



Government of Kerala

***Report On
Cost of Cultivation 2001-02***

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Thiruvananthapuram**

Chapter I

GENERAL

1.1 Introduction

In order to chalk out various schemes in agricultural sector and for fixing the floor and support prices, proper assessment of the cost of cultivation and value of product is necessary. With this end in view, Government of Kerala in G.O (Rt) 466/79/plg. dtd. 27/10/1979 sanctioned a scheme for the annual survey on Cost of Cultivation of Important Crops in Kerala. The present report relates to the 22nd round of survey conducted during 2001-02

The crops covered during the period under study are given below:-

- 1 Paddy (3 seasons)
- 2 Coconut
- 3 Tapioca
- 4 Banana
- 5 Pepper
- 6 Ginger
- 7 Turmeric

1.2 Objectives

The main objective of this survey was to estimate the cost of cultivation per hectare of important crops in Kerala and to compare the cost under different concepts, over a period

1.3. Period of the Survey

The period of the survey was from 1/7/2001 to 30/6/2002.

1.4. Design of the Survey

The survey covered all the districts of Kerala by selecting 38 taluks, which are important growing centres of the different selected crops. From each selected taluk two investigator zones were selected using circular systematic sampling method.

Selection of cultivators

In selected Investigator zone a list of cultivators growing paddy in the previous autumn season is prepared from the last years Form I Diary of the EARAS. From this a list of 5 cultivators are selected at random for the current year cost of cultivation study on autumn paddy. Similar procedure is adopted for the selection of cultivators for winter and summer paddy also.

In case the cultivators selected for cost of cultivation study on Autumn Paddy possess suitable number of plots with other specified crops in stipulated area they may be selected for the cost of cultivation study on other crops like coconut, pepper, banana, tapioca etc.

If sufficient number of suitable plots are not available with the cultivators selected for Autumn paddy the required number of plots for crops other than paddy will be selected from the list of wet and dry land plots of the same investigator zone in last year. If the selected investigator zone in a taluk does not provide the required number of plots for these crops another Investigator zone in the same taluk will be selected at random for selection of the remaining required number of plots/cultivators for the study on other crops.

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

1	Paddy	Autumn	10 (5 holdings each from one Investigator zone)
		Winter	10 (5 holdings each from one Investigator zone)
		Summer	10 (5 holdings each from one Investigator zone)
2	Coconut		10 (5 holdings each from one Investigator zone)
3	Pepper		5 (Minimum 2 holdings in one Investigator zone)
4	Banana		5 (Minimum 2 holdings in one Investigator zone)
5	Tapioca		5 (Minimum 2 holdings in one Investigator zone)
6	Ginger		5 (Minimum 2 holdings in one Investigator zone)
7	Turmeric		5 (Minimum 2 holdings in one Investigator zone)

A holding was considered for the study only if it contained at least 25 cents under the crops in the case of paddy, and 10 cents for tapioca, banana, ginger and turmeric. In the case of perennial crops like coconut and pepper the holdings should have 25 trees/plants of which a minimum of 50% should be bearing trees/plants.

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

Size Group	Holding size	
	Paddy	Other crops
Small	< 0.40 hectare	<0.2 hectare
Medium	0.40 to < 2 hectare	0.20 to < 0.80 hectare
Large	? -2 hectare	? -0.80 hectare

Note:- < Less than ? - Greaterthan or Equal to

1.5 Schedules

Five schedules were designed for the survey

- Schedule -1 Selected Investigator zone
- Schedule -2 Summary of Form I Dairy
- Schedule -3 List of selected cultivators
- Schedule -4 General Particulars
- Schedule -5 In this schedule the cultivation expenses incurred for a crop in each fortnight is reported.

1.6 Field work

Fieldwork was done by 38 Investigators in 38 selected taluks, one investigator in each taluk. The investigators visited the selected holdings every fortnight and recorded fortnightly operations on schedule V. The field work was supervised by Taluk Statistical Officer at the taluk level and Deputy Director/ District officer at the District level .

1.7 Processing and Analysis of Data

The compilation and tabulation were done at the district level by the investigators posted for the survey. The state level consolidation of the data is done at the Directorate and the report writing and analysis are done at the Directorate.

1.8 Method of Estimation of Cost

(a) Concepts 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
- ii. Animal labour
- iii. Machine labour
- iv. Seed/ seed lings
- v. Farm yard manure and Chemical fertilizers
- vi. Plant protection
- vii. Land tax and Irrigation cess
- viii. Repair and maintenance charges of implements, machinery and buildings
- ix. Interest on working capital
- x. 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

In the production process certain inputs from home stocks are used. In order to estimate 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 are 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 own stock and exchange human labour |
| iii | Owned and Exchange animal labour | The charges paid 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 (house grown) seed has been imputed at the prices prevalent in the investigator zone concerned at the time of sowing |

vii	Farm produced manure	Imputed at the rate prevalent in the zone concerned.
viii	Interest on fixed capital	Interest on the present value of fixed assets such as land, farm, building, implements, machinery, irrigation structure, equipments 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 of 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 calculated at the market prices.

(C) Allocation of joint costs to different crops

Some of the inputs used for the cultivation of one crop are common for many 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 crop
ii	Interest on fixed capital (excluding land)	In proportion to the area under the crop
iii	Interest on land value	Interest on the value of land under the crop

(D) Procedure for valuation of farm assets

i	Own farm buildings (cattle sheds, storage shed etc)	Valuated at prices prevailing in the locality
ii	Implement and other machinery	Valuated at prevalent market prices
iii	Livestock (only draught animals)	Valuated at prevalent market prices

CHAPTER 2

RESULTS OF THE SURVEY

Paddy is cultivated in the state in three seasons Viz. Autumn (Virippu), Winter (Mundakan) and summer (Punja) Details of the survey results are given separately.

1. Autumn Paddy

The total number of holdings selected for the cost of autumn paddy cultivation during 2001-02 were 354. They were scattered in all the districts of the selected 38 taluks in the state. The number of holdings selected and the area under the crops in each size class viz. small medium and large are given below:

Table 1 - Area under autumn paddy during 2001-02

Holding size class	No of selected holdings	Area under the crop in the sample (ha)	Percentage	Area per holding (ha)
Small	204	49.24	22.37	0.24
Medium	122	85.25	38.72	0.70
Large	28	85.66	38.91	3.06
Total	354	220.15	100.00	0.62

The total operational area of the holdings was 220.15 hectare had an average size of 0.62 hectare per holding.

