

Sl no.  
1896



GOVERNMENT OF KERALA

REPORT ON  
COST OF CULTIVATION  
OF  
IMPORTANT CROPS IN KERALA  
1988-89

DEPARTMENT OF ECONOMICS & STATISTICS  
THIRUVANANTHAPURAM

1990



**GOVERNMENT OF KERALA**

**REPORT ON  
COST OF CULTIVATION OF  
IMPORTANT CROPS IN KERALA  
1988-89**

**DEPARTMENT OF ECONOMICS & STATISTICS**

**THIRUVANANTHAPURAM**

**1990**



## **PREFACE**

This report is based on the ninth round of the Survey on Cost of Cultivation of Important Crops in Kerala, which was conducted during 1988-89. The crops studied during this round were Paddy (3 seasons) Coconut, Tapioca and Banana.

The tabulation of data was done at the district level and the consolidation was done at the headquarters by the staff of the Cost of Cultivation section of the Department of Economics and Statistics. The report was prepared by Smt. T. Bhavana, Research Officer under the supervision of Smt. C. Zainaba, Joint Director, Survey and Design.

**P.L. Sreedevi Amma**  
**Director of Economics & Statistics**

Thiruvananthapuram,

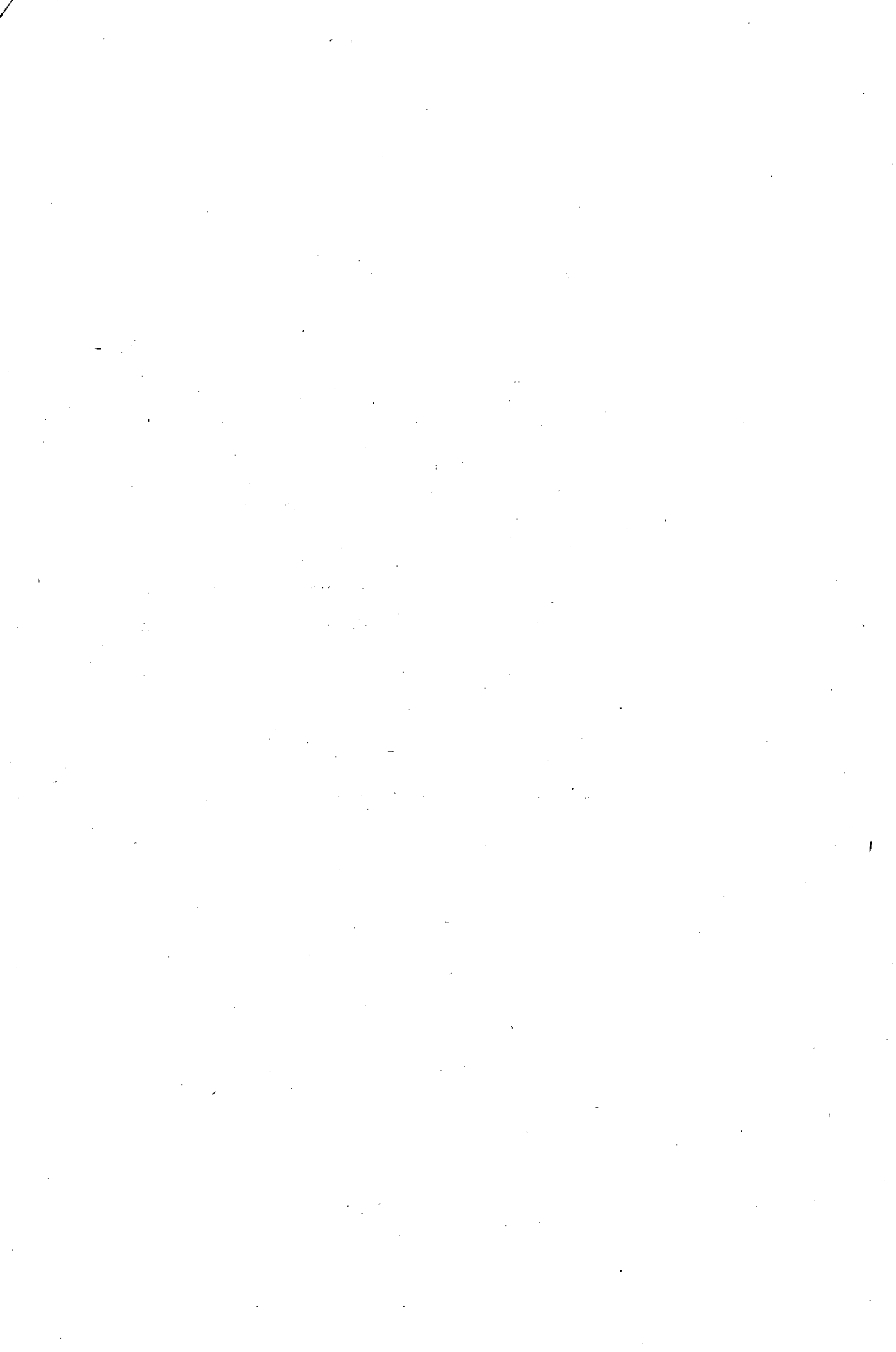
4--5--1990.



## C O N T E N T S

		<u>page</u>
Chapter 1	- General	1
Chapter 2	- Results of the survey	5
2.1	- Paddy	5
	(i) Autumn paddy	6
	(ii) Winter paddy	10
	(iii) Summer paddy	13
2.2	- Coconut	16
2.3	- Tapioca	20
2.4	- Banana	22
Chapter 3	- Summary of findings	25
Appendix 1 - 6	- Detailed tables	26

---





# REPORT ON THE COST OF CULTIVATION OF IMPORTANT CROPS IN KERALA - 1988-89

## Chapter 1 - General

### 1.1 Introduction

Government of Kerala accorded sanction for conducting annual surveys on cost of cultivation of important crops in the State from 1980-81 onwards, in order to fill up the data gap in the cost aspect in administering various agricultural development schemes. The present report relates to the ninth round of the survey conducted during 1988-89.

The following crops were covered in the study.

- (i) Paddy (3 seasons)
- (ii) Coconut
- (iii) Tapioca
- (iv) Banana

### 1.2 Objectives

The main objectives of the survey are

- (i) to estimate the cost of cultivation per hectare of different crops selected.
- (ii) to compare the costs under different concepts, over a period.

### 1.3 Staff

The following staff were engaged for the survey.

<u>Category</u>	<u>Number</u>
Field - U.D. Investigators	14
L.D. Investigators	28
Head Office : Research Assistant	1
U.D. Compiler	1

### 1.4 Period of the survey

The period of the survey was the Agricultural year 1988-89 (July to June)

### 1.5 Design of the survey

The present survey was conducted in the 38 taluks selected for the eighth round. From each selected taluk two investigator zones of the EARAS Survey were selected using simple random sampling method. The sample holding consisted of a key plot together with all the other plots (both wet and dry) possessed by the same cultivator within the taluk. The plots listed for each crop in the concerned Form I diary during 1987-88 was the frame for selection of key plots. The selection of key plots was done by simple random sampling method.

