GOVERNMENT OF KERALA

CONSOLIDATED RESULTS OF CROP ESTIMATION SURVEYS ON PADDY AND TAPIOCA 1975-'76

BUREAU OF ECONOMICS AND STATISTICS, KERALA
TRIVANDRUM

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37/1823/B.

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FOREWORD

The present report "Consolidated Results of Crop Estimation Surveys on Paddy and Tapioca 1975-76" is prepared as the State counterpart of the All India report on the subject and as recommended by the conference of the State Statisticians in charge of crop estimation surveys. The report gives brief descriptions on the methodology and conduct of the crop cutting surveys conducted during 1975-76 on paddy and tapioca which are the most important food crops cultivated in the State.

The important results of the survey including the estimated mean yield of paddy and the production of rice during each of the three paddy seasons viz. Autumn, Winter and Summer in each district and the State are given in table 1 to 7 in the Appendix. The results of the crop cutting survey on tapioca conducted during the year 1975-76 are given in tables 8 and 9 in the Appendix.

Trivandrum,
21-3-1977.

N. GOPALAKRISHNAN NAIR,
Director.

CONSOLIDATED RESULTS OF CROP ESTIMATION SURVEYS ON PADDY AND TAPIOCA 1975-76.

1. Introduction

This is a brief review of the crop estimation surveys on Paddy and Tapioca conducted in Kerala State, by the Bureau of Economics and Statistics during 1975-76. The salient features of these surveys are described in this report in a comprehensive manner. In Kerala crop cutting surveys are conducted only on two seasonal crops viz. Paddy and Tapioca as they are the most important food crops cultivated in the State. The important findings of the surveys such as yield estimates of rice and tapioca, area under high yielding varieties of paddy, yield rates of irrigated and unirrigated plots of paddy etc. are presented in the tables appended to this report.

2. Objective, Coverage and Design

The primary object of these surveys is to obtain through crop cutting experiments, precise estimates of average yield per hectare of paddy at the taluk level and tapioca at the district level and to estimate the average yield and total out-turn of the crops for the State.

Though the surveys cover all the eleven districts in the state, it is limited to the taluks where the crop is actually raised during each season. A crop cutting experiment consists of locating and marking of plot of specified size by the principle of random sampling in a randomly selected field and harvesting, thrushing and recording the weight of produce obtained from the plot. In the case of paddy in a sub-samples of experiments further processing of the harvested produce is done for determining the percentage recovery of dry grain.

A stratified multi-stage random sampling design is adopted for the crop cutting survey on paddy. The taluk is taken as the stratum and within each taluk, villages are selected as the first stage sampling units. In each selected village, survey sub-division numbers are selected to form second stage units and within each survey sub-division number, a square plot of side five metres is selected as the ultimate sampling unit. In the case of survey sub-division numbers having more than one kandom/patch, one kandom will be selected and in that kandom a square plot of side five metres will be located. The produce of the plot is harvested, threshed and winnowed and the weight of the grain is recorded. Driage ratio is determined by processing sample grains taken from a sub sample of the plots harvested.

Crop cutting surveys on paddy are conducted separately during each of the three seasons viz. Autumn (Virippu) Winter (Mundakan) and Summer (Punja). In the case of tapioca, the survey is conducted only once in an year.

Regarding the conduct of crop cutting survey on paddy, six villages are chosen in each stratum (taluk) by simple random sampling method and from each selected village, a sample of three plots is selected by systematic sampling method. Thus normally in a taluk eighteen experiments are conducted during each crop season.

As far as tapioca is concerned the survey is conducted in all the taluks where the crop is raised during the year under review. During the year 1975-76, the "Timely Reporting Scheme" was introduced in the State for the collection of agricultural statistics. For this purpose 10% of revenue villages were selected in each taluk and the total number of revenue villages selected in the State was 134 in 1975-76. The crop cutting survey on Tapioca was conducted in 132 revenue villages where the crop was available at the rate of 2 experiments per Investigator posted for Timely Reporting Scheme in the State.

From the list of dry land survey sub-division numbers allotted to each Investigator, five dry land survey sub-division numbers are selected by simple random sampling method and the Investigator visits these plots in the order of selection for getting 2 suitable plots where crop cutting experiments on tapioca can be conducted. If only one plot is obtained or if no plot is obtained from among the first five plots selected either due to non-availability of the crop or due to the unsuitability of conducting crop cutting experiments, another set of five dry land survey sub-division numbers are selected as before to get the remaining number of experiment(s). If necessary this process is repeated, until he gets 2 suitable plots or all the dry land survey sub-division numbers allotted to him are exhausted. It is essential that in each selected plot there should be a minimum area of 2 x 2 metres under tapioca. If a selected plot contains more than one patch under tapioca, satisfying the above requirements, then one patch is selected by simple random sampling method. In the selected plot/patch a square cut of 2 x 2 metres will be located at random for conducting the experiment.