A. Cost of cultivation

The estimated per hectare cost of autumn paddy cultivation is furnished below:

Table 2- Cost of cultivation per hectare of paddy (autumn) during 2001-02

Sl No	Component of different cost concept	Cost per hectare (in Rs)	% Distribution of cost
1	Hired human labour	12456	60.81
2	Animal labour	567	2.77
3	Machine labour	2142	10.46
4	Seed / seedlings	1194	5.83
5	Farmyard manure and chemical fertilizers	2284	11.15
6	Plant protection	226	1.10
7	Land tax and irrigation cess	186	0.91
8	Repair and maintenance charges	211	1.03
9	Interest on working capital	957	4.67
10	Other expenses	261	1.27
11	Total cost 'A' (1-10)	20484	100.00
12	Interest on fixed capital	1255	
13	Cost 'B1' (11+12)	21739	
14	Interest on land value	14699	
15	Cost 'B' (13+14)	36438	
16	Imputed value of household labour	657	
17	Cost 'C' (15+16)	37095	

Price paid by farmers for cultivating one hectare of paddy field for hired labour input constitutes to 61% of total cost 'A'.

The following table illustrates the percentage of hired labour hours engaged in autumn paddy cultivation to total labour hours.

Table 3 Percentage of Hired human labour hours to total human labour hours

Sex	Holding size class			
	Small	Medium	Large	All Sizes
Male	15.36	14.45	15.51	15.06
Female	42.90	67.89	68.07	61.27
Total	58.26	82.34	83.58	76.33

From the above table it is seen that the proportion of hired labour to total human labour input steadily increases with the increase in the size of holdings. Among size group large size class mainly depend for hired labour (84%)

Seed /Seedlings

Seed/seedlings an important input of paddy cultivation shares to 6 % of total cost 'A' . The per hectare price paid for seed/seedlings accounts to Rs.1194/-

Farmyard manure and chemical fertilizers

For paddy cultivation home produced manure and chemical fertilizers are commonly used. The price of home produced manure imputed and as such the share towards farmyard manure and chemical fertilizers constitutes to 11% of cost 'A' . The per hectare price paid by farmers towards this input is Rs.2284/-

When compared to previous year per hectare cost towards plant protection measures is an increasing trend. The percentage share of land tax and irrigation cess is nominal i.e. labour 1%. Expenditure on repair and maintenance of implements and machinery worked out to Rs.211 during 2001-02.

Cost 'B1'

Cost 'B' is estimated by adding the interest on fixed capital (excluding land) to cost 'A' . The estimated interest on fixed capital for 2001-02 is Rs1255/- and cost 'B1' is Rs.21739

Cost 'B' and cost 'C'

The interest on land value to cost 'B' and cost 'C' is estimated by adding the imputed value of household labour to cost 'B'. the estimated cost 'B' is Rs. 36438/- and cost 'C' is Rs. 37095/- respectively.

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) divided by the quantity of paddy produced per hectare.

Table: 4 Cost of production of paddy per quintal during autumn season during 2001-02

Concept of cost	Holding size class			
	Small	Medium	Large	All Sizes
Cost 'A'	646	483	399	527
Cost 'B'	1634	1279	741	1180
Cost 'C'	1706	1324	766	1223

The following table illustrates the comparison of cost of production per quintal of autumn paddy with the previous year.

Table: 5 Cost of production per quintal of autumn paddy during 200-01 and 2001-02

Concept of cost	2000-01	2001-02	% of increase/ decrease
Cost 'A'	605	527	-12.89
Cost 'B'	1411	1180	-16.37
Cost 'C'	1456	1223	-16.00

Table : 6 Cost of Cultivation of Autumn Paddy during the year 2000-01 & 2001-02

Concept of cost	Year	Holding size class			
		Small	Medium	Large	All Sizes
Cost 'A'	2000-2001	20494	17140	16063	17210
	2001-2002	22167	19643	21984	20484
Cost 'B'	2000-2001	50347	34870	30593	36568
	2001-2002	61389	33070	31380	36438
Cost 'C'	2000-2001	52774	35947	30829	37627
	2001-2002	63351	33734	31458	37095

B. Output

The value of product and by product of Autumn paddy cultivation for the year 2001-02 is given in the following table.

Table: 7 Value of product and by product per hectare (in Rs) during 2001-02

Product /Byproduct	Holding Size Class			
	Small	Medium	Large	All Sizes
Paddy	15633	18607	17393	17470
Straw	3735	3612	1674	2885
Total	19368	22219	19067	20355

ii. Winter paddy

During 2001-02 the study on cost of cultivation of winter paddy was conducted in 380 holdings. The sample area under winter paddy according to size class of holdings are given below:

Table 8 – Area under winter paddy during 2001-02

Holding size class	No of selected holdings	Area under the crop in the sample (ha)	Percentage	Area per holding (ha)
Small	181	41.91	14.55	0.23
Medium	154	116.95	40.60	0.76
Large	45	129.19	44.85	2.87
Total	380	288.05	100.00	0.75

The holdings under winter paddy cultivation had a total operational area of 380 hectares and the average size of holding was 0.75 hectare.

A Cost of cultivation

The various cost components of winter paddy cultivation is given below:

Table 9 – Cost of cultivation per hectare of paddy (Winter) during the year 2001-02

Sl.No	Component of different cost concept	Cost per hectare (in Rs)	Percentage distribution of Cost 'A'
1.	Hired human labour	9528	51.18
2.	Animal labour	483	2.59
3.	Machine labour	2053	11.02
4.	Seed/ Seedlings	923	4.96
5.	Farmyard manure and Chemical fertilizers	2877	15.46
6.	Plant Protection	399	2.14
7.	Land tax and Irrigation cess	154	0.83
8.	Repair and maintenance charges of implements, machinery and buildings	716	3.85
9.	Interest on working capital	845	4.55
10	Other expenses	636	3.42
11	Cost A (1-10)	18614	100.00
12	Interest on fixed capital	793	
13	Cost 'B1' (11+12)	19407	
14	Interest on land value	20783	
15	Cost 'B' (13+14)	40190	
16	Imputed value of household labour	1175	
17	Cost C (15+16)	41365	

Labour cost

The per hectare cost towards hired human labour in winter paddy cultivation comes to Rs. 9528. It accounts to 51% of the total cost 'A'. Animal labour cost is only about 3% of total cost 'A'. Whereas machine labour cost component is 11% of Cost 'A'

The percentage of hired human labour hours to the total human labour hours is given below:

Table 10 – Percentage of hired human labour hours to total human labour hours

Sex	Holding size class			
	Small	Medium	Large	All Sizes
Male	22.18	20.73	16.42	19.15
Female	61.95	69.42	77.06	71.42
Total	84.13	90.18	93.48	90.57

Out of the total human labour hours engaged in winter paddy cultivation 91% is accounted by hired human labour of which female labour constitutes 71%.