The number of holdings selected for each crop in a taluk was as follows:

1. Paddy - Autumn - 10 (5 holdings each from one investigator zone)  
           Winter - 10           "           "  
           Summer - 10           "           "
2. Coconut - 10 (5 holdings each from one investigator zone)
3. Tapioca - 5 (Minimum 2 holdings in one investigator zone)
4. Banana - 5                           "

In the case of paddy, separate selection was made for all the three seasons. As regards summer paddy, if sufficient number of holdings was not available in the selected investigator zones, another zone in the taluk was selected and the remaining number of plots were selected from that zone. If the holdings selected for autumn paddy contained area under the other three crops also, fresh selection was not done for these crops. In such cases, the holdings selected for paddy were taken for these crops also. If sufficient number of holdings were not obtained for coconut, tapioca and banana from the selected paddy holdings, the balance was selected from the plots listed in Form I Diary for those crops.

A holding was considered for the study only if it contained at least 25 cents under the crop in the case of paddy and tapioca, 10 cents in the case of banana, and 25 trees for coconut (at least 50% bearing tree).

The holding size group of a crop was determined on the basis of the area under the crop under study in the holding as shown below.

Size group	Holding size	
	Paddy	Other crops
1. Small	< 0.40 hectare	< 0.2 hectare
2. Medium	0.40 to < 2 hect.	0.20 to < 0.80 hect.
3. Large	≥ 2 hect.	≥ 0.80 hect.

Note: < - less than ;                      ≥ - greater than or equal to

### 1.6 Schedules

Three schedules were designed for the survey.

Schedule-I - This schedule was used for listing the plots for selection of holdings and recording the details of the selected holdings.

Schedule - II - This schedule was used for recording details of the cultivators' households and details like area of holdings, inventory of agricultural implements, live stock etc.

Schedule - III - This schedule was meant for recording cultivation cost, every fortnight.

### 1.7 Field work

Field work was done by 38 investigators posted at the rate of one investigator in each taluk. The investigators visited the selected holdings every fortnight and recorded fortnightly operations in schedule I:1. The field work was supervised by Taluk Statistical Officer at the taluk level and by Deputy Director/District Officer at the district level.

### 1.8 Analysis

## 1.8 Analysis

The compilation and tabulation were done at the district level by the investigators posted for the survey. Five compilers were posted in the headquarters for the consolidation of the data at the State level. Report was also prepared at the headquarters.

## 1.9 Method of estimation of cost

(a) Concept of cost: Different cost concepts, cost 'A', cost 'B1', cost 'B' and cost 'C' have been followed in the analysis as shown below.

### Cost 'A'

Cost 'A' consists of cash and kind expenses (paid out costs) actually incurred by the cultivators. This includes -

- |                          |  |
|--------------------------|--|
| i. Hired human labour    | vii. Plant protection  |
| ii. Animal labour        | viii. Land tax   |
| iii. Machine labour      | ix. Irrigation cess  |
| iv. Seed/seedlings       | x. Repair and maintenance charges of implements, machinery and buildings |
| v. Farmyard manure       | xi. Interest on working capital  |
| vi. Chemical fertilizers | xii. Other expenses.   |

### Cost 'B1'

Cost 'A' + Interest on fixed assets (excluding land)

### Cost 'B'

Cost 'B1' + Interest on land value

### Cost 'C'

Cost 'B' + Imputed value of family labour

### (b) Procedure for imputation of values of owned inputs

Some of the inputs from home stock are used in the production process. While computing the cost of cultivation it is necessary to impute the value of these inputs. The procedure used for the imputation of values of such home stock inputs is indicated below.

- |  |   |
|--|---|
| (i) Family labour                      | - Imputed on the basis of average wage rate per work hour of hired labour.  |
| (ii) owned and exchange human labour   | - The rate of wages per hour for hired human labour is taken for imputing the value of owned and exchange human labour.     |
| (iii) Owned and exchange animal labour | - The rate of charges per hour for hired animal labour is taken for imputing the value of owned and exchange animal labour. |
| (iv) Owned and exchange machine labour | - The hire charges per hour for machine labour has been taken.  |
| (v) Implements                         | - Repair and maintenance charges of implements  |
| (vi) Owned seed                        | - Farm produced (home grown) seed has been imputed at the prices prevalent in the zone concerned at the time of sowing.     |

- (vii) Farm produced manure - Imputed at the rates prevalent in the zone concerned.
- (viii) Interest on owned fixed capital - Interest on the present value of fixed assets such as land, farm, building, implements, machinery, irrigation structure, equipment and livestock (only draught animals at the rate of 10% per annum has been calculated).
- (ix) Interest on working capital - Interest has been charged at the rate of 10% per annum on the working capital, cash and kind expenses excluding items in respect of which payments are generally made after harvest (ie. rent, land tax etc.) incurred during the period of cultivation.
- (x) Payments in kind - The payments in kind have been evaluated at the market prices prevalent in the locality at the time of payment. Perquisites have been included in the payments in kind evaluated at market prices.

(c) Allocation of joint costs to different crops

Some of the inputs used for the cultivation are common for some other crops also. For the purpose of computing the cost share of individual crops, the cost of such inputs is apportioned in the following manner.

- (i) Repair and maintenance charges of implements In proportion to the area under the crops.
- (ii) Interest on owned fixed capital (excluding land) In proportion to the area under the crops.
- (iii) Interest on land value Interest on the value of land under the crops.

(d) Procedure for evaluation of farm assets

- (i) Own farm buildings (cattlesheds, storage shed etc.) Evaluated at prices prevailing in the locality.
- (ii) Implements and other machinery Evaluated at market prices
- (iii) Livestock (only draught animals) Evaluated at prevalent market prices

In calculating the cost of production of paddy crop in each season the interest on land value at the rate of 10% per annum for the period of 6 months is taken into account. The land value is estimated at the current market rate in the different areas.

## Chapter 2 - Results of the Survey

The crops selected for this round of study were paddy (autumn, winter and summer) coconut, tapioca and banana.

### 2.1 Paddy

Paddy is cultivated during the three seasons - autumn, winter and summer. The total area under paddy during 1988-89 was 5.77 lakh hectares and rice production is estimated at 10.13 lakh tonnes. The area under paddy during the three seasons are given below:

#### 1. Area under paddy during the year 1988-89 (in lakh hect.)

Season	Area	Percentage to total cropped area
Autumn	2.33	8.29
Winter	2.74	9.75
Summer	0.70	2.49
<b>Total</b>	<b>5.77</b>	<b>20.53</b>

Source : EARAS estimate for the year 1988-89

The gross area under paddy was 21% of the total cropped area as seen from the table.