All the tapioca plants inside the 2 x 2 metres square plot will be harvested. The produce will be cleaned by removing the soil sticking to the tubers and then weighed.

3. Sample size

The total number of experiments planned for the survey on paddy during 1975-76, according to seasons are indicated below.

TABLE 1

Number of experiments planned for paddy, 1975-76

Sl. No.	Season	Number of experiments planned
(1)	(2)	(3)
1	Autumn 1975	948
2	Winter 1976	969
3	Summer 1976	837
	Total	2754

The district-wise break up of the total number of experiments planned for the crop cutting survey on paddy during 1975-76 is given in table 1 in the appendix.

The total number of experiments planned in the case of tapioca during the year under review was 510. The district-wise split up of the total number of experiments planned for the survey is given in the subjoined table.

TABLE 2

Number of experiments planned for tapioca, 1975-76

Sl. No.	District	Number of experiments planned
(1)	(2)	(3)
1	Trivandrum	44
2	Quilon	64
3	Alleppey	24
4	Kottayam	28
5	Idukki	24
6	Ernakulam	54
7	Trichur	50
8	Palghat	58
9	Malappuram	44
10	Kozhikode	40
11	Cannanore	80
	STATE	510

4. Field work

The field work of the surveys comprising selection of fields, identification of selected fields, location and marking of plots for crop cutting experiments, recording the weight after usual processing of the harvested produce is carried out by the field staff of the Bureau of Economics and Statistics. The field work relating to the surveys is attended to by the Investigators under the supervision of the Statistical Inspectors and District Statistical Officers. It is reported that 129 Investigators attended to the field work of the crop cutting survey on paddy during Autumn 1975, 158 during Winter 1976 and 132 during Summer 1976.

The planning of the survey, quality check of the work of the field staff and the statistical analysis of the data collected are done at the Directorate of the Bureau of Economics and Statistics.

5. Training

Training classes were conducted at the district headquarters to impart training to all the Investigators engaged in the conduct of crop cutting experiments for paddy and tapioca. Officers from the headquarter of the Bureau also participated in the training programme.

6. Response

The number of experiments planned, analysed and the percentage responses in respect of paddy during the three seasons in each district are given in table No. 2 in the appendix. Similar information relating to tapioca is given in table No. 8 in the appendix.

7. Supervision

The supervision of the field work is done by the Statistical Inspectors and District Statistical Officers. Since 1967-68 a fixed programme for inspection at the harvest stage in case of crop cutting experiments on paddy has been arranged so that in each taluk seven out of 18 experiments are to be inspected at harvest stage during each paddy crop season at the rate of six experiments by the Statistical Inspector and one by the District Statistical Officer. The Additional District Statistical Officer has also been instructed to conduct harvest stage inspection at the rate of one experiment in each taluk from Summer 1976. Over and above this, inspection at pre-harvest and post-harvest stages will also have to be conducted by the Statistical Inspectors and District Statistical Officers.

Number of experiments inspected at the 3 stages in each of the three seasons during 1975-76 in the State are indicated below in percentages.

TABLE 3

Number of experiments inspected (in percentage)

Sl. No.	Season	Harvest stage	Pre-harvest stage	Post-harvest stage
(1)	(2)	(3)	(4)	(5)
1.	Autumn 75	39.0	30.6	7.2
2.	Winter 76	38.2	23.8	4.9
3.	Summer 76	38.6	18.4	4.8

Independent estimates of average yield of paddy based on experiments inspected at harvest stage are given in Table 3 in the Appendix.

As far as the crop cutting survey on tapioca is concerned, the Statistical Inspector has to conduct harvest stage inspection on 5 experimental plots or 50% of the experiments planned in his taluk, which ever is less, while the District Statistical Officer has to supervise personally the harvest in 3 experimental plots in his district.

8. Results

The estimated mean yield of paddy together with percentage sampling error and the total production of rice during the three seasons of 1975-76 are given in table 4 in the Appendix.