Seed/Seedlings

During winter paddy cultivation an amount of Rs. 923 had spent towards see/seedling cost per hectare.

Farmyard manure and chemical fertilizers attains 2nd place among the various items of cost 'A'. It shares to 15% of the total cost 'A'. Plant protection is only 2% of total cost 'A'

Cost 'B1' and Cost 'B'

Per hectare interest on fixed capital is estimated as Rs. 793 during 2001-02 for winter paddy cultivation. As such cost 'B1' is estimated as Rs. 19407/-. Where as per hectare interest on land value computed at Rs. 20783 during this year. Hence cost 'B' reached a level of Rs. 40190/-

Cost 'C'

While imputing the value of house hold labour the per hectare cost is Rs 1175/-. Accordingly Cost 'C' is estimated as Rs. 41365/- during 2001-02

The estimated cost for winter paddy cultivation under three major concepts are given below:

Table: 11 Cost of cultivation of winter paddy (Rs/ha)

Concept of cost	Holding Size Class			
	Small	Medium	Large	All Sizes
Cost 'A'	21760	19086	16942	18614
Cost 'B'	44528	46541	32591	40190
Cost 'C'	47035	47809	33249	41365

Tale: 12 Cost of cultivation of winter paddy (Rs/Ha) for 2000-01 and 2001-02

Concept of cost	Year	Holding size class			
		Small	Medium	Large	All Sizes
Cost 'A'	2000-2001	17715	15211	16666	16318
	2001-2002	21760	19086	16942	18614
Cost 'B'	2000-2001	32920	34067	26911	31154
	2001-2002	44528	46541	32591	40190
Cost 'C'	2000-2001	34788	35009	27568	32173
	2001-2002	47035	47809	33249	41365

B. Output

The estimated value of paddy and straw obtained from winter paddy cultivation is given below:

Table 13- Value of output (Rs/ha)

Product/By-product	Holding size class			
	Small	Medium	Large	All Sizes
Paddy	17484	16168	14451	15589
Straw	6940	6851	8572	7636
Total	24424	23019	23023	23225

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 product per hectare from the cost of cultivation per hectare) by the yield per hectare. The details are given below:

Table 14 Cost of production of per quintal of winter paddy (Rs./he) 2001-02

Concept of cost	Holding Size Class			
	Small	Medium	Large	All Sizes
Cost 'A'	505	432	295	434
Cost 'B'	1281	1401	846	1191
Cost 'C'	1367	1446	870	1233

The cost of production of winter paddy per quintal for 2000-01 and 2001-02 are presented below for comparison

Table 15: Cost of production of winter paddy per quintal (in Rs/ha) for 2000-01 and 2001-02

Concept of cost	Year	Holding size class			
		Small	Medium	Large	All Sizes
Cost 'A'	2000-2001	544	477	412	453
	2001-2002	505	432	295	434
Cost 'B'	2000-2001	1205	1263	713	983
	2001-2002	1281	1401	846	1191
Cost 'C'	2000-2001	1286	1302	733	1019
	2001-2002	1367	1446	870	1233

iii Summer (Punja) paddy

The total number of holdings selected for the study on cost of cultivation of summer paddy was 296 during 2001-02. The details of these holdings are given below:

Table 16: Area under summer paddy during 2001-02

Holding size class	No of selected holdings	Area under the crop in the sample (ha)	Percentage	Area per holding (ha)
Small	149	35.56	14.06	0.24
Medium	113	91.81	36.29	0.81
Large	34	125.60	49.65	3.69
Total	296	252.97	100.00	0.85

296 holdings selected during the period under report had a total operational area of 253 hectares. The average size of holding was 0.85 hectare.

A Cost of cultivation

Per hectare cost of cultivation of summer paddy is given in the following table

Table 17. Cost of cultivation per hectare of summer paddy for the year 2001-02

Sl. No	Component of different cost concept	Cost per hectare (in Rs)	% Distribution of cost 'A'
1	Hired human labour	11742	53.98
2	Animal labour	588	2.71
3	Machine labour	1986	9.13
4	Seed / seedlings	1210	5.56
5	Farmyard manure and chemical fertilizers	2766	12.71
6	Plant protection	684	3.14
7	Land tax and irrigation cess	256	1.18
8	Repair and maintenance charges of implements, machinery and building	282	1.30
9	Interest on working capital	1010	4.64
10	Other expenses	1230	5.65
11	Total cost 'A' (1-10)	21754	100
12	Interest on fixed capital	818	
13	Cost 'B1' (11+12)	22572	
14	Interest on land value	10838	
15	Cost 'B' (13+14)	33410	
16	Imputed value of household labour	1232	
17	Cost 'C' (15+16)	34642	

During the year 2001-02 in summer paddy cultivation labour cost component shares 63% of total cost 'A' Seedling cost per hectare is Rs. 1210/- Farmyard manure and chemical fertilizers a tributes to 13% of total cost 'A'

Cost B1 and cost 'B'

In summer paddy cultivation of cost "B¹" is estimated as Rs. 22572/- where as cost B arrived at Rs 33410/-

Cost 'C'

Cost 'C' is estimated by adding the imputed value of household labour to cost "B". This amounts to Rs 34642/ during the year under review.

