71	1943	2547	123	3252
44. Perinthalmanna	18	555	1832	243	668
45. Ponnani	15	2873	3677	484	6941
46. Tirur	18	1562	3244	401	3329
47. Ernad	15	471	1929	633	597
MALAPPURAM DISTRICT	66	5461	3215	286	11535
48. Kozhikode	17	598	2412	419	948
49. Quilandy	16	290	2136	336	407
50. Badagara	18	168	3381	320	373
51. South Wynad	18	2769	1789	152	3255
KOZHIKODE DISTRICT	69	3825	1983	131	4983
52. North Wynad	18	979	2243	300	1443
53. Tellicherry	18	311	1618	139	331
54. Cannanore	13	20	2005	306	26
55. Taliparamba	14	36	1402	318	33
56. Hosdurg	17	512	2394	253	805
57. Kasargode	11	2084	2370	451	3245
CANNANORE DISTRICT	91	3942	2271	252	5883
STATE	751	101703	2936	85	196200

TABLE 4.2

Estimated area, mean yield and production of rice relating to summer paddy  
1974 and 1975

Sl. No.	District	Area (hectares)		Mean yield of dry paddy (in kgs/hectare)		Production rice tonnes	
		1974	1975	1974	1975	1974	1975
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
1.	Trivandrum	1140	1177	1521	1975	1139	1527
2.	Quilon	1162	1156	1480	1660	1130	1261
3.	Alleppey	42066	42369	2580	3327	71321	92603
4.	Kottayam	17297	17297	1846	3409	20983	38747
5.	Idukki	52	52	1165	1974	40	67
6.	Ernakulam	10215	10215	1747	2162	11724	14509
7.	Trichur	14266	14266	1841	2329	17258	21833
8.	Palghat	1931	1943	2212	2547	2807	3252
9.	Malappuram	5413	5461	1981	3215	7044	11535
10.	Kozhikode	3868	3825	2286	1983	5809	4983
11.	Cannanore	3520	3942	1940	2271	4464	5883
	STATE	100930	101703	2168	2936	143719	196200

TABLE 4.3

**Summer Crop of Paddy 1975—Analysis of variance of plot yield pooled for the State in Kgs/Plot of 1/400 of an Hectare**

Source of variation	Sum of squares	Degrees of freedom	Mean sum of square (variance)	Variance ratio calculated
(1)	(2)	(3)	(4)	(5)
Between taluk	3026.94	49	61.77	6.28*
Between karas within taluk	420.71	224	1.88	
Within kara within taluk	4692.97	477	9.84	..
All	8140.62	750	..	..

\* Significant at 1% level.

TABLE 4.4

Summer Crop of paddy, 1975

## Frequency distribution of plot yields (Wet paddy)

Sl. No.	Class interval (kg./hectares)	Tivandrum (3)	Qulion (4)	Alleppey (5)	Kottayam (6)	Idukki (7)	Ernakulam (8)	Trichur (9)	Palghat (10)	Malappuram (11)	Kozhikode (12)	Cannanore (13)	State (14)
1.	Below 500	..	6	..	..	..	4	..	..	5	3	4	22
2.	500—699	1	1	..	..	..	1	1	..	..	..	1	5
3.	700—899	4	1	..	..	..	..	3	..	1	..	1	14
4.	900—1099	..	1	1	1	..	1	3	..	2	2	5	16
5.	1100—1299	1	2	..	1	..	2	6	1	2	1	5	21
6.	1300—1499	2	2	..	2	..	4	3	3	1	1	8	26
7.	1500—1699	3	9	4	1	1	7	3	3	2	3	8	44
8.	1700—1899	8	6	3	4	..	10	4	3	4	4	4	51
9.	1900—2099	6	9	3	3	..	6	5	6	3	6	11	57
10.	2100—2299	7	2	4	3	1	7	3	6	4	7	10	54
11.	2300—2499	7	4	3	2	..	11	6	5	2	8	7	55
12.	2500—2699	10	2	3	1	1	10	8	5	3	5	5	53
13.	2700—2899	5	2	5	5	..	5	3	..	4	1	3	33
14.	2900—3099	2	2	5	3	..	4	1	4	3	2	3	29
15.	3100—3299	3	3	10	4	..	..	5	3	5	3	4	40
16.	3300—3499	2	3	10	2	..	7	2	3	3	4	..	36
17.	3500—3699	1	2	6	2	..	2	3	4	1	2	2	25
18.	3700—3899	..	2	8	4	..	3	1	7	2	2	3	31
19.	3900—4099	1	1	7	..	..	2	2	5	1	3	1	24
20.	4100 and above	3	1	26	22	..	2	14	13	18	10	6	115
21.	All	66	61	100	60	3	88	76	71	66	69	91	751