Usually the results of the state series of experiments and IADP series of experiments conducted in Alleppey and Palghat districts are pooled for framing combined estimates. But the results of these two series of experiments are found to be not poolable in all the three seasons in Alleppey districts and Autumn season in Palghat district, as the test for non-significance of means turned out to be highly significant. Pooled estimate has been framed for Palghat district in Winter season. In Summer season IADP series of experiments are not conducted in Palghat district and as such pooling of results of these two series of experiments does not arise during Summer season in Palghat district. The yield rates and production of rice obtained through two series of experiments and the pooled estimates of these are given in table 5.

The results of experiments conducted for ascertaining the percentage recovery of dry paddy (dry grain) from the wet harvest produce are given in table 6 in the Appendix. The mean yield of paddy per hectare estimated for irrigated and unirrigated areas in respect of each district and the state are also given in this table.

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

The statement showing the percentage of area under different improved agricultural practices during each of the three paddy crop seasons are given in table 7.1, 7.2 and 7.3 in the Appendix.

The estimated yield rate and the total production of raw tapioca in each district and in the state are presented in Table 9.

APPENDICES

TABLE No. 1

Crop Coverage and Sample Size-Rice 1975-76

Sl. No.	District	Total number of experiments planned for the year			
		Autumn	Winter	Summer	Total
(1)	(2)	(3)	(4)	(5)	(6)
1.	Trivandrum	72	72	72	216
2.	Quilon	108	108	66	282
3.	Alleppey	126	108	108	342
4.	Kottayam	84	78	63	225
5.	Idikki	36	63	3	102
6.	Ernakulam	126	108	108	342
7.	Trichur	90	90	78	258
8.	Palghat	90	90	87	267
9.	Malappuram	72	72	72	216
10.	Kozhikode	54	72	72	198
11.	Cannanore	90	108	108	306
	State	948	969	837	2754

TABLE No. 2

Response Percentages

Crop : Paddy

Year 1975-76

District	Autumn			Winter			Summer			Total		
	No. of experiments			No. of experiments			No. of experiments			No. of experiments		
	Planned	Analysed	Percentage Response	Planned	Analysed	Percentage Response	Planned	Analysed	Percentage Response	Planned	Analysed	Percentage Response
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)
Trivandrum	72	71	99	72	70	97	72	70	97	216	211	98
Quilon	108	106	98	108	107	99	66	66	100	282	279	99
Alleppey	126	112	89	108	104	96	108	102	94	342	318	93
Kottayam	84	78	93	78	77	99	63	62	98	225	217	96
Idukki	36	33	92	63	62	98	3	3	100	102	98	96
Ernakulam	126	109	87	108	86	80	108	103	95	342	298	87
Trichur	90	88	98	90	74	82	78	74	95	258	236	91
Palghat	90	80	89	90	77	86	87	83	95	267	240	90
Malappuram	72	72	100	72	69	96	72	68	94	216	209	97
Kozhikode	54	50	93	72	68	94	72	69	96	198	187	94
Cannanore	90	90	100	108	107	99	108	106	98	306	303	99
State	948	889	94	969	901	93	837	806	96	2754	2596	94

TABLE No. 3

Supervision of Field Work—Rice—Independent Estimate of Mean Yield of Paddy Based on Harvest Stage Inspection—1975-76

District	Season	No. of experiments		Mean yield rate of paddy (Kg/Hectare)		Driage Ratio used for columns 5 & 6
		Planned for inspection at harvest stage	Inspected at harvest stage	Before Driage	After Driage	
(1)	(2)	(3)	(4)	(5)	(6)	(7)
Trivandrum	Autumn	31	34	2591	2205	0.851
	Winter	27	31	2809	2461	0.876
	Summer	35	26	2055	1743	0.848
Quilon	Autumn	45	39	2649	2297	0.867
	Winter	42	40	2992	2693	0.900
	Summer	35	24	2091	1838	0.879
Alleppey	Autumn	52	48	2580	2255	0.874
	Winter	42	38	2122	1940	0.914
	Summer	51	32	3411	3152	0.924
Kottayam	Autumn	38	32	2210	1883	0.852
	Winter	31	29	2738	2382	0.870
	Summer	32	23	3650	3347	0.917
Idikki	Autumn	17	12	2748	2418	0.880
	Winter	25	20	3092	2727	0.882
	Summer	3	3	3392	3053	0.900
Ernakulam	Autumn	52	36	2167	1874	0.865
	Winter	42	37	2334	2056	0.881
	Summer	51	46	2361	2047	0.867
Trichur	Autumn	38	43	2082	1774	0.852
	Winter	35	33	2133	1854	0.869
	Summer	39	29	2852	2453	0.860