While analysing the percentage of hired human labour hours to the total human labour hours engaged in summer paddy cultivation it is seen that female participation is more (67%) than that of male (20%) participation. Details are given below:

Table 18- Percentage of hired human labour hours engaged in summer paddy cultivation

Holding size class	Male	Female	Total
Small	20.36	56.32	76.68
Medium	15.82	68.14	83.96
Large	24.50	68.87	93.37
Total	20.19	66.51	86.70

Out put

Value of product and by product received from summer paddy cultivation per hectare during 2001-02 is Rs 26252/- which is shown as below:

Table 19- Value of out put (Rs/ha)

Product/ By-product	Holding Size Class			
	Small	Medium	Large	All Sizes
Paddy	20357	23412	23985	23267
Straw	3531	3484	2084	2985
Total	23888	26896	26069	26252

Cost of production of paddy per quintal

During summer paddy cultivation for producing one quintal of paddy an amount of Rs 303/- is expended when cost 'A' is considered. Details are given below:

Table 20 – Cost of production of summer paddy per quintal during 2001-02

Concept of cost	Holding Size Class			
	Small	Medium	Large	All Sizes
Cost 'A'	278	220	201	303
Cost 'B'	316	248	234	337
Cost 'C'	398	307	261	388

A comparison between the cost of production during 2000-01 and 2001-02 is given in the following table:

Table 21. Cost of production of summer paddy per quintal during 2000-01 and 2001-02

Concept of cost	2000-01	2001-02
Cost 'A'	436	303
Cost 'B'	689	337
Cost 'C'	719	388

2.2 Coconut

For the survey on cost of cultivation of coconut during 2001-02 380 holding were selected. The details are as follows:-

Table: 22 Number Holdings and Area under coconut

Holding size class	No of holdings	Area under the coconut in the sample (ha)	Percentage	Area per holding (ha)
Small	100	19.28	8.59	0.19
Medium	187	76.40	34.03	0.41
Large	93	128.86	57.39	1.39
All Size	380	224.54	100.00	0.59

From the above table it is seen that the selected holdings had total area of 224.54 hectare and average size of a holding was 0.59 hectare

Number of bearing and non – bearing trees

Table 23 Number of bearing and non – bearing trees per ha.

Type of trees	No. of trees per ha.	Percentage
Bearing	163	76.17
Non-bearing	51	23.83
Total	214	100.00

A. Cost of Cultivation

Table –24 Cost of Cultivation Per hectare of coconut during the year 2001-02

Sl. No	Components of different cost concepts	Cost per hectare (Rs)	% distribution of cost 'A'
1	Hired human labour	6477	54.41
2	Animal labour	2	0.02
3	Machine labour	152	1.28
4	Seed / seedlings	19	0.16
5	Farmyard manure and chemical fertilizers	3351	28.15
6	Plant protection	64	0.54
7	Land tax and irrigation cess	70	0.58
8	Repair and maintenance charges	190	1.60
9	Interest on working capital	1059	8.90
10	Other expenses	519	4.36
11	Total cost 'A' (1-10)	11903	100.00
12	Interest on fixed capital	1580	
13	Cost 'B1' (11+12)	13483	
14	Interest on land value	150752	
15	Cost 'B' (13+14)	164235	
16	Imputed value of household labour	1267	
17	Cost 'C' (15+16)	165502	

The cost of cultivation of coconut is estimated under four different concepts of cost viz. Cost 'A', Cost 'B1', Cost 'B' and Cost 'C'.

Cost 'A' consists of cash and other kind expenses, which is worked out to Rs. 11903/- per hectare during 2001-02. Among this hired human labour cost constitutes to 54%. Next major item is farmyard manure and chemical fertilizers shares to 28% of the total cost 'A'.

The following table reveals the percentage distribution of hired human labour participation in coconut cultivation to the total labour hours.

Table 25 Percentage Distribution of hired human labour hours to the total human hours

Sere	Holding Size Class			
	Small	Medium	Large	All Sizes
Male	54.62	65.67	66.85	65.03
Female	9.53	11.04	15.78	13.23
Total	64.15	76.71	82.63	78.26

In Coconut cultivation about 78% of the total human labour hours has been shared by hired human labour.

Cost 'B¹' and Cost 'B'

When considering the interest on fixed capital (excluding land) Cost 'B¹' is found to be Rs.13483/-

Per hectare interest on land value is estimated as Rs 150752/- Accordingly Cost 'B' arrived at a cost of Rs. 164235/-

Cost 'C'

Cost 'C' is estimated by adding the imputed value of house hold labour to Cost 'B' Cost 'C' is estimated as Rs. 165502/-.

The following table illustrates a comparison of cost of cultivation per hectare with previous years.

Table 26 Cost of Cultivation of Coconut per hectare during 2000-01 & 2001-02

Sl No	Concept of Cost	Cost Per hectare (Rs)	
		2000-01	2001-02
1	Cost 'A'	12955	11903
2	Cost 'B'	165318	164235
3	Cost 'C'	166305	165502

B. Value of Out put

In Coconut cultivation, value of out put per hectare is seen as Rs 22920/-

Table 27 Value of Out put / Hectare

Out Put	Value (Rs)
Product	21874
By-Product	1046
Total	22920

2.3 Tapioca

During 2001-02 for the cost of Cultivation study on tapioca 188 holdings were selected. Details of these holdings are given below:

Table: 28 Area and Number of Holdings Selected

Size class	No of selected holdings	Area under the crop in the sample (ha)	Percentage to total area of Selected holdings	Are per holding (ha)
Small	113	15.08	23.12	0.13
Medium	63	28.94	44.38	0.46
Large	12	21.19	32.50	1.77
All Size	188	65.21	100.00	0.35

The selected holdings had a total operational area of 65.21 hectares. The average size of holding is 0.35 hectare.