TABLE No. 4.5

## The Results of driage Experiments—Summer paddy, 1975

I.No.	District	No. of driages experi- ments		(4)	(5)	Total yield after driage operation (kgms.)	Driage ratio (percentage)
		Planned	Analysed				
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(7)
1.	Trivandrum	12	11	2.750	2.324	84.5	
2.	Quilon	12	11	2.725	2.409	88.4	
3.	Alleppey	18	19	4.750	4.451	93.7	
4.	Kottayam	10	10	2.500	2.270	90.8	
5.	Idukki	1	1	0.250	0.235	94.0	
6.	Ernakulam	18	18	4.500	3.879	86.2	
7.	Trichur	13	13	3.250	2.809	86.4	
8.	Palghat	12	11	2.750	2.431	88.4	
9.	Malappuram	12	12	3.000	2.623	87.4	
10.	Kozhikode	12	11	2.750	2.516	91.5	
11.	Cannanore	15	18	4.500	4.097	91.0	
	STATE	135	135	33.725	30.044	89.1	

TABLE No. 4.6

Independent estimate of mean yield of paddy based on harvest stage inspection during summer 1975.

District	No. of experiments		Mean yield of paddy (kgs./hect.)		Drriage ratio used for columns 4 and 5
	Planned for harvest stage inspection	Inspected at harvest stage	before drriage	After drriage	
(1)	(2)	(3)	(4)	(5)	(6)
Trivandrum	31	24	2257	1907	0.845
Quilon	30	19	2279	2015	0.884
Alleppey	47	35	3333	3123	0.937
Kottayam	28	23	3607	3275	0.908
Idukki	2	1	2600	2444	0.940
Ernakulam	45	26	2403	2071	0.862
Trichur	34	30	2626	2269	0.864
Palghat	36	15	3526	3117	0.884
Malappuram	31	19	2574	2250	0.874
Kozhikode	31	12	2309	2113	0.915
Cannanore	45	23	1884	1714	0.910
STATE	360	227	2704	2409	0.891



TABLE 4.7

Estimated mean yield of dry paddy (Kgs./hect.) during  
Summer Season From 1971 to 1975

Taluk and District	1971	1972	1973	1974	1975
(1)	(2)	(3)	(4)	(5)	(6)
1. Neyyattinkara	2009	2380	2072	1988	2211
2. Trivandrum	1795	1708	1264	1895	2109
3. Nedumangad	1567	2262	1441	1585	1764
4. Chirayinkil	2273	1587	711	999	1789
TRIVANDRUM DISTRICT	1939	1867	1192	1521	1975
5. Quilon	2967	1472	1637	1646	1141
6. Kottarakkara	2671	962	1036	752	1385
7. Kunnathur	1654	..	2052	1306	1749
8. Pathanapuram	..	..	..	..	..
9. Pathanamthitta	3545	1938	1305	1819	2779
10. Karunagappally	2653	2188	2195	1561	1865
QUILON DISTRICT	2681	1765	1834	1480	1660
11. Karthigappally	4118	2631	4286	2577	3233
12. Mavelikara	2852	3142	2886	2845	3077
13. Chengannur	3857	3834	4609	2205	3384
14. Thiruvalla	3849	3084	2484	2102	3151
15. Kuttanad	4494	4494	3034	2682	3495
16. Ambalapuzha	3098	3059	2712	2260	2685
17. Sherthalai	..	..	..	..	..
ALLEPPEY DISTRICT	3424*	3447*	2885*	2580	3327
18. Changanacherry	3219	4806	4062	3474	4850
19. Kanjirappally	..	2677	..	..	..
20. Kottayam	2783	3509	3267	1425	3199
21. Vaikom	3236	2663	2741	1340	2342
22. Meenachil	3080	3225	2779	1859	2300
KOTTAYAM DISTRICT	2938	3655	3351	1846	3409
23. Peermade	..	..	1872	1165	1974
24. Devikulam	..	..	..	..	..
25. Udumbanchola	..	..	..	..	..
26. Thodupuzha	..	..	..	..	..
IDUKKI DISTRICT	..	..	1872	1165	1974