TABLE No. 3 (*Contd*)

(1)	(2)	(3)	(4)	(5)	(6)	(7)
Palghat	Autumn	38	33	3410	3093	0.907
	Winter	35	22	3444	3182	0.924
	Summer	42	33	2836	2635	0.929
Malappuram	Autumn	31	20	2695	2382	0.884
	Winter	28	24	2735	2475	0.905
	Summer	35	24	2887	2714	0.940
Kozhikode	Autumn	24	20	1254	1141	0.910
	Winter	28	26	1993	1814	0.910
	Summer	35	26	2540	2344	0.923
Cannanore	Autumn	38	30	2038	1806	0.886
	Winter	42	44	2335	2130	0.912
	Summer	51	45	2237	2054	0.918
State	Autumn	401	347	2418	2113	0.874
	Winter	377	344	2562	2293	0.895
	Summer	409	311	2662	2398	0.901

TABLE No. 4

Yield Estimate—Rice—1975-76

District	Season	Area under crop (Hect.)		No. of experiments		Response %	Estimated yield in Kg/Hect. of paddy	Sampling error (percentage)	Total production of rice in tonnes
		Total	Coverage%	Planned	Analysed				
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
Trivandrum	Autumn	19319	100	72	71	99	2322	4.87	29472
	Winter	20426	100	72	70	97	2595	4.16	34832
	Summer	1654	100	72	70	97	1599	5.75	1738
Quilon	Autumn	21161	100	108	106	98	2142	4.11	29783
	Winter	29112	100	108	107	99	2585	3.21	49453
	Summer	1156	100	66	66	100	1818	10.62	1381
Alleppey	Autumn	30395	100	126	112	89	2304	5.47	46005
	Winter	23545	100	108	104	96	1848	4.55	28593
	Summer	42738	100	108	102	94	3068	6.23	86142
Kottayam	Autumn	8008	100	84	78	93	1967	7.78	10348
	Winter	18833	100	78	77	99	2244	6.64	27769
	Summer	17482	100	63	62	98	3429	6.07	39390
Idukki	Autumn	4126	100	36	33	92	2449	9.43	6640
	Winter	9252	100	63	62	98	2544	2.52	15464
	Summer	52	100	3	3	100	3053	..	104

TABLE No. 4 (*Contd.*)

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
Ernakulam	Autumn	38096	100	126	109	87	2011	4.97	50340
	Winter	40562	100	108	86	80	2079	2.55	55419
	Summer	10285	100	108	103	95	1983	3.98	13401
Trichur	Autumn	34566	100	90	88	98	1761	5.00	39987
	Winter	59493	100	90	74	82	1995	4.11	77996
	Summer	14319	100	78	74	95	2317	4.62	21799
Palghat	Autumn	100835	100	90	80	89	3095	5.20	205018
	Winter	82211	100	90	77	86	3068	4.13	165741
	Summer	2136	100	87	83	95	2465	12.58	3460
Malappuram	Autumn	50596	100	72	72	100	2115	8.37	70294
	Winter	36154	100	72	69	96	2080	4.13	49417
	Summer	6203	100	72	68	94	2614	9.33	10652
Kozhikode	Autumn	24934	100	54	50	93	1112	11.69	18218
	Winter	34962	100	72	68	94	1911	5.76	43895
	Summer	4069	100	72	69	96	2429	7.58	6495
Cannanore	Autumn	65196	100	90	90	100	1843	7.81	78963
	Winter	29156	100	108	107	99	2101	4.05	40250
	Summer	3937	100	108	106	98	2477	8.28	6408
State	Autumn	397232	100	948	889	94	2242	2.45	585068
	Winter	383706	100	969	901	93	2336	1.54	588829
	Summer	104031	100	837	806	96	2794	3.19	190970

TABLE No. 5

Pooled Estimates of Mean Yield and Production of Rice—Year 1975-76

District	Series	Autumn 1975		Winter 1976		Summer 1976		Total 1975-'76	
		Mean yield of rice in Kg./Hectare	Production of rice in tonnes	Mean yield of rice in Kg./Hectare	Production of rice in tonnes	Mean yield of rice in Kg./Hectare	Production of rice in tonnes	Mean yield of rice in Kgs./Hectare	Production of rice in tonnes
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
Alleppey	State series	1514	46005	1214	28593	2016	86142	1663	160740
	IADP	1184	35988	1079	25405	1801	76971	1431	138364
	Pooled	..	..	..	..	..	..	..	..
Palghat	State series	2033	205018	2016	165741	1620	3460	2020	374219
	IADP	2158	217602	2001	164504	..	..	2087	382106
	Pooled		..	2004	164739	..	..	2015	373217
State	State	1473	585068	1535	588829	1836	190970	1542	1364867
	Pooled	..	..	1532	587827	.		1541	1363865

Note:—1. Results of IADP and State series of experiments are not found poolable in all the three seasons in Alleppey District and in Autumn season in Palghat District.

