



Chapter I

GENERAL

1.1 Introduction

Reliable data on cost of production of different crops cultivated in the State are needed for formulating proper price policy and for implementing different measures for assisting the cultivators. Realising the importance of this need, Government of Kerala in G.O. (Rt) 466179/Plg. dated: 27/10/1979 sanctioned a scheme for an annual survey on Cost of Cultivation of Important Crops in Kerala. The present report relates to the 25th round (year) of survey conducted during 2004-05.

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

1.	Paddy (3 seasons)
2.	Coconut
3.	Tapioca
4.	Banana
5.	Pepper
6.	Arecanut
7.	Ginger
8.	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 1/7/2004 to 30/6/2005 (Agricultural year 2004-2005).

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 zones a list of cultivators growing paddy in the previous autumn season is prepared from the last year's Form I Diary connected with the EARAS works. From this, a list of 5 cultivators are selected at random engaged during the current year cost of cultivation study for the autumn paddy. Similar procedure is adopted for the selection of cultivators for winter and summer paddy.

In case the cultivators selected for cost of cultivation study on Autumn Paddy possess suitable number of plots of other

specified crops in stipulated area/numbers those will also be selected for the cost of cultivation study on other crops like Coconut, Pepper, Arecanut, Banana, Tapioca, etc.

If sufficient number of suitable plots are not available with the cultivators selected for the study of Autumn paddy, the required number of plots growing 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	Arecanut		10 (5 holdings each from one Investigator zone)
4	Pepper		5 (Minimum 2 holdings in one Investigator zone)
5	Banana		5 (Minimum 2 holdings in one Investigator zone)
6	Tapioca		5 (Minimum 2 holdings in one Investigator zone)
7	Ginger		5 (Minimum 2 holdings in one Investigator zone)
8	Turmeric		5 (Minimum 2 holdings in one Investigator zone)

A holding is 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 (small, medium and large) of a crop is 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	\geq -2 hectare	\geq -0.80 hectare

Note:- < Less than \geq - Greater than 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

Field work was done in 38 selected Taluks. One Investigator is posted in each Taluk for this purpose. The investigators visited the selected holdings/cultivators every fortnight and recorded fortnightly details of agricultural operations on schedule 5. The fieldwork was supervised by Taluk Statistical Officer/Statistical Inspector at the Taluk level and Deputy Director/ District officer /other district level Officer at the District level.

1.7 Processing and Analysis of Data

The compilation and tabulation were done at district level. The state level consolidation of the data, 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 (point out costs) actually incurred by the cultivators. This includes – expenses incurred for

- 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 (i.e. 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	Implements and other machinery	Valuated at prevalent market prices
iii	Livestock (only draught animals)	Valuated 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 in to account. The land value is estimated at the current market rate in the different areas. There is a controversy in the assessment of land value. The land value is increasing considerably. If the actual value is taken for calculating the interest on land value, no cultivation is profitable in the State. However, there is always a tendency to under report the land value. It is therefore necessary to evolve a method or criteria to estimate the land value reasonably while calculating the cost of cultivation of crops.

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CHAPTER 2

RESULTS OF THE SURVEY

i) Autumn Paddy

The details of holdings selected for the Cost of Cultivation study during 2004-05 are as shown below:

Table 1 - Area under autumn paddy during 2004-05

Holding size class	No of selected holdings	Area under the crop in the sample (ha)	Percentage	Average Area per holding (ha)
Small	190	43.13	20.08	0.23
Medium	142	94.62	44.06	0.67
Large	23	77.02	35.86	3.35
Total	355	214.77	100.00	0.60

A. Cost of cultivation

The cost of cultivation of autumn paddy is calculated under different cost concepts viz Cost 'A', Cost 'B', and cost 'C' respectively. Details are presented in the following table. As usual during this round also it is revealed that in autumn paddy cultivation among various cost components, hired labour input constitutes to the largest share (51%) when cost 'A' is considered. Machine labour cost shares to 11% of the total cost 'A'. Farmyard manure and chemical fertilizer accounts to the second largest share (15%) among the various cost components. Plant protection measures, another input of autumn paddy cultivation is estimated as 2% of the total cost 'A'.

Table 2- Cost of Cultivation per hectare of paddy (autumn) during 2004-05

Sl No	Component of different cost concept	Cost per hectare (in Rs)	% Distribution of cost
1	Hired human labour	9542	50.66
2	Animal labour	379	2.02
3	Machine labour	2161	11.48
4	Seed / seedlings	1125	5.97
5	Farmyard manure and chemical fertilizers	2900	15.40
6	Plant protection	347	1.84
7	Land tax and irrigation cess	60	0.32
8	Repair and maintenance charges	330	1.75
9	Interest on working capital	878	4.66
10	Other expenses	1113	5.90
11	Total cost 'A' (1-10)	18835	100
12	Interest on fixed capital	1024	
13	Cost 'B1' (11+12)	19859	
14	Interest on land value	21636	
15	Cost 'B' (13+14)	41495	
16	Imputed value of household labour	1204	
17	Cost 'C' (15+16)	42699	

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

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

Sex	Holding size class			
	Small	Medium	Large	All Sizes
Male	21.87	19.84	15.91	19.13
Female	61.91	69.83	75.44	69.61
Total	83.78	89.67	91.35	88.74

In autumn paddy cultivation 85% of the total labour hours shares to hired human labour.

Cost of production of paddy per quintal

Table: 4 Cost of production of Autumn paddy during 2003-04 & 2004-05

Concept of cost	Year	Holding size class			
		Small	Medium	Large	All Sizes
Cost 'A'	2003-04	19988	18043	21937	19932
	2004-05	21090	18858	17629	18835
Cost 'B'	2003-04	58067	54290	42219	50337

	2004-05	56314	42946	31439	41495
Cost 'C'	2003-04	60383	55522	43086	51629
	2004-05	58269	44141	32233	42699

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.