#### 2. Percentage of area under paddy in each season to the total area under paddy during 1988-89

Season	Percentage
Autumn	40.38
Winter	47.49
Summer	12.13
<b>Total</b>	<b>100.00</b>

40% of the gross area under paddy comes under autumn, about 48% under winter and 12% under summer.

The production of rice during the three seasons is given below.

#### 3. Production of rice during 1988-89 (in lakh tonnes)

Season	Production of rice (lakh tonnes)	percentage
Autumn	3.88	38.31
Winter	4.73	46.69
Summer	1.52	15.00
<b>Total</b>	<b>10.13</b>	<b>100.00</b>

Source : EARAS estimate

The average yield rate of paddy per hectare in each season is given in the following table.

#### 4. Average yield of paddy during 1988-89

Season	Average yield (tonne/hect.)
Autumn	2.53
Winter	2.62
Summer	3.29

It can be seen from the above table that the yield rate/hectare is normally highest in summer season.

About 65% of the total irrigated cropped area is under paddy.

#### (i) Autumn (Virippu) Paddy

For the cost study of autumn paddy a total of 340 holdings were selected. Distribution of these sample holdings according to size class (viz. small, medium, large) of holdings along with the area of holding for each size class and the percentage of area under each size class can be seen in the following table.

#### 5. Area under autumn paddy during 1988-89

Holding size class	No. of selected holdings	Area under the crop in the sample (hect)	Percentage	Area per holding (hect.)
Small	213	44.78	24.82	0.21
Medium	115	95.57	52.97	0.83
Large	12	40.07	22.21	3.34
<b>Total</b>	<b>340</b>	<b>180.42</b>	<b>100.00</b>	<b>0.53</b>

The average area per sample holding under study is 0.53 hectare.

#### A. Cost of cultivation

As stated earlier the cost of cultivation is estimated under the three different concepts of cost (viz. cost A, cost B and cost C). The estimated cost of cultivation of different items per hectare of autumn paddy is given below. (please refer Appendix-1 also)

## 6. Cost of cultivation per hectare of paddy (Autumn) during the year 1988-89

Components of different cost concepts	Cost per hect. (in Rs.)	% distribution of cost 'A'
1	2	3
1. Hired human labour	3235	55.27
2. Animal labour	366	6.25
3. Machine labour	313	5.35
4. Seed/seedlings	427	7.30
5. Farm yard manure and chemical fertilizers	1000	17.08
6. Plant protection	72	1.23
7. Land tax and irrigation cess	22	0.38
8. Repair and maintenance charges	90	1.54
9. Other expenses	55	0.94
10. Interest on working capital	273	4.66
11. Total cost 'A' (1-10)	5853	100.00
12. Interest on fixed capital	292	
13. Cost 'B1' (11+12)	6145	
14. Interest on land value	5681	
15. Cost 'B' (13+14)	11826	
16. Imputed value of household labour	408	
17. Cost 'C' (15+16)	12234	

Note: Figures in column(3) give the percentage to total cost 'A'

Total cost 'A' of cultivation of autumn paddy per hectare works out to Rs.5853/-. From the table it is seen that 55% of the total cost 'A' is towards hired human labour. About 6% goes for animal labour and 5% towards machine labour. The percentage of hired human labour hours to total human labour hours engaged in autumn paddy cultivation is shown below.

## 7. Percentage of hired human labour hours to total human labour hours

Sex	Holding size class			
	Small	Medium	Large	All sizes
Male	25.62	32.53	19.12	28.55
Female	60.54	59.79	79.29	63.00
<b>Total</b>	<b>86.16</b>	<b>92.32</b>	<b>98.41</b>	<b>91.55</b>

About 92% of total human labour relates to hired human labour.

About 7% of the cost 'A' is accounted for by seed/seedlings and 17% is for farm yard manure and chemical fertilizers. Around 1% of cost 'A' is spent for plant protection measures. Expenditure on land tax and irrigation cess comes to only a negligible amount i.e. 0.38%. The percentage share for repair and maintenance of implements and machinery comes to only 1.54% of the total cost 'A'. The interest on working capital is about 5% and the expenditure towards other item is only less than 1%.

Cost 'B1'

Cost 'B1' is estimated by adding the interest on fixed capital (excluding land) to cost 'A'. It works out to Rs.6145/- for 1988-89 as against Rs.5830 in 1987-88.

The interest on land value is found to be Rs.5681/- during the period which is higher than the previous year's figure of Rs.5428/-. It is seen that the interest on land value is minimum in large class and maximum in the case of small size class.

Cost 'B' and cost 'C'

Cost 'B' is estimated by adding the interest on land value to cost 'B1' and cost 'C' is estimated by adding the imputed value of household human labour to cost 'B'. Cost 'B' is found to be Rs.11826 and cost 'C' is Rs.12234. The imputed value of household human labour is Rs.408/- per hectare. The estimates of cost under three major concepts relating to the year under study and to the previous year are given below.

**B. Cost of cultivation of (autumn) paddy in Rs./hect. for 1987-88 & 1988-89**

Concept of cost	Year	Holding size class			
		Small	Medium	Large	All sizes
Cost 'A'	1987-88	6393	5715	4510	5567
	1988-89	6462	5863	4757	5853
Cost 'B'	1987-88	13608	11027	6201	11258
	1988-89	13766	11403	7046	11826
Cost 'C'	1987-88	14172	11327	6357	11628
	1988-89	14341	11691	7553	12234

Compared to the previous year, the cost of cultivation has increased during 1988-89, the percentage of increase being 5.14%, 5.05% and 5.21% in the case of cost 'A', cost 'B' and cost 'C' respectively.

**B. Output**

The values of product and by product per hectare for the period under report are seen to be Rs.5254/- and Rs.1101/- respectively. The total value of product and by-product for each size class is given in the following table.

**9. Value of product and by-product per hectare (in Rs.) during 1988-89**

Product/by-product	Holding size class			
	Small	Medium	Large	All sizes
Paddy	5290	5031	5746	5254
Straw	1520	1127	572	1101
<b>Total</b>	<b>6810</b>	<b>6158</b>	<b>6318</b>	<b>6355</b>



During 1988-89, the value of by-product has decreased to Rs.1101/- hect. from Rs.1305 of the previous year in 1987-88. It has been reported that the value of by-product has decreased due to continuous rain and consequent decay of the hay.

It can be seen that the value of product has shown an increasing trend from 1980-81 to 1983-84 and from 1984-85 onwards a fluctuating trend is noted as shown in the following table.

#### 10. Value of product/hectare (in Rs.)

Year	Value of product
1980-81	2262
1981-82	3446
1982-83	3937
1983-84	5012
1984-85	4368
1985-86	4801
1986-87	4618
1987-88	5189
1988-89	5254

#### (c) Cost of production of paddy per quintal

Cost of production of paddy per quintal is estimated by dividing the cost of cultivation per hectare (after deducting the value of 'by-product per hectare from the cost of cultivation per hectare) by the quantity of paddy produced per hectare.

