

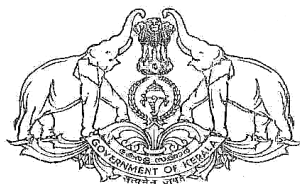
**Government of Kerala**



***Report On  
Cost of Cultivation of  
Important Crops in Kerala  
2005-06***

---

**Department of Economics & Statistics  
Thiruvananthapuram  
2007**



**Government of Kerala**

***Report On  
Cost of Cultivation of  
Important Crops in Kerala  
2005-06***

---

**Department of Economics & Statistics  
Thiruvananthapuram  
2007**

## ***PREFACE***

The growth trend in the agricultural sector has not been consistent in Kerala. Food crops in general have shown a decreasing trend in area and production. The contribution of agriculture to State Income has been on the decline. For formulating proper price policies and for achieving economic efficiency of the crop production sector, studies on Cost of Cultivation of Important Crops in Kerala is essential. With this end in view, this Department conducts annual study on Cost of Cultivation of Important Crops in Kerala.

This report is based on the field study on Cost of Cultivation of Important Crops conducted during the year 2005-06. The crops covered during this year are Paddy (3 seasons), Coconut, Arecanut, Pepper, Banana, Tapioca, Ginger and Turmeric.

The tabulation and consolidation of data were done in the Cost of Cultivation section of the DES using Computer Software developed by Sri. S. Anirudhan, Research Officer and the DTP work was done by Sri. S. Saseendran, U.D. Typist in Computer Division. The report was prepared by Dr. T. Bhavana, Deputy Director under the guidance of Sri. S. Rajendran, Additional Director. Suggestions for improvement are solicited.

**M. R. Balakrishnan**  
**Director**

Thiruvananthapuram,  
13/04/2007

## ***CONTENTS***

			Page No.
Chapter - 1	1	General	1
Chapter – 2	2	Results of the Survey	5
	2.1	Paddy	
		i) Autumn Paddy	5
		ii) Winter Paddy	7
		iii) Summer Paddy	9
	2.2	Coconut	11
	2.3	Arecanut	13
	2.4	Tapioca	14
	2.5	Banana	16
	2.6	Pepper	17
	2.7	Ginger	18
	2.8	Turmeric	19
Chapter	3	Summary of Findings	21
Appendix	1-10	Detailed Tables	23

## 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 26th round (year) of survey conducted during 2005-06.

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 1/7/2005 to 30/6/2006 (Agricultural year 2005-2006).

#### 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 who are likely to be engaged in paddy cultivation during the current year are selected at random for 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 of other crops 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 the 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	Areca nut		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	≥ 2 hectare	≥ 0.80 hectare

Note:- < Less than ≥ - 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 Diary
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 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 in 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 (paid 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.



## CHAPTER 2

### RESULTS OF THE SURVEY

#### i) Autumn Paddy

For the study on cost of cultivation of Autumn Paddy during 2005-06 an area of 232.24 hectares, comprising 325 number of holdings were selected. Details are given below.

**Table 1 - Area under autumn paddy during 2005-06**

Holding size class	No of selected holdings	Area under the crop in the sample (ha)	Percentage	Average Area per holding (ha)
Small	168	42.01	18.09	0.25
Medium	131	101.41	43.67	0.77
Large	26	88.82	38.24	3.42
<b>Total</b>	<b>325</b>	<b>232.24</b>	<b>100.00</b>	<b>0.71</b>

From the above table it can be seen that average area per holding was 0.71 hectare

#### 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. For the autumn paddy cultivation about 52 percent of cost constitutes to hired human labour when Cost 'A' is considered. Machine labour cost shares 12% and farmyard manure and chemical fertilizers accounts to 16% of the total Cost 'A'.

**Table 2- Cost of Cultivation per hectare of paddy (autumn) during 2005-06**

Sl No	Component of different cost concept	Cost per hectare (in Rs)	% Distribution of cost
1	Hired human labour	9782	51.56
2	Animal labour	353	1.86
3	Machine labour	2185	11.52
4	Seed / seedlings	974	5.13
5	Farmyard manure and chemical fertilizers	2946	15.53
6	Plant protection	324	1.71
7	Land tax and irrigation cess	73	0.38
8	Repair and maintenance charges	251	1.32
9	Interest on working capital	888	4.68
10	Other expenses	1195	6.3
11	Total Cost 'A' (1-10)	18971	100
12	Interest on fixed capital	743	
13	Cost 'B1' (11+12)	19714	
14	Interest on land value	20605	
15	Cost 'B' (13+14)	40319	
16	Imputed value of household labour	1199	
17	Cost 'C' (15+16)	41518	