\*Pooled estimates.

TABLE—4.7 (Contd.)

	(1)	(2)	(3)	(4)	(5)	(6)
27. Kothamangalam	}	2147	2314	1483	1506	1977
28. Muvattupuzha						2037
29. Cochin		Nil.				
30. Kanayannur		3087	3171	1029	791	1739
31. Kunnathunad		1836	1950	1701	1725	1899
32. Alwaye		2552	2275	2218	1878	1984
33. Parur		2547	1684	1719	1768	2508
ERNAKULAM DISTRICT		2413	2026	1855	1747	2162
34. Crangannore		2677	1801	1947	1435	1750
35. Mukundapuram		3104	2698	2384	2052	1974
36. Trichur		2312	2252	3012	1689	2484
37. Thalappally		3791	3156	5163	2398	3235
38. Chowghat		2346	2529	2007	1419	2069
TRICHUR DISTRICT		2753	2538	2857	1841	2329
39. Chittur		..	3378	2099	2553	3186
40. Alathur		..	3378	2099	2375	3489
41. Palghat		..	3378	2099	1817	3510
42. Ottappalam		..	3378	2099	2290	2021
43. Mannarghat		..	..	..	1749	2461
PALGHAT DISTRICT		..	3377	2099	2212	2547
44. Perinthalmanna		..	2219	2481	1816	1832
45. Ponnani		2327	5647	6635	1753	3677
46. Tirur		2010	3399	5624	2568	3244
47. Ernad		..	2181	2212	1615	1929
MALAPPURAM DISTRICT		2221	4369	5494	1981	3215
48. Kozhikode		4108	3279	3036	2423	2412
49. Quilandy		..	2138	2137	2775	2136
50. Badagara		..	2138	2130	2661	3381
51. South Wynad		1650	2432	2273	2180	1789
KOZHIKODE DISTRICT		2107	2526	2376	2286	1983
52. North Wynad		2229	1952	2425	1906	2243
53. Tellicherry		..	2225	2227	1779	1618
54. Cannanore		..	2225	2215	2100	2005
55. Taliparamba		..	2225	2215	2200	1402
56. Hosdurg		1805	2564	2119	2195	2394
57. Kasargode		2696	1977	1904	1887	2370
CANNANORE DISTRICT		2429	2093	2097	1940	2271
STATE		2984*	3151*	2918*	2168	2936

\*Pooled estimates.

TABLE 3.1

Estimated Area, Mean yield and production of High Yielding and other varieties of paddy during summer 1975

Sl. No.	District	No. of experiments analysed		% of H. Y. V. experiments to total No. of experiments	High Yielding Varieties		
		H. Y. V.	Total		Area (hect.)	Mean yield of dry paddy (kg/hect.)	Production of rice (tonnes)
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
1.	Trivandrum	44	66	66.67	785	2053	1059
2.	Quilon	3	61	4.92	57	1947	73
3.	Alleppey	36	100	36.00	15253	3517	35245
4.	Kottayam	16	60	26.67	4613	3390	10274
5.	Idukki	..	3	..	..	..	..
6.	Ernakulam	29	88	32.95	3366	2167	4792
7.	Trichur	37	76	48.68	6945	2932	13378
8.	Palghat	36	71	50.70	985	3400	2200
9.	Malappuram	35	66	53.03	2896	3261	6205
10.	Kozhikode	45	69	65.22	2495	2790	4573
11.	Cannanore	40	91	43.96	1733	2276	2591
	STATE	321	751	42.74	39128	3127	80390

TABLE 5.1 (contd.)