As such during 2004-05, it is seen that for producing one quintal of paddy during Autumn season Rs 469/- has been expended when cost 'A' is considered.

A comparison between the previous year and the current year, per quintal cost of production is presented below.

Table: 5 Per Quintal Cost of Production of Autumn paddy during 2003-04 & 2004-05

Concept of cost	Year	Holding size class			
		Small	Medium	Large	All Sizes
Cost 'A'	2003-04	501	367	494	466
	2004-05	509	471	455	469
Cost 'B'	2003-04	1771	1281	1004	1268
	2004-05	1372	1234	1152	1107
Cost 'C'	2003-04	1848	1312	1026	1302
	2004-05	1449	1390	1278	1497

B. Output

The value of product and by-product of Autumn Paddy cultivation for the year 2004-05 is given in the following table.

Table: 6 Value of product and by-product per hectare of Autumn paddy during 2004-05

Product/ By product	Holding size class			
	Small	Medium	Large	All size
Paddy	21226	20720	22879	21596
Straw	4985	4001	1835	3422
Total	26211	24721	24714	25018

ii). Winter paddy

The cost of cultivation study on winter paddy cultivation during 2004-05 was conducted in 380 holdings. Details of these holdings are given below:

Table 7 – Area under winter paddy during 2004-05

Holding size class	No of selected holdings	Area under the crop in the sample (ha)	Percentage	Area per holding (ha)
Small	181	40.33	13.58	0.22
Medium	162	117.17	39.46	0.72
Large	37	139.43	46.96	3.77
Total	380	296.93	100.00	0.78

In winter paddy cultivation, the total operational area of the selected holdings was 296.93. hectares and the average size of holding was 0.78 hectare.

A. Cost of cultivation

The various cost components of winter paddy cultivation is given below: In Winter paddy cultivation per hectare cost of cultivation of cash and other kind of expenses is worked out as Rs. 1970/- Hired below cost shares to 50% of the total cost. About 12% is expended towards machine labour cost. The expenditure towards farmyard manure and chemical fertilizers comes to 14% of the total cost.

Table 8 – Cost of cultivation per hectare of winter paddy during the year 2004-05

Sl.No	Component of different cost concept	Cost per hectare (in Rs)	Percentage distribution of Cost 'A'
1.	Hired human labour	9663	50.40
2.	Animal labour	384	2.00
3.	Machine labour	2292	11.96
4.	Seed/ Seedlings	1239	6.46
5.	Farmyard manure and Chemical fertilizers	2629	13.71
6.	Plant Protection	561	2.93
7.	Land tax and Irrigation cess	136	0.72
8.	Repair and maintenance charges of implements, machinery and buildings	302	1.58
9.	Interest on working capital	892	4.65
10	Other expenses	1072	5.59
11	Cost A (1-10)	19170	100
12	Interest on fixed capital	729	
13	Cost 'B1' (11+12)	19899	
14	Interest on land value	20935	
15	Cost 'B' (13+14)	40834	
16	Imputed value of household labour	987	
17	Cost C (15+16)	41821	

The percentage of hired human labour hours to the total human labour hours engaged in winter paddy cultivation is accounted as 91 percent. Of which 71% constitutes to female labour. Details are given below.

Table 9 – Percentage of hired human labour to total human labour hours

Sex	Holding size class			
	Small	Medium	Large	All Sizes
Male	26.16	22.30	17.09	20.72
Female	58.86	67.16	78.66	70.69
Total	85.02	89.46	95.75	91.41

Cost 'A' and Cost 'B'

Per hectare interest on fixed capital is estimated as Rs. 729 during 2004-2005 in winter paddy cultivation. Cost 'B' is estimated by adding the interest on fixed capital to total cost 'A'. Accordingly during 2004-05 cost 'B' is estimated as Rs. 19899/-.

Cost 'C'

For the calculation of cost of cultivation of paddy the value of household labour is imputed. Accordingly the per hectare imputed value of household labour is accounted as Rs.987/- Cost 'C' is estimated by adding the imputed value of house hold labour to Cost 'B'. As such cost 'C' is estimated as Rs. 41821/- in Winter paddy cultivation during 2004-05 per hectare cost of cultivation of winter paddy cultivation for 2003-04 and 2004-05 are presented below for comparison.

Table: 10 Cost of Cultivation per hectare of winter paddy during 2003-04 and 2004-05

Concept of cost	Year	Holding Size class			
		Small	Medium	Large	All size
Cost 'A'	2003-04	20357	18662	18707	18925
	2004-05	22068	20006	17652	19170
Cost 'B'	2003-04	62253	46109	30249	40498
	2004-05	53242	44002	34534	40834
Cost 'C'	2003-04	64539	47276	31173	41700
	2004-05	55252	45271	34987	41821

Cost of production of winter paddy

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.

During 2004-05 for producing one quintal of paddy small cultivators expended Rs. 485/- whereas large cultivators spent Rs. 509/- when the cost 'A' concept is considered. Details are presented below.

Table: 11 Per quintal Cost of production of winter paddy During 2004-05

Concept of cost	Holding Size Class			
	Small	Medium	Large	All Sizes
Cost 'A'	485	462	534	509
Cost 'B'	1547	1431	1123	1178
Cost 'C'	1809	1545	1239	1437

A comparison of cost of production per quintal of winter paddy during of 2003-04 and 2004-05 are given below.