The following table reveals 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	38.79	11.02	16.54	17.23
Female	49.91	84.41	74.54	75.95
<b>Total</b>	<b>88.7</b>	<b>95.43</b>	<b>91.08</b>	<b>93.18</b>

In autumn paddy cultivation 76% of the total labour hours shares to female participation

#### Cost of production of paddy during 2004-2005 and 2005-2006

**Table: 4 Cost of production of Autumn paddy during 2004-05 & 2005-06**

Concept of cost	Year	Holding size class			
		Small	Medium	Large	All Sizes
Cost 'A'	2004-05	21090	18858	17629	18835
	2005-06	21075	19106	17771	18971
Cost 'B'	2004-05	56314	42946	31439	41495
	2005-06	50191	44487	30727	40319
Cost 'C'	2004-05	58269	44141	32233	42699
	2005-06	52100	45552	31742	41518

#### Cost of Production of paddy per quintal

Cost of production of paddy per quintal is estimated by dividing the cost of cultivation per hectare (after deducting the value of by-product per hectare from the cost of cultivation per hectare) by the quantity of paddy produced per hectare. The survey results show that during 2005-06 for producing one quintal of paddy Rs.545/- has been expended by the farmer when Cost 'A' is considered. Details are given below:

**Table: 5 Per Quintal Cost of Production of Autumn paddy during 2004-05 & 2005-06**

Concept of cost	Year	Holding size class			
		Small	Medium	Large	All Sizes
Cost 'A'	2004-05	509	471	455	469
	2005-06	540	498	477	545
Cost 'B'	2004-05	1372	1234	1152	1107
	2005-06	1498	1311	855	1207
Cost 'C'	2004-05	1449	1390	1278	1497
	2005-06	1561	1345	884	1244

#### B. Output

The value of product and by-product of Autumn Paddy cultivation for the year 2005-06 is given below.

**Table: 6 Value of product and by-product per hectare of Autumn paddy during 2005-06**

Product/ By product	Holding size class			
	Small	Medium	Large	All size
Paddy	19582	19830	23186	21068
Straw	4654	3550	1414	2933
<b>Total</b>	<b>24236</b>	<b>23380</b>	<b>24600</b>	<b>24001</b>

**ii) Winter paddy**

During 2005-06 Cost of cultivation study on winter paddy was conducted in 380 holdings. Details of these holdings are given below:

**Table 7 – Area under winter paddy during 2005-06**

Holding size class	No of selected holdings	Area under the crop in the sample (ha)	Percentage	Area per holding (ha)
Small	197	47.70	19.17	0.24
Medium	154	111.79	44.94	0.73
Large	29	89.29	35.89	3.08
<b>Total</b>	<b>380</b>	<b>248.78</b>	<b>100.00</b>	<b>0.65</b>

For the study on winter paddy cultivation during 2005-06, an area of 248.78 hectare was included. The average size of holding was 0.65 hectare.

**A. Cost of Cultivation**

As usual in winter paddy cultivation also the major share of the cost component was hired human labour. It constitutes 52 per cent of the total cost 'A'. The application of farmyard manure and chemical fertilizers was another major item. It shows to 15% of the total cost 'A'. Interest on working capital accounts to 5% of the total cost 'A'. By considering the various cost component of winter paddy cultivation it can be seen that per hectare cost calculated as Rs.19170/- when Cost 'A' considered.

**Table 8 – Cost of cultivation per hectare of winter paddy during the year 2005-06**

Sl.No	Component of different cost concept	Cost per hectare (in Rs)	Percentage distribution of Cost 'A'
1.	Hired human labour	9967	52.2
2.	Animal labour	407	2.13
3.	Machine labour	2185	11.44
4.	Seed/ Seedlings	1087	5.69
5.	Farmyard manure and Chemical fertilizers	2823	14.78
6.	Plant Protection	239	1.25
7.	Land tax and Irrigation cess	72	0.38
8.	Repair and maintenance charges of implements, machinery and buildings	340	1.78
9.	Interest on working capital	890	4.66
10.	Other expenses	1084	5.68
11.	Cost A (1-10)	19094	100
12.	Interest on fixed capital	902	
13.	Cost 'B1' (11+12)	19996	
14.	Interest on land value	24937	
15.	Cost 'B' (13+14)	44933	
16.	Imputed value of household labour	1288	
17.	Cost C (15+16)	46221	

Sex wise work participation in winter paddy cultivation reveals that 69% of work shared by female whereas 21% shared by male workers.