2. Usually IADP series of experiments are not conducting in Palghat District during Summer season.

TABLE No. 6

Data on driage [Percentage recovery of final produce (Dry paddy) from harvested produce] and yield from irrigated and unirrigated plots—Rice 1975-'76

District	Season	Driage Experiment			Irrigated Plots		Un-irrigated Plots	
		Number Planned	Number Analysed	Percentage	No.	Mean yield of dry paddy (Kg/ hectare)	No.	Mean yield of dry paddy (Kg/ hectare)
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Trivandrum	Autumn	12	11	92	27	2320	44	2345
	Winter	12	12	100	29	2540	41	2600
	Summer	12	12	100	65	1648	5	1254
Quilon	Autumn	18	15	83	7	1872	99	2293
	Winter	18	18	100	26	2810	81	2515
	Summer	11	11	100	42	2057	24	1258
Alleppey	Autumn	20	19	95	1	1172	111	2177
	Winter	18	18	100	12	2686	92	1890
	Summer	18	18	100	51	3497	51	2765
Kottayam	Autumn	14	13	93	7	2796	71	1972
	Winter	13	13	100	32	2478	45	2210
	Summer	10	11	110	39	3083	23	3705
Idukki	Autumn	6	4	67	6	2924	27	2163
	Winter	10	10	100	16	2725	46	2638
	Summer	1	1	100	1	3600	2	2779

TABLE No. 6

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Ernakulam	Autumn	20	16	80	22	1940	87	2024
	Winter	18	18	100	72	2093	14	2176
	Summer	18	17	94	103	1929	..	..
Trichur	Autumn	15	13	87	3	1614	85	1532
	Winter	15	15	100	21	2127	53	1705
	Summer	13	13	100	71	2584	3	2189
Palghat	Autumn	14	13	93	7	3438	73	2961
	Winter	15	10	67	55	3120	22	2521
	Summer	15	12	80	72	2849	11	1664
Malappuram	Autumn	12	12	100	6	1705	66	2185
	Winter	12	12	100	15	1993	54	2138
	Summer	12	12	100	63	2672	5	2009
Kozhikode	Autumn	9	8	89	..	..	50	1138
	Winter	12	12	100	8	1458	60	1712
	Summer	12	12	100	39	2354	30	2039
Cannanore	Autumn	15	12	80	10	2274	80	1697
	Winter	18	18	100	40	2066	67	1998
	Summer	18	18	100	57	2210	49	1854
State	Autumn	155	136	88	96	2277	793	2055
	Winter	161	156	97	326	2432	575	2144
	Summer	140	137	98	603	2436	203	2242

TABLE NO. 7.1

Crop Estimation Survey

Statement showing the percentage area under different improved Agricultural Practices

Crop : Paddy

Season and year : Autumn 197.5

District	Percentage Area under							
	High yielding variety	Other Varieties	Chemical Fertilisers	Other Manures	Not Manured	Treatment of insecticides	Untreated by insecticides	Remarks
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Trivandrum	12.68	87.32	95.77	2.82	1.41	64.79	35.21	
Quilon	21.70	78.30	85.85	13.21	0.94	21.70	78.30	
Alleppey	40.18	59.82	88.39	8.93	2.68	40.18	59.82	
Kottayam	30.77	69.23	88.46	3.85	7.69	55.13	44.87	
Idukki	39.39	60.61	66.67	33.33	..	51.52	48.48	
Ernakulam	44.04	55.96	67.89	4.59	27.52	55.96	44.04	
Trichur	11.36	88.64	44.32	50.00	5.68	37.50	62.50	
Palghat	31.25	68 75	81.25	18.75	..	47.50	52.50	
Malappuram	19.44	80.56	56.94	43.06	..	44.44	55.56	
Kozhikode	12.00	88.00	32.00	66.00	2.00	4.00	96.00	
Cannanore	15.56	84 44	66.67	33.33	..	25.56	74.44	
State	25.98	74.02	72.44	22.27	5.29	40.83	59.17	