A. Cost of Cultivation

The Cost of cultivation per hectare of tapioca under different cost concepts are given below:-

Table 29: The Cost of cultivation per hectare of tapioca during the year 2001-02

Sl. No	Components of different cost concepts	Cost per hectare (Rs)	% distribution of cost 'A'
1	Hired human labour	16274	62.59
2	Animal labour	13	0.05
3	Machine labour	300	1.15
4	Seed / seedlings	517	1.99
5	Farmyard manure and chemical fertilizers	5322	20.47
6	Plant protection	79	0.30
7	Land tax and irrigation cess	39	0.15
8	Repair and maintenance charges	133	0.51
9	Interest on working capital	2348	9.03
10	Other expenses	978	3.76
11	Total cost 'A' (1-10)	26003	100.00
12	Interest on fixed capital	1426	
13	Cost 'B1' (11+12)	27429	
14	Interest on land value	93442	
15	Cost 'B' (13+14)	120871	
16	Imputed value of household labour	2424	
17	Cost 'C' (15+16)	123295	

For cultivating one hectare of tapioca an amount of Rs 16274/- that is 63% Cost 'A' is expended as hired human labour cost. Where as machine labour cost is below 1.15% of total Cost 'A'. Expenditure towards farmyard manure and chemical fertilizers accounts to 20% of cost 'A'. Seedling cost also showed are increasing trend. The percentage of hired human labour hours engaged in tapioca cultivation to the total labour hours is given below:

Table: 30 Percentage distribution of hired human labour hours

Sex	Holding Size Class			
	Small	Medium	Large	All Sizes
Male	52.2	60.21	54.96	56.43
Female	8.95	13.96	37.34	21.96
Total	61.15	74.17	92.30	78.39

The proportion of hired human labour hours to total human labour is seen as increasing with the increase in the size of holding.

Cost 'B¹' and Cost 'B'

In tapioca cultivation interest on fixed capital is seen as Rs. 1426/- during the year under review, when compared to the previous year Cost 'B' increased from Rs 26811 to 27429. Where as cost 'B' is estimated as Rs 120871/- during this year.

Cost 'C'

Cost 'C' is estimated by adding the imputed value of house holding labour to cost 'B'. It is estimated as 123295 during 2001-02.

B. Value of Out put.

Value of out put of tapioca during 2001-02 is found to be Rs 31651/-

2.4 Banana

During 2001-02 for the estimated cost of cultivation of banana 180 holdings were selected. The details of these holdings in each, size class is given in the following table.

Table: 31 Area and Number of holdings selected

Size class	No of selected holdings	Area under the crop in the sample (ha)	Percentage Selected holdings	Are per holding (ha)
Small	139	13.25	34.88	0.10
Medium	42	16.16	42.54	0.38
Large	8	8.58	22.58	1.07
All Size	189	37.99	100.00	0.20

The selected holding has a total operational area of 37.99 hectare. The average size of holding is 0.20 hectare.

A. Cost of Cultivation

The cost per hectare of banana cultivation under different items and their percentage distribution to the total cost 'A' is given in the following table.

Table: 32 Cost of Cultivation per hectare of Banana during 2001-02

Sl. No	Components of different cost concepts	Cost per hectare (Rs)	% Distribution of cost 'A'
1	Hired human labour	26814	28.26
2	Animal labour	16	0.02
3	Machine labour	891	0.94
4	Seed / seedlings	7536	7.94
5	Farmyard manure and chemical fertilizers	34615	36.49
6	Plant protection	1346	1.42
7	Land tax and irrigation cess	1016	1.07
8	Repair and maintenance charges	744	0.79
9	Interest on working capital	13426	14.15
10	Other expenses	8464	8.92
11	Total cost 'A' (1-10)	94868	100.00
12	Interest on fixed capital	1530	
13	Cost 'B1' (11+12)	96398	
14	Interest on land value	54368	
15	Cost 'B' (13+14)	150766	
16	Imputed value of household labour	9227	
17	Cost 'C' (15+16)	159993	

Above table shows that in banana cultivation major expenditure is incurred for farmyard manure and chemical fertilizers. The next share goes to hired human labour. The percentage of hired human labour hours engaged in Banana cultivation to the total labour hours is given below.

Table: 33 Percentage distributions of hired human labour hours to the total human labour hour

Sex	Holding Size Class			
	Small	Medium	Large	All Sizes
Male	53.87	52.57	74.44	57.48
Female	7.17	10.48	2.83	7.89
Total	61.04	63.05	80.27	65.37

In Banana cultivation male participation is larger than female participation. About 72% of the total human labour hours constituted for hired human labour and the remaining towards household labour hours.

Cost 'B¹'

Cost 'B¹' is estimated by adding the interest on fixed capital (including land) to cost 'A'. It is Rs. 96398/ during the year 2001-2002. Per hectare interest on land value is estimated as Rs. 104368/.

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 imputed value of household labour to cost 'B'. During this round cost 'B' is estimated as Rs. 150766/ad cost 'C' is Rs. 159993/. The imputed value of household labour is Rs. 9227/- per hectare.

B. Value of out put

The value of output of Banana is Rs. 101547/ during 2001 – 2002.

2.5 Pepper

The number of holdings selected for the study on cost of cultivation of pepper was 190 during 2001 – 2002. The details of these holdings are given below:

Table 34 - Area under Pepper during 2001-02

Holding size class	No of selected holdings	Area under the crop in the sample (ha)	Percentage	Are per holding (ha)
Small	136	11.63	30.70	0.09
Medium	48	14.65	38.67	0.31
Large	6	11.60	30.63	1.93
Total	190	37.88	100.00	0.20

The holdings selected during the period under report have a total operational area of 37.88 hectares. The average size of holding was 0.20 hectare.

A. Cost of cultivation

The cost of cultivation per hectare of pepper is given in the following table.

Table 35- Cost of cultivation per hectare of pepper during 2001-02

Sl No	Component of different cost concept	Cost per hectare (in Rs)	% Distribution of cost 'A'
1	Hired human labour	8292	52.64
2	Animal labour		
3	Machine labour		
4	Seed / seedlings	87	0.55
5	Farmyard manure and chemical fertilizers	5125	32.54
6	Plant protection	328	2.08
7	Land tax and irrigation cess	76	0.48
8	Repair and maintenance charges	196	1.25
9	Other expenses	241	1.53
10	Interest on working capital	1407	8.93
11	Total cost 'A' (1-10)	15752	100.00
12	Interest on fixed capital	2232	
13	Cost 'B1' (11+12)	17984	
14	Interest on land value	166864	
15	Cost 'B' (13+14)	184848	
16	Imputed value of household labour	1786	
17	Cost 'C' (15+16)	186634	

From the above table it is seen that about 53% of the total cost 'A' constitutes to labour cost. The percentage of hired human labour hours engaged in the cultivation of pepper during 2001 – 2002 is given below. Expenditure on farmyard manure and chemical fertilizers came to 33 of 'A' cost.