Tale: 12 Per Quintal Cost of production of winter paddy During 2003-04 and 2004-05

Concept of cost	Year	Holding size class			
		Small	Medium	Large	All Sizes
Cost 'A'	2003-04	503	428	614	553
	2004-05	485	462	534	509
Cost 'B'	2003-04	1938	1241	1046	1272
	2004-05	1547	1431	1123	1178
Cost 'C'	2003-04	2017	1275	1068	1312
	2004-05	1809	1545	1239	1437

B. Output

The estimated value of out put from winter paddy cultivation is given below:

Table: - Value of output (Rs/ha)

Product/By-product	Holding size class			
	Small	Medium	Large	All Sizes
Paddy	19863	19270	18966	19206
Straw	6107	5514	2356	4111
Total	25960	24784	21322	23317

(iii) Summer Paddy (Punja)

During 2004-05 for the cost of cultivation study on summer paddy 265 number of holdings were selected. The details of there holdings are presented below.

Table 13 : Area under Summer Paddy during 2004-05

Holding size class	No of selected holdings	Area under the crop in the sample (ha)	Percentage	Area per holding (ha)
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Small	137	27.73	15.29	0.20
Medium	97	60.43	33.31	0.62
Large	31	93.27	51.40	3.01
All Size	265	181.43	100.00	0.68

The above table reveals that the total area under cultivation in the selected sample holdings comprises to 181.43 hectares and the average size of a holding is 0.68 hectare.

A. Cost of Cultivation

Cost of cultivation of summer paddy is estimated at different component of cost concepts viz. cost 'A', Cost 'B', cost 'B' and cost 'C'. Cost 'A' consists of cash and other kind expenses. During 2004-05 for cultivating one hectare of paddy field in summer season, it is seen that Rs. 23184/- expended by an average farmer when considering the concept of cost 'A'. Details are

Table 14: Cost of Cultivation per hectare of paddy (summer) during 2004-05

Sl. No	Component of different cost concept	Cost per hectare (in Rs)	% Distribution of cost 'A'
1	Hired human labour	9976	43.02
2	Animal labour	414	1.79
3	Machine labour	2803	12.09
4	Seed / seedlings	1081	4.66
5	Farmyard manure and chemical fertilizers	2618	11.29
6	Plant protection	724	3.12
7	Land tax and irrigation cess	351	1.52
8	Repair and maintenance charges of implements, machinery and building	410	1.77
9	Interest on working capital	1068	4.61
10	Other expenses	3739	16.13
11	Total cost 'A' (1-10)	23184	100
12	Interest on fixed capital	723	
13	Cost 'B1' (11+12)	23907	
14	Interest on land value	14183	
15	Cost 'B' (13+14)	38090	
16	Imputed value of household labour	1334	
17	Cost 'C' (15+16)	39424	

In paddy cultivation female labour participation is more than that of male labour. This common phenomenon can be seen in summer paddy cultivation also. The following table reveals this fact.

Table 15: Percentage of hired human labour hours engaged in summer paddy

Holding size class	Male	Female	Total
Small	22.01	55.82	77.83
Medium	20.80	70.81	91.61

Large	18.00	77.19	95.19
Total	19.69	71.27	90.96

In summer paddy cultivation about 91 percent of the total labour hours is engaged by the female labours.

B. Output

Table 16: Value of Out (Rs./ha)

Product/ By-product	Holding Size Class			
	Small	Medium	Large	All Sizes
Paddy	19095	23097	23509	22597
Straw	5758	4834	1621	3324
Total	24853	27931	25130	25921

Cost of Production of Paddy per Quintal during 2004-05

Cost of production of paddy per quintal is estimated by dividing the cost of cultivation per hectare from 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. During summer paddy cultivation for producing one quintal of paddy an amount of Rs. 673/- is required when cost 'A' is considered. Details are given below.

Table 17: Cost of production of summer paddy per quintal during 2004-05

Holding size class	Holding Size Class			
	Small	Medium	Large	All Sizes
Cost 'A'	546	503	786	673
Cost 'B'	1149	913	1308	1163
Cost 'C'	1254	945	1326	1198

A comparison between the cost of production of summer paddy per quintal during 2003-04 and 2004-05 is given in the following table.

Table 18: Cost of production of summer paddy per quintal during 2003-04 and 2004-05

Concept of cost	2003-04	2004-05
Cost 'A'	567	673
Cost 'B'	1041	1163
Cost 'C'	1087	1198

Above table reveals that when compared to the previous year, the cost of production of summer paddy per quintal during this year showed an increasing trend.

2.2 Coconut

For the cost of cultivation study on coconut during the year 2004-05, 372 number of holdings were selected. The details of these holdings are given below.

Table 19: Number of Holdings and Area under coconut

Holding size class	No of selected holdings	Area under the coconut in the sample (ha)	Percentage	Area per holding (ha)
Small	93	18.38	9.48	0.20
Medium	199	87.55	45.19	0.44
Large	80	87.83	45.33	1.10
Total	272	193.76	100.00	0.62

Table: Number of bearing and Non-bearing Trees per hectare

Type of trees	No. of trees per ha.	Percentage
Bearing	176	77
Non-bearing	52	23
Total	228	100

A. Cost of Cultivation**Table 20–Cost of Cultivation Per hectare of coconut during the year 2004-05**

Sl. No	Components of different cost concepts	Cost per hectare (Rs)	% distribution of cost 'A'
1	Hired human labour	10980	53.69
2	Animal labour	31	0.18
3	Machine labour	444	2.18
4	Seed / seedlings	132	0.66
5	Farmyard manure and chemical fertilizers	5659	27.66
6	Plant protection	44	0.23
7	Land tax and irrigation less	80	0.29
8	Repair and maintenance charges	346	1.69
9	Interest on working capital	1729	8.46
10	Other expenses	1014	4.96
11	Total cost 'A' (1-10)	20459	100.00
12	Interest on fixed capital	1513	
13	Cost 'B1' (11+12)	21972	
14	Interest on land value	260648	
15	Cost 'B' (13+14)	282620	
16	Imputed value of household labour	1647	
17	Cost 'C' (15+16)	284267	

The following table reveals percentage distribution of hired human labour hours to the total human labour hours.