#### 11. Cost of production of paddy per quintal during autumn season (in Rs.)

Concept of cost	Holding size class			
	Small	Medium	Large	All sizes
Cost 'A'	259	231	179	229
Cost 'B'	642	502	277	516
Cost 'C'	672	516	299	536

The cost of production of paddy per quintal during the period under report is Rs.229/- when cost 'A' is considered. It is seen that the cost is higher in the case of small size class.

When compared to the previous year the cost of production of autumn paddy per quintal showed an increase of 31%, 26% and 26% in the case of cost 'A' cost 'B' and cost 'C' respectively.

The percentage increase for 1988-89 is shown below.

## 12. Cost of production per quintal of autumn paddy 1987-88 & 1988-89 (in Rs.)

Concept of cost	1987-88	1988-89	Percentage increase
Cost 'A'	175	229	30.86
Cost 'B'	410	516	25.85
Cost 'C'	425	536	26.12

### ii. Winter (Mundakan) paddy

379 holdings were selected for the study of winter paddy cultivation during the report period. The holdings selected have an area of 200.25 hect. The number and area of the selected holdings for winter crop paddy are furnished in the following table.

### 13. Area and number of holdings selected during 1988-89

Holding size class	No. of holdings	Area under the crop (ha)	Percentage to total area	Area per holding (hect.)
Small	208	45.51	22.73	0.22
Medium	160	111.29	55.58	0.70
Large	11	43.45	21.69	3.95
<b>All sizes</b>	<b>379</b>	<b>200.25</b>	<b>100.00</b>	<b>0.53</b>

The average area per holding is found to be 0.53 hectares. 23% of the area comes under the small size class, 55% under medium size class and 22% under large size class.

### A. Cost of cultivation

The cost of cultivation per hectare of winter paddy during 1988-89 is given below (please see appendix-2 also)

### 14. Cost of cultivation per hectare of winter paddy 1988-89

Component of different cost	Cost per hect. (Rs.)	% distribution of cost 'A'
1. Hired human labour	3822	55.92
2. Animal labour	440	6.44
3. Machine labour	330	4.83
4. Seed/seedlings	463	6.77
5. Farm yard manure & chemical fertilizers	1106	16.18
6. Plant protection	160	2.34
7. Land tax and irrigation cess	49	0.72
8. Repair & maintenance charge of implements, machinery and buildings	78	1.14
9. Interest on working capital	319	4.67
10. Other expenses	68	0.99
11. Total cost 'A' (1-10)	6835	100.00
12. Interest on fixed capital (excluding land)	280	
13. Cost 'B1' (11+12)	7115	
14. Interest on land value	6288	
15. Cost 'B' (13+14)	13403	
16. Imputed value of household labour	344	
17. Cost 'C' (15+16)	13747	

Note: Figures in last column give the percentage to total cost 'A'

The expenditure incurred towards hired human labour for winter paddy is 3822/- per hectare. 56% of the total cost 'A' comes under this item. The percentage of hired human labour hours engaged in the paddy (winter) cultivation to the total labour hours is given in the following table.

**15. Percentage distribution of hired human labour hours to total labour hours**

Sex	Holding size class			
	Small	Medium	Large	All
Male	22.09	24.43	21.89	23.26
Female	63.90	67.16	75.92	67.88
<b>Total</b>	<b>85.99</b>	<b>91.59</b>	<b>97.81</b>	<b>91.14</b>

91% of the total labour hours is accounted for hired human labour. The percentage of hired female labour hours is higher as in the case of autumn paddy cultivation.

The cost towards animal labour per hectare is Rs.440/- and machine labour is Rs.330/- per hectare. 62% of the total cost 'A' accounts for hired human and animal labour cost taken together and 5% for machine labour. About 7% of the total cost 'A' is spent for seed/seedlings and 16% is spent towards farm yard manure and chemical fertilizers. 2% is spent towards plant protection and nearly 1% is for land tax and irrigation cess. Percentage share towards repair and maintenance charges of implements, machinery and building is 1% and interest on working capital is estimated to be Rs.319/- which is about 5% of the total cost 'A'. Nearly 1% of the total cost 'A' comes under other expenses.

The interest on fixed capital <sup>excluding</sup> including land is Rs.280/- and cost 'B1' is found to be Rs.7115/- per hectare. Interest on land value works out to Rs.6288/- and cost 'B' comes to Rs.13403/- per hectare. The imputed value of family labour is Rs.344/-. It is maximum in the case of small cultivators and minimum in the case of large cultivators.

The estimated cost for the cultivation of winter paddy per hectare under the three major concepts of cost are given below.

**16. Cost of cultivation under three major concepts of cost (Rs./hect.)**

Concept of cost	Holding size class			
	Small	Medium	Large	All sizes
Cost 'A'	7556	6568	6623	6835
Cost 'B'	16231	12562	12409	13403
Cost 'C'	16706	12952	12497	13747

When compared with the corresponding costs for the previous round, the cost 'A' showed an increasing trend during the current year while cost 'B' and 'C' are found to be more or less the same. The percentage increase of cost 'A' during the year is 17.

### 17. Cost of cultivation of winter paddy (Rs./hect.) for 1987-88 and 1988-89

Concept of cost	Year	Holding size class			
		Small	Medium	Large	All sizes
Cost 'A'	1987-88	6827	5586	5499	5850
	1988-89	7556	6568	6623	6835
Cost 'B'	1987-88	14507	11942	10165	12144
	1988-89	16231	12562	12409	13403
Cost 'C'	1987-88	15091	12207	10296	12454
	1988-89	16706	12952	12497	13747

### B. Output

#### 18. Value of output

Product and by-product	Holding size class			
	Small	Medium	Large	All size classes
Paddy	7235	7034	10399	7810
Straw	2888	2041	1247	2061
<b>Total</b>	<b>10123</b>	<b>9075</b>	<b>11646</b>	<b>9871</b>

### C. Cost of production of paddy per quintal

Cost of producing one quintal of paddy is worked out by dividing the cost of cultivation per hectare (after deducting the value of by-product per hectare from the cost of cultivation per hectare) by the yield per hectare.

#### 19. Cost of production of winter paddy per quintal (Rs.)

Concept of cost	Holding size class			
	Small	Medium	Large	All sizes
Cost 'A'	187	174	145	171
Cost 'B'	534	405	302	405
Cost 'C'	553	420	304	417

The cost of production of winter paddy is higher in the case of small size holdings and lower in the case of large size holdings.

The cost of production of winter paddy per quintal for 1987-88 and 1988-89 are presented below for the purpose of comparison.

**20. Cost of production of winter paddy per quintal (in Rs.)  
for 1987-88 and 1988-89**

Concept of cost	Holding size class							
	Small		Medium		Large		All size classes	
	1987-88	88-89	87-88	88-89	87-88	88-89	87-88	88-89
Cost 'A'	191	187	172	174	162	145	175	171
Cost 'B'	497	534	448	405	341	302	438	405
Cost 'C'	521	553	460	420	347	304	451	417

When compared to the previous year cost of production of winter paddy per quintal showed a decreasing trend during the current year. It is found that the cost 'A' is lower in the case of small and large size holdings for 1988-89 than 1987-88 while cost 'B' and cost 'C' showed an increasing trend in the case of small holdings and a decreasing trend in the case of medium and large size holdings.