Sl. No.	District	Other varieties			All varieties		
		Area (hect.)	Mean yield of dry paddy (kg/hect.)	Production of rice (tonnes)	Area (hect.)	Mean yield of dry paddy (kg/hect.)	Production of rice (tonnes)
(1)	(2)	(9)	(10)	(11)	(12)	(13)	(14)
1.	Trivandrum	392	1817	468	1177	1975	1527
2.	Quilon	1099	1645	1188	1156	1660	1261
3.	Alleppey	27116	3219	57358	42369	3327	92603
4.	Kottayam	12684	3417	28473	17297	3409	38747
5.	Idukki	52	1974	67	52	1974	67
6.	Ernakulam	6849	2159	9717	10215	2162	14509
7.	Trichur	7321	1758	8455	14266	2329	21833
8.	Palghat	958	1671	1052	1943	2547	3252
9.	Malappuram	2565	3163	5330	5461	3215	11535
10.	Kozhikode	1330	469	410	3825	1983	4983
11.	Cannanore	2209	2268	3292	3942	2271	5883
	STATE	62575	2817	115810	101703	2936	196200

TABLE No. 5.2  
**Estimated Area, Mean Yield and production of High Yielding varieties  
of paddy summer 1974 and 1975**

Sl. No.	District	Area (hectares)			Mean yield dry paddy (kg hect.)		Production of rice (tonnes)	
		1974	1975	(3)	1974	1975	1974	1975
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	
1.	Trivandrum	882	785	1653	2053	958	1059	
2.	Quilon	106	57	1368	1947	95	73	
3.	Alleppey	34747	15253	2476	3517	56524	35245	
4.	Kottayam	11433	4613	2166	3390	16270	10274	
5.	Idukki	35	..	1219	..	28	..	
6.	Ernakulam	2789	3366	1255	2167	2300	4792	
7.	Trichur	7604	6945	2078	2932	10381	13378	
8.	Palghat	1050	985	2595	3400	1790	2200	
9.	Malappuram	3453	2896	2092	3261	4746	6205	
10.	Kozhikode	2425	2495	2711	2790	4319	4573	
11.	Cannanore	1380	1733	2167	2276	1965	2591	
	STATE	65904	39128	2295	3127	99376	80390	

TABLE 5.3

Distribution of fields with high yielding varieties of paddy according to the varieties grown during summer 1975

Sl. No.	District	No. of experiments conducted		(4)	(5)	% of experiments to total No. of experiments												
		H. Y. V.	Total			H. 4	Jaya	Thriuvelli	I. R. 8	I. R. 5	T. N. I.	Aswathi	Annapurna	I. R. 20	Bharathi	Rohini	Jothi	Mashuri
(1)	(2)	(3)	(4)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)
1.	Trivandrum	44	66	66.67	1	8	28	4	1	1	1							
2.	Quilon	3	61	4.92	..	..	1	..	..	..	..	..	2	..	..	..	..	..
3.	Alleppey	36	100	36.00	9	10	13	1	..	..	..	..	..	1	..	..	2	..
4.	Kottayam	16	60	26.67	7	2	4	1	..	..	..	..	1	1	..	..	..	..
5.	Idukki	..	3	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
6.	Ernakulam	29	88	32.95	..	5	13	6	..	..	..	..	2	1	1	1	..	..
7.	Trichur	37	76	48.68	..	4	25	3	..	..	..	..	3	..	..	..	2	..
8.	Palghat	36	71	50.70	1	6	17	8	..	..	..	..	..	1	2	..	1	..
9.	Malappuram	35	66	53.03	..	3	22	3	..	..	..	..	3	..	..	2	1	1
10.	Kozhikode	45	69	65.22	3	9	13	11	..	1	..	..	8	..	..	..	..	..
11.	Cannanore	40	91	43.96	1	5	7	4	..	12	..	..	8	..	..	3	..	..
	STATE	321	751	42.74	22	52	143	41	1	14	1	27	3	4	6	6	1	