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

Sex	Holding size class			
	Small	Medium	Large	All Sizes
Male	26.05	21.23	16.35	20.7
Female	57.15	68.97	76.26	68.71
<b>Total</b>	<b>83.2</b>	<b>90.2</b>	<b>92.61</b>	<b>89.41</b>

### Cost 'B' and Cost 'C'

Cost 'B' is estimated by adding the interest on fixed capital to Cost 'A'. Accordingly cost 'B' is Rs. 19996/- during 2005-06. In cost calculation value of household labour is also accounted. Per hectare value of this component is Rs.1288/-. As such per hectare cost of cultivation of winter paddy is estimated as Rs.46221/- during 2005-06. Per hectare cost of cultivation of winter paddy cultivation for 2004-05 and 2005-06 is presented below for comparison.

**Table: 10 Cost of Cultivation per hectare of winter paddy during 2004-05 and 2005-06**

Concept of cost	Year	Holding Size class			
		Small	Medium	Large	All size
Cost 'A'	<b>2004-05</b>	22068	20006	17652	19170
	2005-06	22447	18806	17912	19094
Cost 'B'	<b>2004-05</b>	53242	44002	34534	40834
	2005-06	59679	43767	38772	44933
Cost 'C'	<b>2004-05</b>	55252	45271	34987	41821
	2005-06	62096	44984	39544	46221

### Cost of production of winter paddy

**Table: 11 Per quintal Cost of production of winter paddy during 2005-06**

Concept of cost	Holding Size Class			
	Small	Medium	Large	All Sizes
Cost 'A'	513	516	534	581
Cost 'B'	1698	1411	1266	1479
Cost 'C'	1775	1455	1293	1524

**Table: 12 Per Quintal Cost of production of winter paddy during 2004-05 and 2005-06**

Concept of cost	Year	Holding size class			
		Small	Medium	Large	All Sizes
Cost 'A'	2004-05	485	462	534	509
	2005-06	513	516	534	581
Cost 'B'	2004-05	1547	1431	1123	1178
	2005-06	1698	1411	1266	1479
Cost 'C'	2004-05	1809	1545	1239	1437
	2005-06	1775	1455	1293	1524

**B. Output****Table: - Value of output (Rs/ha)**

Product/By-product	Holding size class			
	Small	Medium	Large	All Sizes
Paddy	21458	20414	24443	22060
Straw	6331	4411	2698	4164
<b>Total</b>	<b>27789</b>	<b>24825</b>	<b>27141</b>	<b>26224</b>

**(iii) Summer Paddy (Punja)**

For the cost of cultivation study on summer paddy during 2005-06 the total number of holdings selected was 324. The details of these holdings are presented below:

**Table 13 : Area under Summer Paddy during 2005-06**

Holding size class	No of selected holdings	Area under the crop in the sample (ha)	Percentage	Area per holding (ha)
Small	166	34.43	16.76	0.21
Medium	128	84.88	41.30	0.66
Large	30	86.20	41.94	2.87
<b>All Size</b>	<b>324</b>	<b>205.51</b>	<b>100.00</b>	<b>0.63</b>

The above table reveals that the total area under cultivation in the selected sample holdings covers to 205.51 hectares and the average size of a holding is 0.63 hectare.

**A. Cost of Cultivation**

During 2005-06 per hectare cost of cultivation of summer paddy is estimated Rs. 20057/- when cost 'A' is considered. Component wise cost details are presented below:

**Table 14: Cost of Cultivation per hectare of paddy (Summer) during 2005-06**

Sl. No	Component of different cost concept	Cost per hectare (in Rs)	% Distribution of cost 'A'
1	Hired human labour	9851	49.12
2	Animal labour	382	1.9
3	Machine labour	2565	12.79
4	Seed / seedlings	1091	5.44
5	Farmyard manure and chemical fertilizers	3134	15.63
6	Plant protection	376	1.87
7	Land tax and irrigation cess	204	1.02
8	Repair and maintenance charges of implements, machinery and building	196	0.98
9	Interest on working capital	936	4.67
10	Other expenses	1322	6.59
11	Total cost 'A' (1-10)	20057	100
12	Interest on fixed capital	723	
13	Cost 'B1' (11+12)	20780	
14	Interest on land value	17818	
15	Cost 'B' (13+14)	38598	
16	Imputed value of household labour	1597	
17	Cost 'C' (15+16)	40195	