(iii) Summer (Punja) Paddy

For summer paddy 350 holdings were selected during 1988-89 for studying the cost of cultivation. These holdings cover total area of 178.25 hectare. The average area per holding is given in the following table.

**21. Area under summer paddy**

Holding size class	No. of selected holdings	Area under paddy in hectare	Percentage to total area under paddy	Area per holding (hectares)
Small	234	48.67	27.30	0.21
Medium	108	79.89	44.82	0.74
Large	8	49.69	27.88	6.21
<b>Total</b>	<b>350</b>	<b>178.25</b>	<b>100.00</b>	<b>0.51</b>

The average area per sample holding is found to be 0.51 hectare.

From the 350 holdings studied, the total cost 'A' per hectare, that is cash and kind expense is found to be Rs.8047/-. The cost of cultivation per hectare is given in the following table. (Please see appendix 3 also)

## 22. Cost of cultivation per hectare of summer paddy for the year 1988-89

Components of different cost concept	Cost per hect.(Rs.)	% distribution of cost 'A'
1	2	3
1. Hired human labour	4493	55.83
2. Animal labour	378	4.69
3. Machine labour	368	4.57
4. Seed/seedlings	460	5.72
5. Farmyard manure & chemical fertilizers	1224	15.21
6. Plant protection	341	4.24
7. Land tax and irrigation cess	97	1.21
8. Repair and maintenance charges	101	1.26
9. Other expenses	211	2.62
10. Interest on working capital	374	4.65
11. Total cost 'A' (1-10)	8047	100.00
12. Interest on fixed capital	292	
13. Cost 'B1' (11+12)	8339	
14. Interest on land value	5047	
15. Cost 'B' (13+14)	13386	
16. Imputed value of household labour	418	
17. Cost 'C' (15+16)	13804	

Note: Figures in column (3) give the percentage to total cost 'A'

The human, animal and machine labour cost per hectare is Rs.5239/- which constitutes 65% of the total cost 'A'. Out of this, hired human labour cost constituted 56%, animal labour cost nearly 5% and machine labour 4%. The percentage of hired human labour hours engaged in the cultivation of summer paddy during 1988-89 is given below.

## 23. Percentage of hired human labour hours engaged in summer paddy cultivation

Holding size class	Male	Female	Total
Small	26.54	55.98	82.52
Medium	26.59	65.68	92.27
Large	26.56	73.38	99.94
All sizes	26.57	65.12	91.69

About 92% of the total human labour hours is hired human labour. 6% of the total cost 'A' is for seed/seedlings. 15% of the total cost 'A' constitutes the cost of farm yard manure and chemical fertilizers. 4% (Rs.341) was spent towards plant protection. The expenditure per hectare of land tax and irrigation cess is found to be Rs.19/- and Rs.78/- respectively. The interest on working capital is estimated to be Rs.374/- (5%) per hectare.

Cost 'B1' and cost 'B'

Cost 'B1' is obtained by adding the interest on fixed capital (excluding land) to cost 'A' and is seen to be Rs.292/-. The interest on land value during this period also is maximum in the case of small holding size class and minimum in the case of large holding size class. Cost 'B' is seen to be Rs.13386/- per hectare during 1988-89. The imputed value of household labour is maximum Rs.418) in the case of small class and minimum (Rs.3) in the case of large size class ie. small size class engaged themselves in the cultivation practices than the cultivators belonging to large size class. The animal labour has decreased as size class increases. Machine labour is lower in the case of small size class and large size holdings than animal labour. While machine labour is higher than animal labour in the case of medium size holdings. This goes to show that medium size class are interested in using machines for cultivation.

Cost 'B1' is found to be higher in the case of large size holdings. The interest on land value per hectare is found to be 6849/- and Rs.3686/- respectively in the case of small holding size class and large holding size classes. Cost 'B' is higher in the case of cultivators belonging to small holding size class and it is lower in the case of large size classes. When the cost of cultivation is compared with the previous year, the cost 'A' has increased by 23.78% and cost 'B' 1.65% and cost 'C' by 1%.

**24 Cost of cultivation of summer paddy Rs./hect. for 1987-88 and 1988-89**

Concept of cost	Year	Holding size class			
		Small	Medium	Large	All sizes
Cost 'A'	1987-88	6918	6222	6234	6501
	1988-89	7464	8124	8497	8047
Cost 'B'	1987-88	14547	12454	11907	13169
	1988-89	14645	13229	12295	13386
Cost 'C'	1987-88	15415	12793	12014	13667
	1988-89	15520	13628	12298	13804

**B. Output**

The value of output is seen to be Rs.11549/- per hectare for the summer paddy. The details for the different holding size classes are given as follows.

### 25. Value of product and by-product per hectare for 1988-89

Product/ by product	Holding size class			
	Small	Medium	Large	All sizes
Paddy	8163	9917	11639	9918
Straw	2114	1711	1031	1631
<b>Total</b>	<b>10277</b>	<b>11628</b>	<b>12670</b>	<b>11549</b>

#### C. Cost of production of paddy per quintal

Cost of producing one quintal of paddy is got by dividing the cost of cultivation per hectare (after deducting the value of by-product per hectare from the cost of cultivation per hectare) by the yield per hectare.

### 26. Cost of production of summer paddy per quintal

Concept of cost	Holding size class			
	Small	Medium	Large	All sizes
Cost 'A'	185	185	179	183
Cost 'B'	432	332	270	335
Cost 'C'	462	343	270	347

As in the case of Autumn paddy and Winter paddy, the cost of production of paddy/ctl. is higher in small size class holdings in the case of summer paddy also. A comparison between the cost of production of paddy per quintal during 1987-88 and 1988-89 is given in the following table.

### 27. Cost of production of paddy/ctl. during 1987-88 and 1988-89

Concept of cost	1987-88	1988-89
Cost 'A'	175	183
Cost 'B'	413	335
Cost 'C'	431	347

## 2.2 Coconut

During the agricultural year 1988-89 about 8.66 lakh hectare is under coconut cultivation ie. about 31% of the total cropped area in the State is under coconut. The area and the average yield per hectare is given in the following table.



### 28. Area and average yield of coconut 1988-89

Area under Coconut (ha)	Percentage to total cropped area	Average yield per hectare (No.of nuts)
866467	30.81	4435

(source: TRS provisional estimates 1988-89)

#### Selected holdings

380 holdings were selected during 1988-89 for the study on cost of cultivation of coconut. The area under coconut (size class-wise) is given below.