Table 36 – Percentage of hired human labour hours engaged in pepper cultivation

Sex	Holding size class			
	Small	Medium	Large	All Sizes
Male	51.20	73.73	61.83	62.50
Female	6.07	5.63	20.73	9.30
Total	57.27	79.36	82.56	71.80

In pepper cultivation 72% of the total human labour hours is hired human labour. The cost of seed/seedlings per hectare is found to be Rs. 87/- during this year. Out of total cost 'A' 33% is spent towards farmyard manures and chemical fertilizers. The expenditure towards plant protection measures is estimated to 2% of the cost 'A' Land tax and irrigation cess is nominal i.e., below one percent.

Value of out put

The value of output of pepper is found to be Rs. 19884 per hectare during 2001-2002.

2.6 Ginger

Details of the number of holdings selected for the cost of cultivation study during 2001-2002 is given below.

Table 37 - Area and number of holdings under Ginger cultivation 2000-01

Holding size class	No of selected holdings	Area under the crop in the sample (ha)	Percentage to total Area	Average per holding (ha)
Small	129	12.69	37.65	0.10
Medium	37	13.58	40.32	0.37
Large	7	7.43	22.03	1.06
All sizes	173	33.70	100.00	0.19

The total number of holdings selected for pepper cultivation study was 173. It covered an area of 33.70 hectares. The average size per holding was 0.19 hectare.

A. Cost of cultivation

The per hectare cost of cultivation for ginger cultivation is estimated as Rs. 61170/- when considered the concept of cost 'A'. Among the various components of cost 'A' the major share accounts to labour cost (33%) in pepper cultivation in terms of cost 'A' concept. Details are given below.

Table 38- Cost of cultivation per hectare of Ginger during the year 2001-02

Sl No	Component of different cost concept	Cost per hectare (in Rs)	% Distribution of cost
1	Hired human labour	19720	32.24
2	Animal labour		
3	Machine labour	486	0.79
4	Seed / seedlings	18756	30.66
5	Farmyard manure and chemical fertilizers	12836	20.98
6	Plant protection	965	1.58
7	Land tax and irrigation cess	324	0.53
8	Repair and maintenance charges of implements, machinery and building	112	0.18
9	Interest on working capital	5521	9.03
10	Other expenses	2450	4.01
11	Total cost 'A' (1-10)	61170	100.00
12	Interest on fixed capital	964	
13	Cost 'B1' (11+12)	62134	
14	Interest on land value	82580	
15	Cost 'B' (13+14)	144714	
16	Imputed value of household labour	2315	
17	Cost 'C' (15+16)	147029	

The percentage distribution of hired human labour hours engaged in ginger cultivation shows that large size class is mainly depended for hired human labour and it is about 86% of the total human labour hours which is shown as below.

Table 39 – Percentage of hired human labour hours engaged in Ginger cultivation

Sex	Holding size class			
	Small	Medium	Large	All Sizes
Male	50.04	48.65	69.43	59.87
Female	24.88	28.72	26.31	26.40
Total	74.92	77.37	95.74	86.27

Cost 'B¹' cost B and cost C

While considering the interest on fixed capital cost B¹ is estimated as Rs. 62134/-. Where as when we considered interest on land value cost B is estimated as Rs. 144714/. Imputed value of household labour is worked out as Rs. 2315/- for cultivating a hectare of Ginger. Accordingly cost 'C' is estimated as Rs. 147029/-.

Out put

The per hectare value of output received from Ginger cultivation is seen as Rs. 51331/- during 2001-2002.

2.7 Turmeric

During the year under review for studying the cost of cultivation of turmeric 131 holdings were selected. Details are given below.

Table 40 – Number of holdings and area under Turmeric cultivation

Holding size class	No of selected holdings	Area under the crop in the sample (ha)	Percentage to total area	Average per holding (ha)
Small	96	5.63	47.67	0.06
Medium	33	4.26	36.06	0.13
Large	2	1.93	16.27	0.96
All size	131	11.82	100.00	0.09

The selected holdings had a total operational area of 11.82 hectare during 2001-02. The average size of a holding was 0.09 hectare.

Cost of cultivation

The per hectare cost of cultivation of turmeric under different cost components is given below.

Table 41 – Cost of cultivation of Turmeric during the year 2001-02

Sl.No	Component of different cost concept	Cost per hectare (in Rs)	Percentage distribution of Cost 'A'
1.	Hired human labour	16825	40.80
2.	Animal labour		
3.	Machine labour	964	2.34
4.	Seed/Seedlings	8384	20.33
5.	Farmyard manure and Chemical fertilizers	9868	23.93
6.	Plant Protection	433	1.05
7.	Land tax and Irrigation cess	78	0.19
8.	Repair and maintenance charges of implements, machinery and buildings	288	0.70
9.	Interest on working capital	3715	9.01
10	Other expenses	680	1.65
11	Cost A (1-10)	41235	100.00
12	Interest on fixed capital	841	
13	Cost 'B1' (11+12)	42076	
14	Interest on land value	84766	
15	Cost 'B' (13+14)	126842	
16	Imputed value of household labour	4634	
17	Cost C (15+16)	131476	

For cultivating a hectare of turmeric paid out costs which in consists of cash and kind expenses is worked out to Rs. 41235/- during 2001-2002. In this labour cost only accounts to 43% of the total cost. In turmeric cultivation 84% of the total human labour hours is shared by hired human labour.. Details of this distribution according to sex and size class are given below.

Table 42 – Percentage of hired human labour hours engaged in Turmeric cultivation

Sex	Holding size class			
	Small	Medium	Large	All Sizes
Male	48.32	62.81	67.48	57.61
Female	21.06	29.87	32.31	26.54
Total	69.38	92.68	99.79	84.15

Cost B¹, Cost B and Cost C

Per hectare cost B¹ of turmeric cultivation is found to be Rs. 42076 while considering the land value cost B is estimated as Rs. 126842/ where as cost 'C' is seen as Rs. 131476/-.

Value of out put

The per hectare value of output received from Turmeric cultivation is worked out to Rs. 49739/ during the year 2001-2002.

Chapter – 3

Summary of findings

The data furnished in this report are collected through the cost of cultivation Survey 2001-02. The crops covered in this study are paddy (Autumn, winter and summer), coconut, Tapioca, Banana, Pepper, Ginger and Turmeric.