In summer paddy cultivation female labour participation accounted as 90% of the total labour hours. Details are given below:

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

Holding size class	Male	Female	Total
Small	21.46	60.93	82.39
Medium	14.13	75.73	89.86
Large	17.18	74.82	92
<b>All Sizes</b>	<b>16.47</b>	<b>72.72</b>	<b>89.19</b>

## B. Output

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

Product/ By-product	Holding Size Class			
	Small	Medium	Large	All Sizes
Paddy	21520	24603	22383	23155
Straw	5416	2960	1374	2706
<b>Total</b>	<b>26936</b>	<b>27563</b>	<b>23757</b>	<b>25861</b>

**Table 17: Cost of production of summer paddy per quintal during 2005-06**

Concept of cost	Holding Size Class			
	Small	Medium	Large	All Sizes
Cost 'A'	582	547	522	536
Cost 'B'	1228	1913	1438	1272
Cost 'C'	1242	1965	1446	1375

**Table 18: Cost of production of summer paddy per quintal during 2004-05 and 2005-06**

Concept of cost	2004-05	2005-06
Cost 'A'	673	536
Cost 'B'	1163	1272
Cost 'C'	1198	1375

Above tables reveal that for producing one quintal of paddy in summer season an amount of Rs.536 is required when cost 'A' is considered. Per hectare value of product paddy is calculated as Rs.23155/- and the value of by-product viz. straw is estimated as Rs.2706/-

## 2.2 Coconut

Coconut is grown in over 93 countries. India's share in world production is 22 percent. Kerala's share in area as well as production of coconut in the country has been declining years after years. Still the State is known as "Kera Nadu" and it provides livelihood to over 3.5 million families in Kerala. As such data regarding the Cost of Cultivation of Coconut is significant. Details of the study conducted during 2005-06 are presented 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	97	14.02	7.24	0.14
Medium	205	76.60	39.53	0.37
Large	78	103.16	53.23	1.32
<b>Total</b>	<b>380</b>	<b>193.78</b>	<b>100.00</b>	<b>0.51</b>

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

Type of trees	No. of trees per ha.	Percentage
Bearing	176	78
Non-bearing	49	22
<b>Total</b>	<b>225</b>	<b>100</b>

The above table reveals that the share of young non-bearing palms is 22 percent where as the bearing share accounted as 78 percent during the period under review.

#### **A. Cost of Cultivation**

The cultivation practices and expenditure patterns of coconut tree is entirely different when compared to paddy. Details are given below.

**Table 20–Cost of Cultivation Per hectare of coconut during the year 2005-06**

Sl. No	Components of different cost concepts	Cost per hectare (Rs)	% distribution of cost 'A'
1	Hired human labour	11069	53.85
2	Animal labour	30	0.15
3	Machine labour	479	2.33
4	Seed / seedlings	26	0.13
5	Farmyard manure and chemical fertilizers	5992	29.15
6	Plant protection	74	0.36
7	Land tax and irrigation cess	86	0.42
8	Repair and maintenance charges	105	0.51
9	Interest on working capital	1851	9.01
10	Other expenses	843	4.1
11	Total cost 'A' (1-10)	20555	100
12	Interest on fixed capital	1458	
13	Cost 'B1' (11+12)	22013	
14	Interest on land value	182207	
15	Cost 'B' (13+14)	204220	
16	Imputed value of household labour	1725	
17	Cost 'C' (15+16)	205945	

The above table reveals that the major two inputs are hired human labour and farmyard manure and chemical fertilizers. Both of these items are accounted as 54% and 29% respectively.

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	55.17	63	68.86	65.42
Female	11.11	17.64	17.19	16.88
<b>Total</b>	<b>66.28</b>	<b>80.64</b>	<b>86.05</b>	<b>82.3</b>

**B. Value of Out put****Table 22: Value of Out put / Hectare**

Out Put	Value (Rs)
Product	40301
By-Product	1445
<b>Total</b>	<b>41746</b>

**2.3 Arecanut**

Arecanut, a traditional crop of the state is also facing certain problems especially in area. Details of the area covered under this study 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	255	15.71	19.05	0.06
Medium	95	33.52	40.65	0.35
Large	30	33.23	40.30	1.11
<b>All size</b>	<b>380</b>	<b>82.46</b>	<b>100.00</b>	<b>0.22</b>

For this study 380 holdings were selected. It had an operational area of 82.46 hectare. The average size per holding was 0.22 hectare.