### 29. Number of holdings and area under coconut

Holding size class	No. of holdings	Area under coconut in the sample(ha)	Percentage	Area per holding(ha)
Small	106	17.26	9.78	0.16
Medium	220	89.85	50.89	0.41
Large	54	69.43	39.33	1.23
All sizes	380	176.53	100.00	0.46

The average area per sample holding is 0.46 hectare.

#### Number of bearing trees in the selected holdings

In the selected holdings the average number of bearing trees per hectare is found to be 138 and non-bearing trees 70

### 30. Number of bearing and non-bearing trees per hectare

Type of trees	No.of trees per hect.	Percentage
Bearing	138	66.35
Non-bearing	70	33.65
<b>Total</b>	<b>208</b>	<b>100.00</b>

#### A. Cost of cultivation

As in the case of paddy cost of cultivation of coconut is also estimated under the three different concepts of cost.

##### (i) Cost 'A'

The cash and kind expenses incurred by the cultivator per hectare is found to be Rs.3973/- during 1988-89 as against Rs.4169/- in the previous round. The estimated cost of cultivation of different items per hectare of coconut is given in the following table. (please refer appendix-4 also.

### 31. Cost of cultivation per hectare of Coconut during the year 1988-89

Components of different cost concept	Cost per hect.(in Rs.)	% distribution of cost 'A'
1	2	3
1. Hired human labour	1910	48.07
2. Animal labour	12	0.30
3. Machine labour	81	2.04
4. Seed/seedlings	8	0.20
5. Farmyard manure & chemical fertilizers	1291	32.50
6. Plant protection	9	0.23
7. Land tax and irrigation cess	15	0.38
8. Repair and maintenance charges	95	2.39
9. Other expenses	201	5.06
10. Interest on working capital	351	8.83
11. Total cost 'A' (1-10)	3973	100.00
12. Interest on fixed capital	601	
13. Cost 'B1' (11+12)	4574	
14. Interest on land value	36153	
15. Cost 'B' (13+14)	40727	
16. Imputed value of household labour	337	
17. Cost 'C' (15+16)	41064	

Note: Figures in column (3) give the percentage to total cost 'A'

Rs.2003/- per hectare is spent for human, animal and machine labour. The percentage of hired human labour hours to total human labour hours is given below.

### 32. Percentage distribution of hired human labours to the total human labour hours

Sex	Holding size class			
	Small	Medium	Large	All sizes
Male	58.05	69.64	81.13	71.74
Female	6.29	9.14	8.73	8.67
Total	64.34	78.78	89.86	80.41

80% of the total human labour hours has been constituted by hired human labour. Rs.8/- per hectare is spent towards seed/seedlings for new plantation. The cost for farm yard manure and chemical fertilizers per hect. is Rs.1291/-, showing that about 33% of the total cost 'A' is spent on these items. An amount of Rs.9/- is spent for plant protection per hectare. The expenditure towards land tax and irrigation cess is found to be Rs.15/- per hectare. The charges towards repair, maintenance of implements, machinery, buildings etc. is Rs.95/- per hectare. Interest on working capital is estimated

to be Rs.351/- per hectare. The other expenses were found to be Rs.201/- per hectare. The interest on fixed capital is estimated to be Rs.601/- per hectare (excluding land improvement).

(ii) Cost 'B1' and cost 'B'

Cost 'B1' is estimated by adding the interest on fixed capital (excluding land) to cost 'A'. It is found to be Rs.4574/- per hectare.

Cost 'B' is estimated to be Rs.40727/-. Imputed value of household labour is Rs.337/- per hectare. When compared with the previous round the interest on land value has increased nominally (0.11%) during the period under report.

(iii) Cost 'C'

During this round also, the family labour is seen to be higher in small holding size class and lower in large holding size class. Cost 'C' is estimated as Rs.41064/- per hectare.

**33. Cost of cultivation of Coconut per hectare during 1987-88 and 1988-89**

Concept of cost	Cost per hect. (in Rs.)		Percentage <del>of</del> decrease in cost of cultivation
	1987-88	1988-89	
Cost 'A'	4169	3973	4.70
Cost 'B'	40871	40727	0.35
Cost 'C'	41173	41064	0.26

**B. Value of product**

The total value of output per hectare is seen to be Rs.12736/- during 1988-89.

**34. Value of output per hectare**

Output	Value (in Rs.)
Product	11970
By-product	766
<b>Total</b>	<b>12736</b>

### 2.3 Tapioca

Tapioca is cultivated throughout the State since it is one of the main food items of the people of Kerala. But the area under tapioca is seen decreasing. During 1988-89, the area under the crop was 1.59 lakh hectares as against 1.79 lakh hectares during 1987-88.

#### 35. Area and average yield of Tapioca during 1988-89

Area under tapioca (lakh hect.)	Average yield per hect. (tonnes)	% of area under tapioca to total cropped area
1.59	17.62	5.66

About 6% of the total cropped area is under tapioca during 1988-89.

A total of 190 holdings were selected for studying the cost of cultivation of tapioca in Kerala. The number of holdings and the area are given below.

#### 36. Area and number of holdings selected during 1988-89

Size class	Number of holdings selected	Area under tapioca in the sample (hectare)	Percentage to total area	Area per holdings (hectare)
Small	120	13.81	37.41	0.12
Medium	55	16.73	45.31	0.30
Large	5	6.38	17.28	1.28
<b>All sizes</b>	<b>180</b>	<b>36.92</b>	<b>100.00</b>	<b>0.20</b>

The average area per sample holding is 0.20 hectare. The total area of the holdings selected for studying the cost of cultivation of tapioca was 36.92 hectare.

#### A. Cost of cultivation

The cost 'A' is estimated to be Rs.5709/- per hectare. The human, animal and machine labour cost is seen to be Rs.3211/- which is 56.23% of the total cost 'A'.

### 37. Cost of cultivation per hectare of Tapioca for the year 1988-89

Components of different cost concept	Cost per	% distribution
	hect.(in Rs.)	of cost 'A'
1	2	3
1. Hired human labour	3117	54.60
2. Animal labour	15	0.26
3. Machine labour	79	1.37
4. Seed/seedlings	218	3.82
5. Farmyard manure & chemical fertilizers	1502	26.31
6. Plant protection	4	0.07
7. Land tax and irrigation cess	70	1.23
8. Repair and maintenance charges	98	1.72
9. Other expenses	102	1.79
10. Interest on working capital	504	8.83
11. Total cost 'A' (1-10)	5709	100.00
12. Interest on fixed capital	613	
13. Cost 'B1' (11+12)	6322	
14. Interest on land value	30447	
15. Cost 'B' (13+14)	36769	
16. Imputed value of household labour	867	
17. Cost 'C' (15+16)	37636	

Note: Figures in column (3) give the percentage to total cost 'A'

The percentage of hired human labour hours engaged in tapioca cultivation is given below.