Table 21: Percentage distribution of hired human labour hours to the total human labour hours

Sex	Holding Size Class			
	Small	Medium	Large	All Sizes
Male	59.58	55.28	71.39	48.59
Female	8.40	34.26	14.00	37.89
Total	67.98	89.54	85.39	86.48

B. Value of Out put

During 2004-05 in coconut cultivation, value of output received from one hectare is seen as Rs. 36456/- Details are presented below:

Table 22: Value of Out put / Hectare

Out Put	Value (Rs)
Product	35223
By-Product	1233
Total	36456

2.3 Arecanut

For the study on cost of cultivation of Arecanut during 2004-05, 353 holdings were selected. The details of these holdings are as follows:

Table. 23 Area and Number of holdings under Arecanut cultivation.

Holding size class	No of selected holdings	Area under the crop in the sample (ha)	Percentage	Are per holding (ha)
Small	244	13.88	26.66	0.06
Medium	81	17.07	32.80	0.23
Large	28	21.11	40.54	0.66
All size	353	52.06	100.00	0.16

The selected arecanut holdings had an operational area of 52.06 hectares. The average size per holding was 0.16 hectare.

A. Cost of Cultivation

Per hectare cost of cultivation of Arecanut under various component of cost concept are given below:

Table 24: Cost of Cultivation per hectare of Arecanut during the year 2004-05

Sl No	Component of different cost concept	Cost per hectare (in Rs)	% Distribution of cost
1	Hired human labour	15265	51.06
2	Animal labour	--	--
3	Machine labour	1152	3.85
4	Seed / seedlings	24	0.08
5	Farmyard manure and chemical fertilizers	8926	29.84
6	Plant protection	211	0.71
7	Land tax and irrigation cess	129	0.43
8	Repair and maintenance charges of implements, machinery and building	500	1.67
9	Interest on working capital	2661	8.90
10	Other expenses	1035	3.46
11	Total cost 'A' (1-10)	29903	100.00
12	Interest on fixed capital	1734	
13	Cost 'B1' (11+12)	31637	
14	Interest on land value	114765	
15	Cost 'B' (13+14)	146402	
16	Imputed value of household labour	4019	
17	Cost 'C' (15+16)	150421	

During the year under study when cost 'A' is considered 10% cost is shared to hired human labour in Arecanut cultivation. Details of the labour hours engaged in Arecanut cultivation is given in the following table.

Table 25: Percentage distribution of hired human labour hours to total human labour hours

Sex	Holding size class			
	Small	Medium	Large	All Sizes
Male	51.47	49.23	55.93	52.26
Female	14.10	24.79	28.64	23.59
Total	65.57	74.02	84.57	75.85

The survey results show that about 76 percent of the total human labour hours has been shared by hired human labour.

B. Value of Output

Value of output received from Arecanut cultivation per hectare during 2004-05 is Rs. 45392/-

2.4 Tapioca

During the period under report 190 holdings were selected for cost cultivating tapioca. Details of these holdings are given below:

Table 26: 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	Area per holding (ha)
Small	106	7.02	20.32	0.06
Medium	70	16.69	48.33	0.24
Large	14	10.83	31.35	0.77
All Size	190	34.54	100.00	0.18

The selected holdings had a total operational area of 34.54 hectares. The average size of holding is 0.18 hectare.

A. Cost of Cultivation

Table 27: The Cost of cultivation per hectare of tapioca during the year 2004-05

Sl. No	Components of different cost concepts	Cost per hectare (Rs)	% distribution of cost 'A'
1	Hired human labour	18696	56.00
2	Animal labour	13	0.04
3	Machine labour	354	1.06
4	Seed / seedlings	1044	3.13
5	Farmyard manure and chemical fertilizers	7416	22.21
6	Plant protection	107	0.32
7	Land tax and irrigation cess	77	0.23
8	Repair and maintenance charges	215	0.64
9	Interest on working capital	3008	9.02
10	Other expenses	2453	7.35
11	Total cost 'A' (1-10)	33383	
12	Interest on fixed capital	1500	
13	Cost 'B1' (11+12)	34883	
14	Interest on land value	148695	
15	Cost 'B' (13+14)	183578	
16	Imputed value of household labour	4785	
17	Cost 'C' (15+16)	188363	

Above table reveals that 56% of the total cost 'A' constitutes to hired human labour cost in tapioca cultivation farm yard manure and chemical fertilizers also shares to 22% of the total cost 'A'. Interest on working capital is calculated as Rs. 3006/-, which is accounted as 9% of the cost 'A'. Thus the per hectare cost cultivation of tapioca during 2004-05 is accounted as Rs 33383/- when the cost 'A' component considered.

The following table shows the percentage distribution of hired human labours engaged in tapioca cultivation.

Table 28: Percentage distribution of hired human labour hours

Sex	Holding Size Class			
	Small	Medium	Large	All Sizes

Male	59.03	69.14	58.13	53.23
Female	6.86	9.79	14.97	11.58
Total	65.89	78.93	73.10	64.81

B. Out put

In tapioca cultivation value output per hectare is seen as Rs. 53650/-

2.5 Banana

During 2004-05 for the cost of cultivation study on banana 190 holdings were selected. The details of these holdings in each, size class is given in the following table.

Table 29: Area and Number of holdings selected

Size class	No of selected holdings	Area under the crop in the sample (ha)	Percentage to Total area	Area per holding (ha)
Small	117	7.42	25.58	0.70
Medium	63	13.54	46.66	0.22
Large	10	8.05	27.76	0.67
All Size	190	29.01	100.00	0.16

From the above table, it can be seen that the selected holdings had a total operational area of 29.01 hectare. The average size of a holding is 0.16 hectare.