**A. Cost of Cultivation**

The different cost components of Arecanut cultivation is given below: Per hectare cost incurred as cash and other kind expenses is worked out as Rs.25222/-

**Table 24: Cost of Cultivation per hectare of Arecanut during the year 2005-06**

Sl No	Component of different cost concept	Cost per hectare (in Rs)	% Distribution of cost
1	Hired human labour	12779	50.67
2	Animal labour	--	--
3	Machine labour	801	3.18
4	Seed / seedlings	24	0.1
5	Farmyard manure and chemical fertilizers	7724	30.62
6	Plant protection	91	0.36
7	Land tax and irrigation cess	81	0.32
8	Repair and maintenance charges of implements, machinery and building	390	1.55
9	Interest on working capital	2250	8.92
10	Other expenses	1082	4.29
11	Total cost 'A' (1-10)	25222	100
12	Interest on fixed capital	1934	
13	Cost 'B1' (11+12)	27156	
14	Interest on land value	112564	
15	Cost 'B' (13+14)	139720	
16	Imputed value of household labour	2730	
17	Cost 'C' (15+16)	142450	

The following table illustrates the work participation of arecanut cultivation. It shows that 81 per cent of the total labour hours has been shared by human labour.

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

Sex	Holding size class			
	Small	Medium	Large	All Sizes
Male	57.75	45.68	43.69	46.66
Female	13.13	36.49	39.90	34.41
<b>Total</b>	<b>70.88</b>	<b>82.17</b>	<b>83.59</b>	<b>81.07</b>

## B. Value of Output

During 2005-06 per hectare value of output received from Arecanut cultivation is estimated as Rs.65755/-

## 2.4 Tapioca

During 2005-06 area under the crop in the sample was 54.31 hectare which covers 190 holdings.

**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	112	13.34	24.56	0.12
Medium	67	28.00	51.56	0.42
Large	11	12.97	23.88	1.18
<b>All Size</b>	<b>190</b>	<b>54.31</b>	<b>100.00</b>	<b>0.29</b>

**A. Cost of Cultivation**

During 2005-06 the average size of a selected holding is 0.29 hectare. When Cost 'A' is considered the per hectare cost of cultivation of tapioca is worked out as Rs.25136/-. In this hired labour cost constitutes 54% whereas farmyard manure and chemical fertilizers together share 24% of the Cost 'A'. The per hectare cost of cultivation of seedling is calculated as Rs.828 during 2005-06. Interest on working capital is estimated as Rs.2267/- under tapioca cultivation. Details are presented below:

**Table 27: The Cost of cultivation per hectare of tapioca during the year 2005-06**

Sl. No	Components of different cost concepts	Cost per hectare (Rs)	% distribution of cost 'A'
1	Hired human labour	13476	53.61
2	Animal labour	46	0.18
3	Machine labour	293	1.17
4	Seed / seedlings	828	3.29
5	Farmyard manure and chemical fertilizers	6118	24.34
6	Plant protection	43	0.17
7	Land tax and irrigation cess	63.	0.25
8	Repair and maintenance charges	137	0.55
9	Interest on working capital	2267	9.02
10	Other expenses	1865	7.42
11	Total cost 'A' (1-10)	25136	100
12	Interest on fixed capital	1320	
13	Cost 'B1' (11+12)	26456	
14	Interest on land value	139847	
15	Cost 'B' (13+14)	166303	
16	Imputed value of household labour	3496	
17	Cost 'C' (15+16)	169799	

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

**Table 28: Percentage distribution of hired human labour hours**

Sex	Holding Size Class			
	Small	Medium	Large	All Sizes
Male	60.11	63.90	71.81	65.01
Female	8.82	14.10	16.66	13.33
<b>Total</b>	<b>68.93</b>	<b>78.00</b>	<b>88.47</b>	<b>78.34</b>

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

## B. Out put

During 2005-06 per hectare value of output received from tapioca cultivation is estimated as Rs.49377/-

## 2.5 Banana

During 2005-06 for the cost of cultivation study on banana 190 holdings were selected. Details of these holdings are given below.