### 38. Percentage distribution of hired human labour hours

Sex	Holding size class			All sizes
	Small	Medium	Large	
Male	58.64	61.94	65.06	61.25
Female	10.97	13.88	29.86	15.76
<b>Total</b>	<b>69.61</b>	<b>75.82</b>	<b>94.92</b>	<b>77.01</b>

Around 77% of the total human labour hours accounts for hired human labour. About 4% of the total cost 'A' is spent towards seed/seedlings and Rs.1502/- is for farm yard manure and chemical fertilizers Rs.70/- is spent for land tax and irrigation cess. The repair and maintenance charges on implements and machinery per hectare is 98/- The interest on working capital is Rs.504 and other expense is Rs.102 respectively.

The interest on fixed capital (excluding land value) is Rs.613/- per hectare. Cost 'B1' is estimated to be Rs.6322/- The interest on land value is estimated to be Rs.30447/- per hectare and cost 'B' is estimated to be Rs.36769/- per hectare. The imputed value of household labour is Rs.867

per hectare. Cost 'C' is estimated to be Rs.37636/- per hectare. The estimated cost of tapioca cultivation under different cost concepts are shown below.

### 39. Estimated cost of Tapioca cultivation

Concept of cost	Cost per hectare (Rs.)
Cost 'A'	5709
Cost 'B'	36769
Cost 'C'	37636

A comparison between the cost of production of tapioca during 1987-88 and 1988-89 is given in the following table.

### 40. Cost of Tapioca cultivation per hectare during 1987-88 and 1988-89

Concept of cost	Cost per hectare (Rs.)		% increase in cost of cultivation
	1987-88	1988-89	
Cost 'A'	5568	5709	2.53
Cost 'B'	35627	36769	3.21
Cost 'C'	36505	37636	3.10

During the two years the cost A, B and C of tapioca cultivation has increased nominally.

### B. Output

The value of output per hectare is found to be Rs.9512/-.

### 2.4 Banana

Banana is cultivated throughout the State of Kerala. During 1988-89 the area under the crop was 18848 hect.

### 41. Area and average yield of Banana

Area under Banana (ha)	Percentage of area under the crop to total cropped area	Average yield per hectare of Banana(kg)
18848	0.65	13175

Source: Agricultural Statistics - 1987-88)

177 holdings were selected for the study of cost of cultivation of Banana during 1988-89. The number of holdings selected and the area under the crop are given below.

## 42. Number of holdings selected and area under the crop

Size class	Number of holdings	Area under the crop	Percentage to total area	Average area per holding(hect.)
Small	151	11.35	54.38	0.08
Medium	25	8.43	40.39	0.34
Large	1	1.09	5.23	1.09
<b>All sizes</b>	<b>177</b>	<b>20.87</b>	<b>100.00</b>	<b>0.12</b>

The average area per holding is found to be 0.12 hect. 54% of the total area of the crop is under small holdings size, 41% of the total area under the crop belongs to medium household size class. Among the 177 holdings selected only one holding having an area of 1.09 hect. belongs to large holding size.

A. Cost of cultivation

The cost 'A' is estimated to be Rs.23602/- per hectare taking into consideration of the cash and kind expenses. The hired human labour cost is found to be Rs.6702/- per hect. which constitutes 28% of the total cost 'A'.

The percentage of hired human labour hours engaged in Banana cultivation is given below.

## 43. Percentage of hired human labour hours to total human labour hours

Sex	Holding size class			All sizes
	Small	Medium	Large	
Male	53.45	61.85	86.55	56.85
Female	6.95	4.84	--	6.11
<b>Total</b>	<b>60.40</b>	<b>66.69</b>	<b>86.55</b>	<b>62.96</b>

## 44. Cost of cultivation per hectare of Banana during 1988-89

Component of different cost concept	Cost per hect. (in Rs.)	% distribution of cost 'A'
1	2	3
1. Hired human labour	6702	28.40
2. Animal labour	5	0.02
3. Machine labour	505	2.14
4. Seed/seedlings	2506	10.62
5. Farm yard manure & chemical fertilizers	7808	33.08
6. Plant protection	266	1.13
7. Land tax and irrigation cess	285	1.20
8. Repair and maintenance charges	75	0.32
9. Other expenses	3337	14.14
10. Interest on working capital	2113	8.95
11. Total cost 'A' (1-10)	23602	100.00
12. Interest on fixed capital	618	
13. Cost 'B1' (11+12)	24220	
14. Interest on land value	35747	
15. Cost 'B' (13+14)	59967	
16. Imputed value of household labour	3997	
17. Cost 'C' (15+16)	63964	

Note: Figures in column 3 give the percentage to total cost 'A'

The percentage of hired human labour hours engaged in Banana cultivation is about 63% of the total human labour hours. 2% of the total cost 'A' is spent towards machine labour and 10% is for seed/seedlings. About 33% of the total cost is spent towards farm yard manure and chemical fertilizers. Plant protection constitutes to 1%. Interest on working capital is about 9% of the total cost 'A'. The interest on fixed capital excluding land is estimated to be Rs.618/- per hectare.

#### B. Cost 'B1', Cost 'B' and Cost 'C'

Cost 'B1' is estimated to be Rs.24220/- per hectare and cost 'B' is estimated to be Rs.59967/- per hectare. The imputed value of household labour is 3997/- per hectare. Cost 'C' is found to be Rs.63964/- per hect.

When compared to the previous year the cost of cultivation per hectare of banana has increased during 1988-89, the percentage increase being 2%, 35% and 32% in the case of cost 'A', cost 'B' and cost 'C' respectively.

#### 45. Cost of cultivation per hectare of Banana during 1987-88 and 1988-89

Concept of cost	1987-88	1988-89	% of increase -
Cost 'A'	22970	23602	2.75
Cost 'B'	44346	59967	35.23
Cost 'C'	48317	63964	32.38

#### C. Value of product

The total value of output per hectare is seen to be Rs 38785/- during 1988-89.



### Chapter 3 - Summary of Findings

The cost of cultivation of important crops viz., Paddy (Autumn, Winter and Summer), Coconut, Tapioca and Banana are worked out by analysing the data collected through the survey 1988-89.

#### 1. Autumn paddy

During this year the cost of production per quintal of Autumn paddy has shown an increasing trend when compared to the previous year. Even though the value of product has increased marginally, the value of by-product showed a decreasing trend. Compared to the previous year the cost of cultivation has increased during this year.

#### 2. Winter paddy

Compared to the previous year cost 'A' showed an increasing trend during the current year while cost 'B' and cost 'C' found to be more or less the same.

#### 3. Summer paddy

The cost analysis of summer paddy for the different holding size classes showed that during this round medium size classes are interested in using machines for cultivation.

#### 4. Coconut

During this round the cost 'A', 'B' and 'C' per hectare of coconut cultivation showed a negative trend.

#### 5. Tapioca

Compared to the previous year the cost 'A', 'B' and 'C' relating to the cultivation of Tapioca is found to be increased nominally, 2.53%, 3.21% and 3.10% each respectively.