Table: 30 Cost of Cultivation per hectare of Banana during 2004-05

Sl. No	Components of different cost concepts	Cost per hectare (Rs)	% distribution of cost 'A'
1	Hired human labour	28647	39.82
2	Animal labour	5	
3	Machine labour	949	1.26
4	Seed / seedlings	10935	15.58
5	Farmyard manure and chemical fertilizers	25367	33.82
6	Plant protection	1118	0.02
7	Land tax and irrigation cess	970	0.02
8	Repair and maintenance charges	327	0.44
9	Interest on working capital	6702	8.94
10	Other expenses	---	---
11	Total cost 'A' (1-10)	75021	100.00
12	Interest on fixed capital	1424	
13	Cost 'B1' (11+12)	76445	
14	Interest on land value	139323	
15	Cost 'B' (13+14)	215768	
16	Imputed value of household labour	13046	
17	Cost 'C' (15+16)	228814	

Details of human labour hours engaged in banana cultivation is as follows:

Table: 31 Percentage distributions of hired human labour hours to the total human labour

hour

Sex	Holding Size Class			
	Small	Medium	Large	All Sizes
Male	63.45	61.74	52.32	59.66
Female	6.08	10.72	30.77	14.89
Total	69.53	72.46	83.09	74.55

B. Value of out put

During 2004-05 per hectare value output received from banana cultivation is worked out as Rs. 117529/-

2.6 Pepper

During 2004-05 for the cost of cultivation study on pepper, 191 holdings were selected. Details are given below:

Table 32 - Area and number of holdings selected during 2004-05

Holding size class	No of selected holdings	Area under the crop in the sample (ha)	Percentage	Are per holding (ha)
Small	1.37	11.09	28.53	0.06
Medium	41	17.42	44.81	0.42
Large	7	10.36	26.66	1.42
Total	185	38.87	100.00	0.21

Above table reveals that for the cost study large size holdings are very few during 2004-05. Relatively more number of holdings belongs to small farmers.

A. Cost of cultivation

As in the case of other crops cost of cultivation of pepper is also calculated at different cost concepts such as Cost 'A', Cost 'B1', Cost 'B', Cost 'C'. During 2004-05 for cultivating one hectare of pepper when considering the cash and other kind of expenses an average farmer expended Rs. 16490/-. Hired human labour cost accounted as the major cost component (66%) among various cost inputs. It showed an increasing trend when compared to the previous year. Details are presented below:

Table 33 - Cost of cultivation per hectare of pepper during 2004-05

SI No	Component of different cost concept	Cost per hectare (in Rs)	% Distribution of cost 'A'
1	Hired human labour	10859	65.87
2	Animal labour	---	---
3	Machine labour	55	0.33
4	Seed / seedlings	65	0.39
5	Farmyard manure and chemical fertilizers	3273	19.85
6	Plant protection	35	0.21
7	Land tax and irrigation charges	68	0.41
8	Repair and maintenance charges	253	1.53
9	Interest on working capital	1470	8.91

SI No	Component of different cost concept	Cost per hectare (in Rs)	% Distribution of cost 'A'
10	Other expenses	412	2.50
11	Total cost 'A' (1-10)	16490	100.00
12	Interest on fixed capital	1850	
13	Cost 'B1' (11+12)	18340	
14	Interest on land value	215156	
15	Cost 'B' (13+14)	233496	
16	Imputed value of household labour	2098	
17	Cost 'C' (15+16)	235594	

Work participation rate of pepper cultivation shows that male outnumbered females. The survey enquires about the human labour hours engaged in pepper cultivation revealed that the percentage of hired human labour hours to total human labour hours accounts to 74% out of it 66% shared to male participation. Details are given below.

Table 34 – Percentage of hired human labour hours engaged in pepper cultivation

Sex	Holding size class			
	Small	Medium	Large	All Sizes
Male	61.02	66.80	69.88	65.56
Female	5.73	8.82	13.11	8.86
Total	66.75	75.62	82.99	74.42

B. Value of out put

During 2004-05 the value output received from one hectare is found to be Rs. 26042/-

2.7 Ginger

Details of the number of holdings under Ginger Cultivation during 2004-05 are given below.

Table 35 - Area and number of holdings under Ginger cultivation 2004-05

Holding size class	No of selected holdings	Area under the crop in the sample (ha)	Percentage to total Area	Average area per holding (ha)
Small	138	5.64	29.63	0.04
Medium	38	5.60	28.91	0.14
Large	9	7.80	41.46	0.85
All sizes	185	19.04	100.00	0.10

Above table reveals that the total study area under ginger cultivation covered to 19.04 hectare. The average size per holding was 0.10 hectare.

A. Cost of cultivation

The following table shows the various cost component of ginger cultivation.

Table 36 - Cost of cultivation per hectare of Ginger during the year 2004-05

Sl. No	Component of different cost concept	Cost per hectare (in Rs)	% Distribution of cost
1	Hired human labour	18954	32.44
2	Animal labour	--	--
3	Machine labour	233	0.39
4	Seed / seedlings	13858	23.73
5	Farmyard manure and chemical fertilizers	19375	33.15
6	Plant protection	452	0.78
7	Land tax and irrigation cess	64	0.10
8	Repair and maintenance charges of implements, machinery and building	211	0.36
9	Interest on working capital	5287	9.04
10	Other expenses	--	--
11	Total cost 'A' (1-10)	58434	100.00
12	Interest on fixed capital	1194	
13	Cost 'B1' (11+12)	59628	
14	Interest on land value	113385	
15	Cost 'B' (13+14)	173013	
16	Imputed value of household labour	1607	
17	Cost 'C' (15+16)	174620	

In Ginger cultivation the major cost components are hired human labour (32%) seed/seedlings (24%) and farmyard manure and chemical fertilizers (33%) respectively to total cost 'A' . Details of labour hours engaged in ginger cultivation is given below.