**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	121	8.89	26.36	0.07
Medium	60	18.15	53.84	0.30
Large	9	6.68	19.80	0.74
<b>All Size</b>	<b>190</b>	<b>33.72</b>	<b>100.00</b>	<b>0.18</b>

## A. Cost of Cultivation

As in the case of other crops, cost of cultivation of banana is also calculated at different cost, concepts such as cost 'A', Cost 'B1', 'Cost 'B' and Cost 'C'. During 2005-06 per hectare cost of cultivation of banana is estimated as Rs.76080/- when Cost 'A' considered. In this hired human labour cost accounted as 41 per cent where as farmyard manure and chemical fertilizers cost as 32 per cent respectively of the total Cost 'A'. Seed/seedling cost constitutes to 15% of the total cost 'A'. Details of various cost components are given below:

**Table: 30 Cost of Cultivation per hectare of Banana during 2005-06**

Sl. No	Components of different cost concepts	Cost per hectare (Rs)	% distribution of Cost 'A'
1	Hired human labour	31403	41.28
2	Animal labour	22	0.03
3	Machine labour	702	0.92
4	Seed / seedlings	11640	15.30
5	Farmyard manure and chemical fertilizers	24201	31.81
6	Plant protection	1013	1.33
7	Land tax and irrigation cess	64	0.08
8	Repair and maintenance charges	137	0.18
9	Interest on working capital	6898	9.07
10	Other expenses	0	0
11	Total cost 'A' (1-10)	76080	100
12	Interest on fixed capital	1527	
13	Cost 'B1' (11+12)	77607	
14	Interest on land value	139323	
15	Cost 'B' (13+14)	216930	
16	Imputed value of household labour	8842	
17	Cost 'C' (15+16)	225772	

In Banana cultivation male participation rate is higher than that of female. The percentage distribution of these facts are as follows:

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

Sex	Holding Size Class			
	Small	Medium	Large	All Sizes
Male	59.51	67.60	68.73	65.32
Female	5.68	8.81	20.35	10.62
<b>Total</b>	<b>65.19</b>	<b>76.41</b>	<b>89.08</b>	<b>75.94</b>

**B. Value of out put**

During 2005-06 per hectare value of output from banana cultivation is estimated out as Rs. 118229/-

**2.6 Pepper**

The monopoly of the state still continues in area and production of pepper. Details of the holdings selected for the study is given below:

**Table 32 - Area and number of holdings selected during 2005-06**

Holding size class	No of selected holdings	Area under the crop in the sample (ha)	Percentage	Area per holding (ha)
Small	147	8.46	27.51	0.06
Medium	36	11.78	38.28	0.33
Large	7	10.52	34.21	1.50
<b>Total</b>	<b>190</b>	<b>30.76</b>	<b>100.00</b>	<b>0.16</b>

**A. Cost of cultivation**

The cultivation cost incurred for pepper is entirely different when compared to the cost of paddy and other seasonal crops. Labour cost and fertilizer cost are the two major items of expenses for pepper cultivation. Item wise expenses incurred under pepper cultivation is as follows:

**Table 33 - Cost of cultivation per hectare of pepper during 2005-06**

Sl No	Component of different cost concept	Cost per hectare (in Rs)	% Distribution of Cost 'A'
1	Hired human labour	10787	54.28
2	Animal labour	---	---
3	Machine labour	156	0.78
4	Seed / seedlings	29	0.15
5	Farmyard manure and chemical fertilizers	6422	32.31
6	Plant protection	50	0.25
7	Land tax and irrigation cess	92	0.46
8	Repair and maintenance charges	117	0.59
9	Interest on working capital	1788	9

(Table 33 Contd..)

Sl No	Component of different cost concept	Cost per hectare (in Rs)	% Distribution of cost 'A'
10	Other expenses	433	2.18
11	Total cost 'A' (1-10)	19874	100
12	Interest on fixed capital	1640	
13	Cost 'B1' (11+12)	21514	
14	Interest on land value	254934	
15	Cost 'B' (13+14)	276448	
16	Imputed value of household labour	2568	
17	Cost 'C' (15+16)	279016	

The survey results reveal that out of the total human labour hours engaged in pepper cultivation 80% is shared by hired human labour. 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	55.5	74.38	50.88	59.81
Female	11.19	10.06	36.16	20.00
<b>Total</b>	<b>66.69</b>	<b>84.44</b>	<b>87.04</b>	<b>79.81</b>

### B. Value of out put

During 2005-06 it is estimated that Rs. 32995/- has been received as value of output from per hectare pepper cultivation.