TABLE 5.4

District-wise yield rate for high yielding and other varieties of paddy according to cultivation practices during summer 1975

District	Variety	Irrigated			Un irrigated			Irrigated but not manured			Irrigated & manured						
		No. of experiments	Mean yield of dry paddy kgs./hect.	(3)	(4)	No. of experiments	Mean yield of dry paddy kgs./hect.	(5)	(6)	No. of experiments	Mean yield of dry paddy kgs./hect.	(7)	(8)	No. of experiments	Mean yield of dry paddy kgs./hect.	(9)	(10)
Trivandrum	H	34	2122	10	1818	..	..	34	2122	..	..	34	2122	..	..	34	2122
	O	14	1925	8	1534	..	..	14	1925	..	..	14	1925	..	..	14	1925
	T	48	2065	18	1692	..	..	48	2065	..	..	48	2065	..	..	48	2065
Quilon	H	3	1947	..	..	..	..	3	1947	..	..	3	1947	..	..	3	1947
	O	29	1985	29	1719	..	..	29	1985	..	..	29	1985	..	..	29	1985
	T	32	1981	29	1719	..	..	32	1981	..	..	32	1981	..	..	32	1981
Alleppey	H	22	3688	14	3249	..	..	22	3688	..	..	22	3688	..	..	22	3688
	O	25	3057	39	2995	..	..	25	3057	..	..	25	3057	..	..	25	3057
	T	47	3352	53	3062	..	..	47	3352	..	..	47	3352	..	..	47	3352
Kottayam	H	13	3357	3	3535	..	..	13	3357	..	..	13	3357	..	..	13	3357
	O	34	3231	10	3242	..	..	34	3231	..	..	34	3231	..	..	34	3231
	T	47	3266	13	3310	..	..	47	3266	..	..	47	3266	..	..	47	3266
Idukki	H	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
	O	..	..	3	1974	..	..	..	..	3	1974	..	..	..	..	..	..
	T	..	..	3	1974	..	..	..	..	3	1974	..	..	..	..	..	..

District	Chemically manured		Other manured		Neither irrigated nor manured		Treated with pesticides		Not treated with pesticides	
	No. of experiments	Mean yield of dry paddy kgs./hect.	No. of experiments	Mean yield of dry paddy kgs./hect.	No. of experiments	Mean yield of dry paddy kgs./hect.	No. of experiments	Mean yield of dry paddy kgs./hect.	No. of experiments	Mean yield of dry paddy kgs./hect.
(1)	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)	(19)	(20)
Trivandrum	10	1818	..	1497	..	..	40	2138	4	1208
	7	1539	1	1497	..	..	17	1895	5	1401
Quilon	17	1703	1	1497	..	..	57	2066	9	1315
	26	1827	3	779	..	..	1	1947	2	1947
	26	1827	3	779	..	..	33	1982	25	1680
Alleppey	14	3249	3	779	..	..	34	1981	27	1700
	38	3029	1	1710	..	..	34	3576	2	2507
	52	3088	1	1710	..	..	58	3026	6	2949
Kottayam	3	3535	..	..	..	..	92	3229	8	2839
	10	3242	..	..	..	..	16	3390	..	..
	13	3310	..	..	..	..	43	3250	..	..
Idukki	..	..	..	..	..	..	59	3288	..	..
	3	1974	..	..	..	..	..	..	..	..
	3	1974	..	..	..	..	..	..	3	1974
	3	1974	..	..	..	..	..	..	3	1974