Table 37 – Percentage of hired human labour hours to total human labour hours

Sex	Holding size class			
	Small	Medium	Large	All Sizes
Male	51.92	68.34	36.83	45.05
Female	26.52	24.77	17.34	28.54
Total	78.44	93.11	54.17	73.59

B. Out put

The per hectare value of output received from Ginger cultivation is seen as Rs. 61356/- during 2004-05.

2.8 Turmeric

During 2004-05 for the study on cost of cultivation turmeric 135 holdings were selected. Details of these holdings are given below:

Table 38 – Area and Number of holdings selected for Turmeric cultivation 2004-05

olding size class	No of selected holdings	Area under the crop in the sample (ha)	Percentage to total area	Average area per holding (ha)
Small	113	10.71	54.48	0.09
Medium	20	6.31	32.09	0.32

Large	2	2.64	13.43	1.32
All size	135	19.66	100.00	0.15

The total operational area of the selected holding was 19.66 hectares and the average size per holding accounts to 0.15 hectares.

A. Cost of cultivation

The estimated cost of cultivation of turmeric under different cost concepts are given below:

Table 39 – Cost of cultivation per hectare of Turmeric during the year 2004-05

Sl. No	Component of different cost concept	Cost per hectare (in Rs)	Percentage distribution of Cost 'A'
1.	Hired human labour	17708	48.95
2.	Animal labour	--	--
3.	Machine labour	151	0.42
4.	Seed/Seedlings	9159	25.32
5.	Farmyard manure and Chemical fertilizers	5254	14.53
6.	Plant Protection	24	0.06
7.	Land tax and Irrigation cess	95	0.26
8.	Repair and maintenance charges of implements, machinery and buildings	106	0.29
9.	Interest on working capital	3270	9.04
10.	Other expenses	411	1.13
11.	Cost A (1-10)	36178	100.00
12.	Interest on fixed capital	1060	
13.	Cost 'B1' (11+12)	37238	
14.	Interest on land value	135602	
15.	Cost 'B' (13+14)	172840	
16.	Imputed value of household labour	2353	
17.	Cost C (15+16)	175193	

The turmeric cultivation the three major inputs are hired human labour (49%) seed/seedlings (25%), and farmyard manure and chemical fertilizers (15%).

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

Table 40 – Percentage distribution of Hired human labour hours to the total human hours

Sex	Holding size class			
	Small	Medium	Large	All Sizes
Male	53.49	39.80	56.87	51.95
Female	13.51	37.11	40.44	35.35
Total	67.00	77.11	97.31	87.30

B. Output

The per hectare value of output received from turmeric cultivation is worked out to Rs. 42242/- during the year 2004-05.



Chapter III

Summary of findings

The data used in this report are collected through the cost of cultivation survey conducted during 2004-05 in the state. The crops covered in this study are Paddy (Autumn, Winter and Summer) Coconut, Tapioca, Banana, Pepper, Arecanut, Ginger and Turmeric.

1. Autumn Paddy

In the Autumn Paddy cultivation during 04-05 the cultivators benefited 33% of total cost as far as cost 'A' concerned. But in the case of cost B and C, the cultivators faced loss to the tune of 40 and 41 percentages respectively.

2. Winter Paddy

In winter paddy cultivation while taking the cost concept 'A' the corresponding benefit is accounted as 22% In the case of cost 'B' and cost 'C', the cultivators faced a loss to the tune of 43 and 44 per cent respectively.

3. Summer Paddy

Summer Paddy cultivators benefited only 12% of their total cost, while taking the cost concept 'A'. Cost 'B' and cost 'C' showed a negative trend in summer paddy cultivation. It accounted as 32 and 34 percent respectively.

4. Coconut

Coconut, an oilseed of the state is a source of livelihood of farming community. During 2004-05 coconut cultivators witnessed profit 78% of their total cost when considered the cost concept 'A' while taking into consideration of the cost factor such as 'B' and 'C' coconut cultivators also faced a loss (87% each)

5. Arecanut

The survey results of the selected arecanut holdings reveals that the arecanut cultivators benefited 52% of their total cost in accordance with the total cost concept 'A', Cost 'B' and Cost 'C' concepts accounted 69 percent and 70% loss.

6. Pepper

While considering the cash and other kind expenses i.e. Cost 'A', during 2004-05 pepper cultivators enjoyed a benefit of 58% of the cost. Pepper cultivators faced a loss of 89% each, when cost concepts 'B' and 'C' taking into account.

7. Tapioca

During the year under review Tapioca cultivators witnessed a profit of 61% of the total cost 'A'. In the case of Cost 'B' and 'C' the loss is accounted as 71% and 72% respectively.

8. Banana

Banana cultivators benefited 57% of the total cost 'A'. When we analyse the cost factor 'B' and 'C' these cultivators witnessed a loss of 46% and 49% respectively.

9. Ginger

The survey results of the selected holdings of the Ginger cultivators reveals that during 2004-05 these cultivators received profit to the tune of 5% of the total cost 'A'. The range of loss occurred to 65% each in cost 'B' and 'C' factor considered.

10. Turmeric

Turmeric cultivator's benefit accounted as 17% of the total cost 'A' during 2004-05. Turmeric cultivation also witnessed a loss of 76 percent each in cost 'B' and 'C' factor included.



Appendix – 1

Cost of Cultivation of Autumn Paddy during the year 2004-05

(Per Hectare in Rs.)