1. Autumn Paddy

The per hectare cost of cultivation of Autumn paddy when considered the cost concept of 'B¹' was Rs.21,739/- during the period under review. Where as the cost of production per quintal of Autumn paddy while considering the cost concept 'B' accounts to Rs.1180/- cost benefit analysis of Autumn paddy shows that benefit was negative (-14.71%)

2. Winter Paddy

The estimated per hectare cost of cultivation of winter paddy of cost 'B¹' was Rs.19,407/- cost of production per quintal shares to Rs.1191/-. While taking the cost concept 'B'. Cost benefit analysis of winter paddy cultivation exhibits a 16.25% loss during the period under review.

3. Summer Paddy

When considering the cost concept of 'A' the per hectare cost of cultivation of Summer Paddy accounts to Rs.21,754/-. Where as the cost 'B¹' and cost 'B' arrive at an amount of Rs.22,572/- and 33,410 respectively.

4. Coconut

Being a perennial crop the cultivation expenses are differed from other seasonal crops. While considering all there factors it is seen that during the period under study coconut cultivators faced a loss of 87% of their total cost.

5. Banana

Banana cultivators incurred a loss of -49.42% of their total cost.

6. Tapioca

When considering the total cost and total benefit received from the tapioca cultivation it is seen that during 2001-2002 the benefit is in a negative tune of -73.81%.

7. Pepper

Pepper, a foreign exchange earner of the state faced a severe attack during the period under study. Pepper cultivation witnessed a loss of 89% of their total cost.

8. Ginger

During 2001-02 Ginger cultivators in the state faced a loss 64.52% of their total cost.

9. Turmeric

The estimated loss of the Turmeric cultivators accounts to 60.78% of their total cost.

APPENDIX – 1

Cost of cultivation per Hectare of Autumn Paddy During the Year 2001-02

Sl. No.	Component of different cost concept	Holding size class			
		Small	Medium	Large	All Size
1.	Hired Human labour	12175	10386	12745	12456
2.	Animal labour	1068	824	438	567
3.	Machine labour	2690	2447	2635	2142
4.	Seed/Seedlings	1098	972	1206	1194
5.	Farm Yard Manure and Chemical Fertilizer	3127	2425	2561	2284
6.	Plant Protection	289	260	272	226
7.	Land Tax and Irrigation Cess	94	87	269	186
8.	Repaired maintenance charges	191	1023	564	211
9.	Interest on working capital	1042	883	1007	957
10.	Other Expenses	393	336	287	261
11.	Cost 'A' (1-10)	22167	19643	21984	20484
12.	Interest on fixed capital	557	602	1219	1255
13.	Cost 'B' (11+12)	22724	20245	23203	21739
14.	Interest on Land value	38665	12825	8177	14699
15.	Cost 'B' (13+14)	61389	33070	31380	36438
16.	Imputed value of House hold labour	1962	664	78	657
17.	Cost 'C' (15+16)	63351	33734	31458	37095

APPENDIX - 2

D. Cost of Cultivation Details 2001-02

Details of Per Hectare Cost

State : Kerala

Crop : Paddy (Winter)

Sl. No.	Components	Holding size class			
		Small	Medium	Large	All Size
1.	Hired Human labour	11556	9956	8483	9528
2.	Animal labour	1016	647	161	483
3.	Machine labour	1938	1879	2249	2053
4.	Seed/Seedlings	1084	1089	721	923
5.	Farm Yard Manure and Chemical Fertilizer	3112	2840	2833	2877
6.	Plant Protection	331	429	394	399
7.	Land Tax and Irrigation Cess	74	134	197	154
8.	Repaired maintenance charges	1124	769	314	716
9.	Interest on working capital	979	866	782	845
10.	Other Expenses	546	477	808	636
11.	Cost 'A' (1-10)	21760	19086	16942	18614
12.	Interest on fixed capital	1399	570	580	793
13.	Cost 'B1' (11+12)	23159	19656	17522	19407
14.	Interest on Land value	21369	26885	15069	20783
15.	Cost 'B' (13+14)	44528	46541	32591	40190
16.	Imputed value of House hold labour	2507	1268	658	1175
17.	Cost 'C' (15+16)	47035	47809	33249	41365

APPENDIX – 3

Cost of cultivation per Hectare of Summer Paddy During the Year 2001-02

Sl. No.	Components of different cost concept	Holding Size class			
		Small	Medium	Large	All Size
1.	Hired Human labour	11638	11530	11436	11742
2.	Animal labour	796	694	512	588
3.	Machine labour	1966	2234	1860	1986
4.	Seed/Seedlings	1248	1210	1326	1210
5.	Farm Yard Manure and Chemical Fertilizers	2876	2785	2894	2766
6.	Plant Protection	648	632	780	684
7.	Land Tax and Irrigation Cess	126	381	186	256
8.	Repair and maintenance charges	386	380	287	282
9.	Interest on working capital	991	997	1032	1010
10.	Other Expenses	650	864	1826	1230
11.	Cost 'A' (1-10)	21325	21707	22139	21754
12.	Interest on fixed capital	1108	896	488	818
13.	Cost 'B1' (11+12)	22433	22603	22627	22572
14.	Interest on Land value	15630	14840	12342	10838
15.	Cost 'B' (13+14)	38063	37443	34969	33410
16.	Imputed value of House hold labour	2684	1636	846	1232
17.	Cost 'C' (15+16)	40747	39079	35815	34642

APPENDIX – 4

Cost of cultivation per Hectare of Coconut during the Year 2001-02

Sl. No.	Components of different cost concept	Holding size class			
		Small	Medium	Large	All Size
1.	Hired Human labour	6763	7344	5921	6477
2.	Animal labour	16	3	0	2
3.	Machine labour	100	174	146	152
4.	Seed/Seedlings	31	39	6	19
5.	Farm Yard Manure and Chemical Fertilizers	4072	3817	2967	3351
6.	Plant Protection	71	100	41	64
7.	Land Tax and Irrigation Cess	45	67	75	70
8.	Repaired maintenance charges	177	165	219	190
9.	Interest on working capital	413	569	506	519
10.	Other Expenses	1147	1205	959	1059
11.	Cost 'A' (1-10)	12835	13483	10840	11903
12.	Interest on fixed capital	1310	1556	1693	1580
13.	Cost 'B1' (11+12)	14145	15039	12533	13483
14.	Interest on Land value	145103	177283	135866	150752
15.	Cost 'B' (13+14)	159248	192322	148399	164235
16.	Imputed value of House hold labour	2663	1555	887	1267
17.	Cost 'C' (15+16)	161911	193877	149286	165502