TABLE No. 7.2

Crop Estimation Survey

Statement showing the percentage of area under different improved Agricultural practices

Crop : Paddy — Season and year : Winter 1976

District	Percentage area under							
	High yielding variety	Other varieties	Chemical Manure	Other Manures	Not Manured	Treatment of insecticides	Untreated by insecticides	Remarks
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Trivandrum	10.00	9.00	92.86	7.14	..	58.57	41.43	
Quilon	6.54	93.46	82.24	17.76	..	27.10	72.90	
Alleppey	10.58	89.42	80.77	13.46	5.77	48.08	51.92	
Kottayam	51.95	48.05	94.80	2.60	2.60	93.51	6.49	
Idukki	1.61	98.39	66.13	25.81	8.06	83.87	16.13	
Ernakulam	8.14	91.86	77.91	13.95	8.14	65.12	34.88	
Trichur	24.32	75.68	56.76	39.19	4.05	52.70	47.30	
Palghat	11.69	88.31	80.52	19.48	..	66.23	33.77	
Malappuram	21.74	78.26	82.61	17.39	..	68.12	31.88	
Kozhikode	16.18	83.82	42.65	52.94	4.41	27.94	72.06	
Cannanore	16.82	83.18	55.14	43.93	0.93	67.29	32.71	
State	15.98	84.02	74.03	22.97	3.00	58.60	41.40	

TABLE No. 7.3.

Crop Estimation Survey

Statement showing the percentage area under different improved Agricultural practices

Crop : Paddy — Season and year : Summer 1976

District	Percentage area under							Remarks
	High yielding variety	Other Varieties	Chemical fertilisers	Other manure	Not manured	Treatment of insecticides	untreated by insecticides	
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Trivandrum	82.86	17.14	97. 4	1.43	1.43	90.00	10.00	
Quilon	12.12	87.88	81.82	7.58	10.60	62.12	37.88	
Alleppey	84.31	15.69	97.06	2.94	..	93.14	6.86	
Kottayam	56.45	43.55	100.00	..	..	100.00	..	
Idukki	..	100.00	33.33	66.67	..	100.00	..	
Ernakulam	30.10	69.90	94.17	5.83	..	81.55	18.45	
Trichur	70.27	29.73	94.59	5.41	..	97.30	2.70	
Palghat	55.42	44.58	81.93	18.07	..	71.08	28.92	
Malappuram	55.88	44.12	85.29	14.71	..	77.94	22.06	
Kozhikode	65.22	34.78	85.51	14.49	..	55.07	44.93	
Cannanore	38.68	61.32	60.38	34.90	4.72	70.75	29.25	
State	54.59	45.4.	86.85	11.54	1.61	80.02	19.98	

TABLE No. 3

Response—Crop—Tapioca 1975-1976

Sl. No.	District	No. of experiments		Percentage response
		Planned	Analysed	
(1)	2)	(3)	(4)	(5)
1	Trivandrum	44	36	82
2	Quilon	64	56	88
3	Alleppey	24	21	88
4	Kottayam	28	25	89
5	Idukki	24	19	79
6	Ernakulam	54	44	81
7	Trichur	50	24	48
8	Palghat	58	39	67
9	Malappuram	44	30	68
10	Kozhikode	40	19	48
11	Cannanore	80	64	80
	State	510	377	74

TABLE No. 9

Yield Estimates –Tapioca 1975-1976

District	Area under crop		No of experiments		Response Percentage	Estimated mean yield Tonnes/ hectare	Total production of raw tapioca (Tonnes)
	Total Area (Hectare)	Coverage %	Planned	Analysed			
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Trivandrum	77053	100	44	36	82	14.29	1101087
Quilon	99688	100	64	56	87	18 02	1796378
Alleppey	19124	100	24	21	87	16.80	321283
Kottavam	40120	100	28	25	89	17 98	721358
Idukki	3124	100	24	19	79	21.64	67603
Ernakulam	12293	100	54	44	81	18.94	232829
Trichur	8617	100	50	24	48	13.54	116674
Palghat	13640	100	58	39	67	14.10	192324
Malappuram	22229	100	44	30	68	11 92	264970
Kozhikode	11139	100	40	19	47	18.19	202618
Cannanore	9076	100	80	64	80	18.30	166091
State	316103	100	510	377	74	16.40	5183215

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