Sl No	Components	Holding size Class			
		Small Cost/Hectors	Medium Cost/Hectors	Large Cost/Hectors	All Size
1	Hired human labour	11401	9648	8372	9542
2	Animal labour	771	415	114	379
3	Machine labour	2469	2566	1493	2161
4	Seed / seedlings	1200	1079	1140	1125
5	Farmyard manure and chemical fertilizers	3065	2875	2839	2900
6	Plant protection	314	262	471	347
7	Land tax and irrigation cess	54	50	75	60
8	Repair and maintenance charges of implements, machinery and building	182	419	382	330
9	Interest on working capital	993	876	818	878
10	Other expenses	641	668	1925	1113
11	Total cost 'A' (1-10)	21090	18858	17629	18835
12	Interest on fixed capital	836	1354	63	1024
13	Cost 'B1' (11+12)	21926	20212	18292	19859
14	Interest on land value	34388	22734	13147	21636
15	Cost 'B' (13+14)	56314	42946	31439	41495
16	Imputed value of household labour	1955	1195	794	1204
17	Cost 'C' (15+16)	58269	44141	32233	42699

Appendix – 2

Cost of Cultivation of Winter Paddy during the year 2004-05

(Per Hectare in Rs.)

Sl No	Components	Holding size Class			
		Small	Medium	Large	All Size
1	Hired human labour	11964	10160	8579	9663
2	Animal labour	609	576	157	384
3	Machine labour	2501	2454	2094	2292
4	Seed / seedlings	1233	1159	1307	1239
5	Farmyard manure and chemical fertilizers	3139	2693	2427	2629
6	Plant protection	367	414	741	561
7	Land tax and irrigation Cess	83	100	182	136
8	Repair and maintenance charges of implements, machinery and building	216	329	330	302
9	Interest on working capital	1037	932	816	892
10	Other expenses	919	1187	1019	1072
11	Total cost 'A' (1-10)	22068	20004	17652	19170
12	Interest on fixed capital	908	703	629	729
13	Cost 'B1' (11+12)	22976	20707	18281	19899
14	Interest on land value	30266	23295	16253	20935
15	Cost 'B' (13+14)	53242	44002	34534	40834
16	Imputed value of household labour	2010	1269	453	987
17	Cost 'C' (15+16)	55252	45271	34987	41821

Appendix – 3

Cost of Cultivation of Summer Paddy during the year 2004-05

(Per Hectare in Rs.)

Sl No	Components	Holding size Class			
		Small	Medium	Large	All Size
1	Hired human labour	9600	9860	10187	9976
2	Animal labour	626	500	280	414
3	Machine labour	2649	2795	2862	2803
4	Seed / seedlings	1139	1104	1045	1081
5	Farmyard manure and chemical fertilizers	3486	2932	2508	2618
6	Plant protection	432	556	942	724
7	Land tax and irrigation Cess	167	301	450	351
8	Repair and maintenance charges of implements, machinery and building	284	600	333	410
9	Interest on working capital	950	993	1161	1068
10	Other expenses	1067	2108	5387	3739
11	Total cost 'A' (1-10)	20400	21749	25155	23184
12	Interest on fixed capital	1236	852	89	723
13	Cost 'B1' (11+12)	21636	22601	25244	23907

14	Interest on land value	22135	18406	8503	14183
15	Cost 'B' (13+14)	43771	41007	33747	38090
16	Imputed value of household labour	3654	1410	478	1334
17	Cost 'C' (15+16)	47425	42417	34225	39424

Appendix – 4

Cost of Cultivation of Coconut during the year 2004-05

(Per Hectare in Rs.)

Sl No	Components	Holding size Class			
		Small	Medium	Large	All Size
1	Hired human labour	9721	8108	10797	10980
2	Animal labour	33	3	59	31
3	Machine labour	200	247	693	444
4	Seed / seedlings	158	177	82	132
5	Farmyard manure and chemical fertilizers	5649	4783	6535	5659
6	Plant protection	74	45	38	44
7	Land tax and irrigation Cess	56	81	81	80
8	Repair and maintenance charges of implements, machinery and building	249	338	402	346
9	Interest on working capital	1584	1336	2020	1729
10	Other expenses	831	680	1384	1014
11	Total cost 'A' (1-10)	18555	15798	22091	20459
12	Interest on fixed capital	1449	1472	1244	1513
13	Cost 'B1' (11+12)	20004	17540	23335	21972
14	Interest on land value	197639	170829	183363	260648
15	Cost 'B' (13+14)	217643	188369	206698	282620
16	Imputed value of household labour	3501	1701	1205	1647
17	Cost 'C' (15+16)	221144	190070	207903	284267

Appendix – 5

Cost of Cultivation of Arecanut during the year 2004-05

(Per Hectare in Rs.)

Sl No	Components	Holding size Class			
		Small	Medium	Large	All Size
1	Hired human labour	12709	16156	16225	15265
2	Animal labour	--	--	--	--
3	Machine labour	801	1546	1064	1152
4	Seed / seedlings	67	20	--	24
5	Farmyard manure and chemical fertilizers	6292	10628	9281	8926
6	Plant protection	134	477	47	211

7	Land tax and irrigation Cess	80	135	156	129
8	Repair and maintenance charges of implements, machinery and building	166	1302	185	500
9	Interest on working capital	2120	2974	2780	2661
10	Other expenses	952	915	1186	1035
11	Total cost 'A' (1-10)	23321	34153	30924	29903
12	Interest on fixed capital	1985	1588	1653	1734
13	Cost 'B1' (11+12)	25306	35741	32577	31637
14	Interest on land value	156456	154896	152648	114765
15	Cost 'B' (13+14)	181762	190637	185225	146402
16	Imputed value of household labour	4605	5701	2273	4019
17	Cost 'C' (15+16)	186367	196338	187498	150421

Appendix – 6

Cost of Cultivation of Tapioca during the year 2004-05

(Per Hectare in Rs.)