APPENDIX – 5

Cost of cultivation per Hectare of Tapioca During the Year 2001-02

Sl. No.	Components of different cost concept	Holding size class			
		Small	Medium	Large	All Size
1.	Hired Human labour	21065	14565	16836	16274
2.	Animal labour	10	25	0	13
3.	Machine labour	40	227	586	300
4.	Seed/Seedlings	581	450	561	517
5.	Farm Yard Manure and Chemical Fertilizers	6174	5981	5524	5322
6.	Plant Protection	49	108	62	79
7.	Land Tax and Irrigation Cess	54	51	14	39
8.	Repaired maintenance charges	166	132	25	133
9.	Interest on working capital	2846	2225	2498	2348
10.	Other Expenses	537	894	1408	978
11.	Cost 'A' (1-10)	31522	24658	27514	26003
12.	Interest on fixed capital	1903	1109	866	1426
13.	Cost 'B1' (11+12)	33425	25767	28380	27429
14.	Interest on Land value	146853	91897	57563	93442
15.	Cost 'B' (13+14)	180278	117664	85943	120871
16.	Imputed value of House hold labour	4555	2509	793	2424
17.	Cost 'C' (15+16)	184833	120173	86736	123295

APPENDIX – 6

Cost of cultivation per Hectare of Banana During the Year 2001-02

Sl. No.	Components of different cost concept	Holding size class			
		Small	Medium	Large	All Size
1.	Hired Human labour	25809	26867	26425	26814
2.	Animal labour	12	28	0	16
3.	Machine labour	790	1248	375	891
4.	Seed/Seedlings	7581	7841	7128	7536
5.	Farm Yard Manure and Chemical Fertilizer	26327	22341	25575	34615
6.	Plant Protection	869	1269	1897	1346
7.	Land Tax and Irrigation Cess	757	1437	631	1016
8.	Repaired maintenance charges	841	605	726	744
9.	Interest on working capital	7008	7391	7982	8464
10.	Other Expenses	8691	14311	18423	13426
11.	Cost 'A' (1-10)	78685	83338	89162	94868
12.	Interest on fixed capital	1483	1764	814	1530
13.	Cost 'B1' (11+12)	80168	85102	89976	96398
14.	Interest on Land value	59563	60350	50869	54368
15.	Cost 'B' (13+14)	156731	166452	184845	200766
16.	Imputed value of House hold labour	11836	9935	3862	9227
17.	Cost 'C' (15+16)	168567	176387	188707	209993

APPENDIX – 7

Cost of cultivation per Hectare of Pepper during the Year 2001-02

Sl. No.	Components different cost concept	Holding size class			
		Small	Medium	Large	All Size
1.	Hired Human labour	8968	8631	7936	8292
2.	Animal labour	0	0	0	0
3.	Machine labour	0	0	0	0
4.	Seed/Seedlings	282	164	0	87
5.	Farm Yard Manure and Chemical Fertilizer	4269	2871	5188	5125
6.	Plant Protection	181	574	196	328
7.	Land Tax and Irrigation Cess	47	63	112	76
8.	Repaired maintenance charges	166	145	222	196
9.	Interest on working capital	1399	1248	1348	1407
10.	Other Expenses	286	240	164	241
11.	Cost 'A' (1-10)	15598	13936	15166	15752
12.	Interest on fixed capital	1896	2652	2895	2232
13.	Cost 'B1' (11+12)	17494	16588	18061	17984
14.	Interest on Land value	176237	155486	181486	166864
15.	Cost 'B' (13+14)	193731	172074	199547	184848
16.	Imputed value of House hold labour	4784	2567	1351	1786
17.	Cost 'C' (15+16)	198515	174641	200898	186634

APPENDIX – 8

Cost of cultivation per Hectare of Ginger During the Year 2001-02

Sl. No.	Components of different cost concept	Holding size class			
		Small	Medium	Large	All Size
1.	Hired Human labour	18784	17568	24372	19720
2.	Animal labour	0	0	0	0
3.	Machine labour	688	284	867	486
4.	Seed/Seedlings	17234	16895	26132	18756
5.	Farm Yard Manure and Chemical Fertilizer	12862	12647	14534	12836
6.	Plant Protection	784	436	1085	965
7.	Land Tax and Irrigation Cess	158	380	414	324
8.	Repaired maintenance charges	118	186	98	112
9.	Interest on working capital	5221	5165	6811	5521
10.	Other Expenses	1860	3826	1124	2450
11.	Cost 'A' (1-10)	57709	57387	75437	61170
12.	Interest on fixed capital	640	1180	1210	964
13.	Cost 'B1' (11+12)	58349	58567	76647	62134
14.	Interest on Land value	92636	91840	76860	82580
15.	Cost 'B' (13+14)	150985	150407	153507	144714
16.	Imputed value of House hold labour	8634	4868	3217	2315
17.	Cost 'C' (15+16)	159619	155275	156724	147029

APPENDIX – 9

Cost of cultivation per Hectare of Turmeric During the Year 2001-02

Sl. No.	Components of different cost concept	Holding size class			
		Small	Medium	Large	All Size
1.	Hired Human labour	12824	18396	24632	16825
2.	Animal labour	0	0	0	0
3.	Machine labour	284	867	1234	964
4.	Seed/Seedlings	5321	7833	10086	8384
5.	Form Yard Manure and Chemical Fertilizer	6785	11534	16785	9868
6.	Plant Protection	564	342	681	433
7.	Land Tax and Irrigation Cross	64	82	96	78
8.	Repaired maintenance charges	67	134	328	288
9.	Interest on working capital	2630	3961	5527	3715
10.	Other Expenses (including soil condition)	524	636	1847	680
11.	Cost 'A' (1-10)	29063	43785	61216	41235
12.	Interest on fixed capital	788	1131	1214	841
13.	Cost 'B1' (11+12)	29851	44916	62430	42076
14.	Interest on Land value	98634	96385	89641	84766
15.	Cost 'B' (13+14)	128485	141301	152071	126842
16.	Imputed value of House hold labour	6236	2848	1740	4634
17.	Cost 'C' (15+16)	134721	144149	153811	131476