(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
Ernakulam	H	29	2167					29	2167
	O	57	1936		1703			57	1936
	T	86	2014	2	1703			86	2014
Trichur	H	37	2932					37	2932
	O	38	1882	1	1235		889	37	1909
	T	75	2400	1	1235		889	74	2421
Palghat	H	27	3506	9	3082			27	3506
	O	27	2399	8	1655			27	2399
	T	54	2953	17	2410			54	2953
Malappuram	H	35	3261					35	3261
	O	28	2076	3	1058			28	2076
	T	63	2734	3	1058			63	2734
Kozhikode	H	10	2667	35	2825			10	2667
	O	7	2345	17	1547			7	2345
	T	17	2534	52	2407			17	2534
Cannanore	H	19	2278	21	2275			19	2278
	O	34	1919	17	1509			34	1919
	T	53	2048	38	1932			53	2048
STATE	H	229	2851	92	2703			229	2851
	O	293	2243	137	2119		889	292	2248
	T	522	2510	229	2354		889	521	2513

H—High yielding  
 O—Other varieties  
 T—All varieties

	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)	(19)	(20)
<b>Ernakulam</b>	..	1703	..	..	..	..	26	2180	3	2047
	2	1703	..	..	..	..	50	1924	9	1951
	2	1703	..	..	..	..	76	2012	12	1975
<b>Trichur</b>	..	..	..	..	..	..	35	2944	2	2721
	1	1235	..	..	..	..	34	1901	5	1624
	1	1235	..	..	..	..	69	2430	7	1937
<b>Palghat</b>	9	3082	..	..	..	..	30	3632	6	2238
	3	1667	5	1647	..	..	8	2627	27	2110
	12	2728	5	1647	..	..	38	3420	33	2133
<b>Malappuram</b>	..	..	..	..	..	..	33	3355	2	1706
	2	1234	1	707	..	..	23	2007	8	1894
	2	1234	1	707	..	..	56	2801	10	1856
<b>Kozhikode</b>	30	2980	5	1897	..	..	25	2973	20	2561
	10	1517	7	1590	..	..	11	1739	13	1814
	40	2614	12	1718	..	..	36	2596	33	2267
<b>Cannanore</b>	18	2361	2	2139	1	1008	31	2408	9	1824
	15	1601	1	182	1	1471	43	1851	8	1410
	33	2016	3	1487	2	1240	74	2084	17	1629
<b>STATE</b>	84	2785	7	1966	1	1008	271	2921	50	2196
	117	2248	19	1358	1	1471	320	2311	110	1889
	201	2472	26	1522	2	1240	591	2591	160	1985

TABLE No. 6. 1  
Response Percentages—Summer paddy 1975

Sl. No.	District	No. of Experiments		
		Planned	Analysed	Percentage response
(1)	(2)	(3)	(4)	(5)
1.	Trivandrum	72	66	92
2.	Quilon	66	61	92
3.	Alleppey	113	100	88
4.	Kottayam	61	60	98
5.	Idikki	3	3	100
6.	Ernakulam	108	88	81
7.	Trichur	78	76	97
8.	Palghat	84	71	85
9.	Malappuram	72	66	92
10.	Kozhikode	72	69	96
11.	Cannanore	108	91	84
	State	837	751	90

TABLE No. 6.2  
Details of non-response—Summer paddy 1975\*

Sl. No.	District	No. of experiments		No. of experiments lost due to		Other reasons
		Planned	Analysed	Primary workers' absence (leave transfer etc.)	Prior harvest by cultivators	
(1)	(2)	(3)	(4)	(5)	(6)	(7)
1.	Trivandrum	72	66	..	6	
2.	Quilon	66	61	..	5	
3.	Alleppey	113	100	..	13	
4.	Kottayam	61	60	..	1	
5.	Idukki	3	3	..	..	
6.	Ernakulam	108	88	..	20	
7.	Trichur	78	76	..	2	
8.	Palghat	84	71	..	6	7*
9.	Malappuram	72	66	..	6	
10.	Kozhikode	72	69	..	3	
11.	Cannanore	108	91	..	17	
	State	837	751	..	79	7