#### 6. Banana

During this round 177 holdings were selected for the study and the size class extended to small, medium and large. When compared to the previous year cost 'A', 'B' and 'C' has increased during this year. The value of product per hectare decreased from Rs.39036/- to Rs.38785/- during this year.

**Appendix 1 - Cost of cultivation per hectare (in Rs.) of Paddy (Autumn)  
during the year 1988-89**

Components of different cost concept	Holding size class			
	Small	Medium	Large	All sizes
1	2	3	4	5
1. Hired human labour	3457	3382	2400	3235
2. Animal labour	597	378	77	366
3. Machine labour	213	280	505	313
4. Seed/seedlings	449	451	344	427
5. Farm yard manure and chemical fertilizers	1206	890	940	1000
6. Plant protection	91	40	127	72
7. Land tax and irrigation cess	12	19	41	22
8. Repair & maintenance charges	105	92	24	90
9. Other expenses	30	57	76	55
10. Interest on working capital	302	274	223	273
11. Total cost 'A' (1-10)	6462	5863	4757	5853
12. Interest on fixed capital	270	298	340	292
13. Cost 'B1' (11+12)	6732	6161	5097	6145
14. Interest on land value	7034	5242	1949	5681
15. Cost 'B' (13+14)	13766	11403	7046	11826
16. Imputed value of household labour	575	288	507	408
17. Cost 'C' (15+16)	14341	11691	7553	12234

**Appendix 2 - Cost of cultivation per hectare (in Rs.) of Paddy (Winter)  
during the year 1988-89**

Components of different cost concept	Holding size class			
	Small	Medium	Large	All sizes
1	2	3	4	5
1. Hired human labour	4234	3667	3789	3822
2. Animal labour	604	439	272	440
3. Machine labour	316	334	333	330
4. Seed/seedlings	496	475	401	463
5. Farm yard manure and chemical fertilizers	1247	1082	1024	1106
6. Plant protection	123	109	329	160
7. Land tax and irrigation cess	40	39	84	49
8. Repair & maintenance charges	80	83	40	78
9. Other expenses	61	81	42	68
10. Interest on working capital	385	259	309	319
11. Total cost 'A' (1-10)	7556	6568	6623	6835
12. Interest on fixed capital	292	287	208	280
13. Cost 'B1' (11+12)	7848	6855	6831	7115
14. Interest on land value	8383	5707	5578	6288
15. Cost 'B' (13+14)	16231	12562	12409	13403
16. Imputed value of household labour	475	390	88	344
17. Cost 'C' (15+16)	16706	12952	12497	13747

**Appendix 3 - Cost of cultivation per hectare (in Rs.) of Paddy (Summer)  
during the year 1988-89**

Components of different cost concept	Holding size class			
	Small	Medium	Large	All sizes
1	2	3	4	5
1. Hired human labour	3829	4305	5446	4493
2. Animal labour	473	372	296	378
3. Machine labour	380	471	192	368
4. Seed/seedlings	486	466	425	460
5. Farm yard manure and chemical fertilizers	1394	1317	962	1224
6. Plant protection	236	317	481	341
7. Land tax and irrigation cess	53	175	14	97
8. Repair & maintenance charges	119	116	4	101
9. Other expenses	147	212	272	211
10. Interest on working capital	347	373	404	374
11. Total cost 'A' (1-10)	7464	8124	8497	8047
12. Interest on fixed capital	332	309	112	292
13. Cost 'B1' (11+12)	7796	8433	8609	8339
14. Interest on land value	6849	4796	3686	5047
15. Cost 'B' (13+14)	14645	13229	12295	13386
16. Imputed value of household labour	875	399	3	418
17. Cost 'C' (15+16)	15520	13628	12298	13804

**Appendix 4 - Cost of cultivation per hectare of Coconut  
during the year 1988-89**

Components of different cost concept	Holding size class			
	Small	Medium	Large	All sizes
1	2	3	4	5
1. Hired human labour	1999	2079	1668	1910
2. Animal labour	-	13	14	12
3. Machine labour	115	96	53	81
4. Seed/seedlings	22	11	1	8
5. Farm yard manure and chemical fertilizers	1485	1498	976	1291
6. Plant protection	2	15	4	9
7. Land tax and irrigation cess	27	15	12	15
8. Repair & maintenance charges	87	98	94	95
9. Interest on working capital	390	388	294	351
10. Other expenses	272	170	223	201
11. Total cost 'A' (1-10)	4399	4383	3339	3973
12. Interest on fixed capital	556	595	639	601
13. Cost 'B1' (11+12)	4955	4978	3978	4574
14. Interest on land value	54594	35539	32357	36153
15. Cost 'B' (13+14)	59549	40517	36335	40727
16. Imputed value of household labour	815	399	137	337
17. Cost 'C' (15+16)	60364	40916	36472	41064

**Appendix 5 - Cost of cultivation per hectare of Tapioca  
during the year 1988-89**

Components of different cost concept	Holding size class			
	Small	Medium	Large	All sizes
1	2	3	4	5
1. Hired human labour	3096	2964	3561	3117
2. Animal labour	37	4	-	15
3. Machine labour	40	77	169	79
4. Seed/seedlings	230	204	229	218
5. Farm yard manure and chemical fertilizers	1884	1446	827	1502
6. Plant protection	7	1	5	4
7. Land tax and irrigation cess	133	44	-	70
8. Repair & maintenance charges	139	58	23	98
9. Interest on working capital	542	481	480	504
10. Other expenses	128	115	13	102
11. Total cost 'A' (1-10)	6236	5394	5307	5709
12. Interest on fixed capital	787	430	364	613
13. Cost 'B1' (11+12)	7023	5824	5671	6322
14. Interest on land value	36851	30809	15639	30447
15. Cost 'B' (13+14)	43874	36633	21310	36769
16. Imputed value of household labour	1226	829	188	867
17. Cost 'C' (15+16)	45100	37462	21498	37636

**Appendix 6 - Cost of cultivation per hectare of Banana  
during the year 1988-89**

Components of different cost concept	Holding size class			
	Small	Medium	Large	All sizes
1	2	3	4	5
1. Hired human labour	7363	6184	2257	6702
2. Animal labour	9	-	-	5
3. Machine labour	672	346	-	505
4. Seed/seedlings	2838	2230	1170	2506
5. Farm yard manure and chemical fertilizers	8688	6551	8296	7808
6. Plant protection	331	212	-	266
7. Land tax and irrigation cess	67	612	25	285
8. Repair & maintenance charges	81	55	-	75
9. Interest on working capital	2253	2019	1209	2113
10. Other expenses	2630	4666	367	3337
11. Total cost 'A' (1-10)	24932	22875	13324	23602
12. Interest on fixed capital	623	619	6	618
13. Cost 'B1' (11+12)	25555	23494	13330	24220
14. Interest on land value	42831	29200	12294	35747
15. Cost 'B' (13+14)	68386	52694	25624	59967
16. Imputed value of household labour	4597	3391	317	3997
17. Cost 'C' (15+16)	72983	56085	25941	63964

1362