## 2.7 Ginger

For the cost of cultivation study during 2005-06, 175 holdings were selected. Details are given below:

**Table 35 - Area and number of holdings under Ginger cultivation 2005-06**

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	134	8.61	25.80	0.06
Medium	36	12.30	36.86	0.34
Large	5	12.46	37.34	2.49
<b>All sizes</b>	<b>175</b>	<b>33.37</b>	<b>100.00</b>	<b>0.19</b>

### A. Cost of cultivation

Among the various inputs of ginger cultivation labour cost, seed/seedling, fertilizer, etc. are the most important. Details of these various inputs are presented below:

**Table 36 - Cost of cultivation per hectare of Ginger during the year 2005-06**

Sl. No	Component of different cost concept	Cost per hectare (in Rs)	% Distribution of cost
1	Hired human labour	20553	33.24
2	Animal labour	0	0
3	Machine labour	591	0.96
4	Seed / seedlings	20275	32.79
5	Farmyard manure and chemical fertilizers	13814	22.34
6	Plant protection	774	1.25
7	Land tax and irrigation cess	67	0.11
8	Repair and maintenance charges of implements, machinery and building	160	0.26
9	Interest on working capital	5601	9.06
10	Other expenses	0	0
11	Total cost 'A' (1-10)	61835	100
12	Interest on fixed capital	1719	
13	Cost 'B1' (11+12)	63554	
14	Interest on land value	113385	
15	Cost 'B' (13+14)	176939	
16	Imputed value of household labour	6561	
17	Cost 'C' (15+16)	183500	

The percentage distribution of hired human labour hours to total human labour hours reveals that work participation of both sexes is more or less the same.

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

Sex	Holding size class			
	Small	Medium	Large	All Sizes
Male	48.82	45.34	26.56	40.47
Female	21.47	41.19	63.61	42.16
Total	70.29	86.53	90.17	82.63

## B. Value of Out put

The per hectare value of output received from Ginger cultivation is seen as Rs76215/- during 2005-06

## 2.8 Turmeric

Details of the holdings selected for the cost of cultivation study during 2005-06 are given below:

**Table 38 – Area and Number of holdings selected for Turmeric cultivation 2005-06**

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	122	6.82	55.47	0.06
Medium	19	5.47	44.53	0.29
Large	--	0.00	0.00	--
<b>All size</b>	<b>141</b>	<b>12.29</b>	<b>100.00</b>	<b>0.09</b>

**A. Cost of cultivation**

The cash and other kind expenses incurred under ginger cultivation is estimated as Rs.38762/- for one hectare. Details of these items are given below:

**Table 39 – Cost of cultivation per hectare of Turmeric during the year 2005-06**

Sl. No	Component of different cost concept	Cost per hectare (in Rs)	Percentage distribution of Cost 'A'
1.	Hired human labour	17116	44.16
2.	Animal labour	12	0.03
3.	Machine labour	483	1.25
4.	Seed/Seedlings	7094	18.3
5.	Farmyard manure and Chemical fertilizers	8842	22.81
6.	Plant Protection	237	0.61
7.	Land tax and Irrigation cess	68	0.18
8.	Repair and maintenance charges of implements, machinery and buildings	116	0.3
9.	Interest on working capital	3507	9.05
10.	Other expenses	1287	3.32
11.	Cost A (1-10)	38762	100
12.	Interest on fixed capital	1269	
13.	Cost 'B1' (11+12)	40031	
14.	Interest on land value	244580	
15.	Cost 'B' (13+14)	284611	
16.	Imputed value of household labour	9014	
17.	Cost C (15+16)	293625	

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

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

Sex	Holding size class			
	Small	Medium	Large	All Sizes
Male	43.31	35.26	--	40.36
Female	23.54	32.13	--	26.69
<b>Total</b>	<b>66.85</b>	<b>67.39</b>	<b>--</b>	<b>67.05</b>

**B. Output**

The per hectare value of output received from turmeric cultivation is estimated as Rs. 57279/- during the year 2005-06.



## Chapter – 3

### Summary of findings

The data furnished in this report were collected through the cost of cultivation survey conducted during 2005-06 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

The survey results reveals that during the Autumn Paddy cultivation the cultivators benefited 27% of the total Cost 'A'. Cost 'A' consists of cash and other kind of expenses. But when we consider the cost concept of 'B' and 'C' the farmers faced loss to the tune of 40 and 42 percentageS respectively. Cost 'B' includes interest on fixed capital, interest on land value, etc. In cost 'C' Imputed value of household labour is included.

#### 2. Winter Paddy

In winter paddy cultivation while taking into account the cost concept 'A' profit is estimated to 37% whereas in the case of cost 'B' and cost 'C', loss of farmers arrived as 42% and 43% respectively.