\* could not be harvested during the reference period of the survey

**TABLE 6.3**  
**Work load of primary workers—District-wise allocation during summer 1975**

Sl. No.	Name of district	1. No. of primary workers			Total
		4 experiments or less	5 to 8 experiments	More than 8 experiments	
(1)	(2)	(3)	(4)	(5)	(6)
1.	Trivandrum	1	4	5	10
2.	Quilon	6	8	..	14
3.	Alleppey	1	10	5	16
4.	Kottayam	1	10	1	12
5.	Idukki	1	..	..	1
6.	Ernakulam	..	12	..	12
7.	Trichur	..	10	1	11
8.	Palghat	5	7	3	15
9.	Malappuram	2	5	4	11
10.	Kozhikode	..	6	4	10
11.	Cannanore	..	3	9	12
	State	17	75	32	124

**TABLE 6.4**  
**Work load of primary workers according to performance during Summer 1975 in each district**

Sl. No.	District	No. of primary workers			Total
		4 experiments or less	5 to 8 experiments	More than 8 experiments	
(1)	(2)	(3)	(4)	(5)	(6)
1.	Trivandrum	1	7	2	10
2.	Quilon	8	6	..	14
3.	Alleppey	..	13	2	15
4.	Kottayam	4	8	..	12
5.	Idukki	1	..	..	1
6.	Ernakulam	1	10	1	12
7.	Trichur	4	2	4	10
8.	Palghat	1	10	1	12
9.	Malappuram	3	4	3	10
10.	Kozhikode	1	5	4	10
11.	Cannanore	2	9	3	14
	STATE	26	74	20	120

TABLE 6.5

No. of experiments inspected during summer 1975

District	No. of experiments analysed	No. of experiments inspected at			Percentage of experiments inspected at		
		Harvest stage	Preharvest stage	Post harvest stage	Harvest stage	Preharvest stage	Post harvest stage
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Trivandrum	66	24	12	4	36.4	18.2	6.1
Quilon	61	19	10	5	31.1	16.4	8.2
Alleppey	100	35	13	4	35.0	13.0	4.0
Kottayam	60	23	6	8	38.3	10.0	13.3
Idikki	3	1	1	..	33.3	33.3	Nil
Ernakulam	88	26	12	6	29.5	13.6	6.8
Trichur	76	30	13	8	39.5	17.1	10.5
Palghat	71	15	6	..	21.1	8.5	Nil
Malappuram	66	19	10	4	28.8	15.2	6.1
Kozhikode	69	12	6	0	17.4	8.7	Nil
Cannanore	91	23	37	4	25.3	40.7	4.4
STATE	751	227	126	43	30.2	16.8	5.7

TABLE No. 7.1

Season wise area, mean yield and Production of high yielding varieties of paddy during 1974-75

Sl. No.	District	Area under H.Y.V. (Hects)				Mean yield of HYV (dry paddy in kg/hect)				Production of rice (in tonnes)				
		Autumn 1974	Winter 1975	Summer 1975	Total 1974-75	Autumn 1974	Winter 1975	Summer 1975	Annual average 1974-75	Autumn 1974	Winter 1975	Summer 1975	Total 1974-75	
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)		
1. Trivandrum	796	2307	785/	3888	2376	2514	2053	2393	1243	3810	1059	6112		
2. Quilon	3420	576	57	4053	2398	1878	1947	2318	5388	711	73	6172		
3. Alleppey	7694	3295	15253	26242	1709	2257	3517	2828	8639	4886	35245	48770		
4. Kottayam	1889	6187	4613	12689	2390	2450	3390	2783	2966	9959	10274	23199		
5. Idukki	1099	2813	..	3912	2743	3295	..	3140	1981	6090	..	8071		
6. Ernakulam	9083	5453	3366	17902	2613	2930	2167	2626	15593	10497	4792	30882		
7. Trichur	8836	7336	6945	23117	2072	2798	2932	2561	12028	13486	13378	38892		
8. Palghat	28032	4015	985	33032	3288	2909	3400	3245	60555	7674	2200	70429		
9. Malappuram	7230	8861	2896	18987	1876	2311	3261	2290	8911	13454	6205	28570		
10. Kozhikode	2488	5687	2495	10670	1307	1969	2790	2006	2136	7357	4573	14066		
11. Cannanore	6970	4458	1733	13161	2431	2020	2276	2271	11132	5916	2591	19639		
	77537	50988	39128	167653	2563	2503	3127	2676	130572	83840	80390	294802		