Sl No	Components	Holding size Class			
		Small	Medium	Large	All Size
1	Hired human labour	18026	17947	20284	18696
2	Animal labour	21	18	0	13
3	Machine labour	71	315	597	354
4	Seed / seedlings	1206	953	1080	1044
5	Farmyard manure and chemical fertilizers	7495	7557	7146	7416
6	Plant protection	87	127	91	107
7	Land tax and irrigation Cess	84	80	67	77
8	Repair and maintenance charges of implements, machinery and building	307	153	99	215
9	Interest on working capital	2848	2891	3293	3008
10	Other expenses	1569	1997	3731	2453
11	Total cost 'A' (1-10)	31714	32038	36388	33383
12	Interest on fixed capital	1987	1091	1152	1500
13	Cost 'B1' (11+12)	33701	33129	37540	34883
14	Interest on land value	190523	139922	135095	148695
15	Cost 'B' (13+14)	224224	173051	172635	183578
16	Imputed value of household labour	8576	4220	3197	4785
17	Cost 'C' (15+16)	232800	177271	175832	188363

Appendix – 7

Cost of Cultivation of Banana during the year 2004-05

(Per Hectare in Rs.)

Sl	Components	Holding size Class
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No		Small	Medium	Large	All Size
1	Hired human labour	27078	28273	37121	28647
2	Animal labour	0	11	0	5
3	Machine labour	1289	895	728	949
4	Seed / Seedlings	10039	12036	9909	10935
5	Farmyard manure and chemical fertilizers	25667	27753	21080	25367
6	Plant protection	1115	1183	1010	1118
7	Land tax and irrigation Cess	271	561	2304	970
8	Repair and maintenance charges of implements, machinery and building	168	570	153	327
9	Interest on working capital	6519	7015	6985	6702
10	Other expenses (Including soil condition)	-	-	-	-
11	Total cost 'A' (1-10)	72146	78297	79288	75021
12	Interest on fixed capital	1182	1642	1762	1424
13	Cost 'B1' (11+12)	73328	79939	81070	76445
14	Interest on land value	116871	117725	111380	139323
15	Cost 'B' (13+14)	190199	197664	192450	215768
16	Imputed value of household labour	18521	13533	7180	13046
17	Cost 'C' (15+16)	208720	211197	199630	228814

Appendix – 8

Cost of Cultivation of Pepper during the year 2004-05

(Per Hectare in Rs.)

Sl No	Components	Holding size Class			
		Small	Medium	Large	All Size
1	Hired human labour	13.804	14279	6491	10859
2	Animal labour	--	--	--	--
3	Machine labour	140	34	--	55
4	Seed / seedlings	59	110	--	65
5	Farmyard manure and chemical fertilizers	3085	2682	4467	3273
6	Plant protection	23	41	39	35
7	Land tax and irrigation Cess	51	70	84	68
8	Repair and maintenance charges of implements, machinery and building	105	375	280	253
9	Interest on working capital	1757	1744	1157	1470
10	Other expenses (Including soil condition)	455	290	572	412
11	Total cost 'A' (1 to 10)	19479	19625	13090	16490
12	Interest on fixed capital	1814	1828	2275	1850

13	Cost 'B1' (11+12)	21293	21453	15365	18340
14	Interest on land value	317843	177004	169369	215156
15	Cost 'B' (13+14)	339136	198457	184734	233496
16	Imputed value of household labour	3665	1779	958	2098
17	Cost 'C' (15+16)	342801	200236	185692	235594

Appendix – 9

Cost of Cultivation of Ginger during the year 2004-05

(Per Hectare in Rs)

Sl No	Components	Holding size Class			
		Small	Medium	Large	All Size
1	Hired human labour	18665	14323	23875	18954
2	Animal labour	--	--	--	--
3	Machine labour	229	109	323	233
4	Seed / seedlings	16638	14860	13078	13858
5	Farmyard manure and chemical fertilizers	18221	18362	18543	19375
6	Plant protection	871	720	108	452
7	Land tax and irrigation cess	84	74	41	64
8	Repair and maintenance charges of implements, machinery and building	303	78	166	211
9	Interest on working capital	5442	4837	5593	5287
10	Other expenses	--	--	--	--
11	Total cost 'A' (1-10)	60453	53363	61727	58434
12	Interest on fixed capital	1458	819	1066	1194
13	Cost 'B1' (11+12)	61911	54182	62793	59628
14	Interest on land value	174959	161974	135481	113385
15	Cost 'B' (13+14)	236870	216156	198274	173013
16	Imputed value of household labour	1897	1552	1636	1607
17	Cost 'C' (15+16)	238767	217708	199910	174620

Appendix – 10

Cost of Cultivation of Turmeric during the year 2004-05

(Per Hectare in Rs.)

Sl No	Components	Holding size Class			
		Small	Medium	Large	All Size
1	Hired human labour	16012	17996	19115	17708
2	Animal labour	--	--	--	--
3	Machine labour	---	--	1059	151
4	Seed / seedlings	8227	9013	10237	9159
5	Farmyard manure and chemical fertilizers	8602	8490	9847	5254

6	Plant protection	128	170	180	24
7	Land tax and irrigation Cess	90	113	71	95
8	Repair and maintenance charges of implements, machinery and building	132	37	56	106
9	Interest on working capital	3341	3599	4092	3270
10	Other expenses	441	323	484	411
11	Total cost 'A' (1-10)	36973	39741	45141	36178
12	Interest on fixed capital	1228	757	260	1060
13	Cost 'B1' (11+12)	38201	40498	45401	37238
14	Interest on land value	152894	122758	98839	135602
15	Cost 'B' (13+14)	191095	163256	144240	172840
16	Imputed value of household labour	2342	3182	547	2353
17	Cost 'C' (15+16)	193437	166438	144787	175193

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