TABLE 7.2  
Season-wise area, mean yield and production of rice in each district during 1974-75

Districts	Area (hectares)		Mean yield (dry paddy in kg/hect.)													
	Production of rice (tonnes)		1974			1975			1974			1975			1975	
	Autumn	Winter	Summer	Total	Autumn	Winter	Summer	Annual Average	Autumn	Winter	Summer	Total	Autumn	Winter	Summer	Total
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)
Trivandrum	18561	20188	1177	39926	1976	2444	1975	2212	24097	32413	1527	58037				
Quilon	21161	29369	1156	51686	2084	2488	1650	2304	28977	48003	1261	78241				
Alleppey	30518	23572	42369	96459	1673	2007	3327	2481	33546	31082	92603	157231				
Kottayam	8030	19019	17297	44346	2174	2358	3409	2735	11470	29463	38747	79680				
Idukki	4031	9189	52	13272	2359	2694	1974	2589	6248	16264	67	22579				
Ernakulam	37378	40270	10215	87863	1886	2441	2162	2173	46321	64586	14509	125416				
Trichur	34569	60131	14266	108966	1923	2140	2329	2096	43669	84529	21833	150031				
Palghat	100906	82274	1943	185123	2792	3175	2547	2959	185091	171607	3252	359953				
Malappuram	50596	35961	5461	92018	1503	1812	3215	1725	49669	42804	11535	101308				
Kozhikode	24875	35146	3825	63846	1335	1900	1983	1685	21817	43875	4983	70675				
Cannanore	64302	29717	3942	97961	1996	1924	2271	1985	84337	37560	5883	127780				
State	394927	384836	101703	881466	2064	2382	2936	2303	535545	602186	196200	1333931				

TABLE 7.3  
Season-wise area, mean yield and production of rice in Kerala during the period from 1968-69 to 74-75

Agricultural Year	Virippu (Autumn crop)			Mundakan (Winter crop)			Punja (Summer crop)			Total			
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)
	Area in hectares	Mean yield of dry paddy (kg/hect.)	Production of rice in tonnes	Area in hectares	Mean yield of dry paddy (kg/hect.)	Production of rice in tonnes	Area in hectares	Mean yield of dry paddy (kg/hect.)	Production of rice in tonnes	Area in hectares	Mean yield of dry paddy (kg/hect.)	Production of rice in tonnes	
1968-69	394879	2009	521258	380620	2286	571748	98372	2450	158348	873871	2179	1251354	@
1969-70	393747	2016	521443	382171	2097	526570	98141	2767	178400	874059	2136	1226413	@
1970-71	394798	2077	538886	381971	2259	566934	98061	2984	192185	874830	2259	1298005	@
1971-72	395298	2126	552246	381971	2378	596808	97888	3151	202684	875157	2351	1351738	@
1972-73	391900	2237	576192	382171	2426	609234	99623	2918	190941	873694	2527	1376367	@
1973-74	392765	2347	605595	380980	2028	507755	100930	2168	143719	874675	2187	1257069	@
1974-75	394927	2064	535545	384836	2382	602186	101703	2936	196200	881466	2303	1333931	

@ Pooled estimates of state Series and IADP series of experiments



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18