#### 3. Summer Paddy

Summer Paddy cultivators benefited 29% of their total cost 'A'. Cost 'B' and Cost 'C' showed a negative trend to the tune of 33% and 36% respectively.

#### 4. Coconut

Coconut still remains as a main source of livelihood of the people of the State. During 2005-06 coconut cultivators witnessed a profit of 103% profit of the total Cost 'A'. While taking into account of the cost factor such as 'B' and 'C' they also faced a loss (80% each).

#### 5. Arecanut

Arecanut farmers also availed profit to the tune of 161% of the total Cost 'A'. In accordance with cost concept of 'B' and 'C' it is accounted as a loss of 53% and 54% respectively.

#### 6. Pepper

During 2005-06 the survey results of the selected holdings of the pepper cultivators reveal that they have received a profit of 66% of the Cost 'A'. At the same time they faced a loss of 88% each in the case of cost factor 'B' and 'C'.

**7. Tapioca**

During the year under review Tapioca cultivators witnessed a profit of 96% of the total Cost 'A'. In the case of cost 'B' and Cost 'C' the loss is accounted as 70% and 71% respectively.

**8. Banana**

Banana cultivators benefited 55% of the total cost 'A'. When we analyse the cost factor 'B' and 'C' these cultivators also faced a loss of 45% and 48% respectively.

**9. Ginger**

Ginger cultivator's benefit accounted as 23% of the total cost 'A' during 2005-06. Their loss is estimated as 57% and 58% respectively when we consider cost 'B' and 'C'.

**10. Turmeric**

Field survey results reveal 48% of profit to the turmeric cultivators while considering the cost concept 'A'. The percentage loss to them is accounted as 80% when. Costs 'B' and 'C' are considered.

**Appendix – 1****Cost of Cultivation of Autumn Paddy during the year 2005-06**

(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	11613	9482	9260	9782
2	Animal labour	764	457	40	353
3	Machine labour	2231	2404	1914	2185
4	Seed / seedlings	1095	1009	878	974
5	Farmyard manure and chemical fertilizers	3035	2891	2967	2946
6	Plant protection	273	316	358	324
7	Land tax and irrigation cess	58	81	71	73
8	Repair and maintenance charges of implements, machinery and building	192	397	56	251
9	Interest on working capital	992	887	840	888
10	Other expenses	822	1182	1387	1195
11	Total cost 'A' (1-10)	21075	19106	17771	18971
12	Interest on fixed capital	776	839	505	743
13	Cost 'B1' (11+12)	21851	19945	18276	19714
14	Interest on land value	28340	24542	12451	20605
15	Cost 'B' (13+14)	50191	44487	30727	40319
16	Imputed value of household labour	1909	1065	1015	1199
17	Cost 'C' (15+16)	52100	45552	31742	41518

**Appendix – 2****Cost of Cultivation of Winter Paddy during the year 2005-06**

(Per Hectare in Rs.)

Sl No	Components	Holding size Class			
		Small	Medium	Large	All Size
1	Hired human labour	11684	9810	9245	9967
2	Animal labour	822	487	85	407
3	Machine labour	2714	2137	1962	2185
4	Seed / seedlings	1154	1116	1015	1087
5	Farmyard manure and chemical fertilizers	3386	2843	2497	2823
6	Plant protection	264	231	236	239
7	Land tax and irrigation Cess	63	62	89	72
8	Repair and maintenance charges of implements, machinery and building	262	171	846	340
9	Interest on working capital	1053	884	808	890
10	Other expenses	1045	1065	1129	1084
11	Total Cost 'A' (1-10)	22447	18806	17912	19094
12	Interest on fixed capital	1120	678	1073	902
13	Cost 'B1' (11+12)	23567	19484	18985	19996
14	Interest on land value	36112	24283	19787	24937
15	Cost 'B' (13+14)	59679	43767	38772	44933
16	Imputed value of household labour	2417	1217	772	1288
17	Cost 'C' (15+16)	62096	44984	39544	46221

**Appendix – 3****Cost of Cultivation of Summer Paddy during the year 2005-06**

(Per Hectare in Rs.)

Sl No	Components	Holding size Class			
		Small	Medium	Large	All Size
1	Hired human labour	11696	10099	8871	9851
2	Animal labour	816	393	198	382
3	Machine labour	2422	2652	2536	2565
4	Seed / seedlings	1050	1106	1092	1091
5	Farmyard manure and chemical fertilizers	3765	2838	3174	3134
6	Plant protection	375	458	296	376
7	Land tax and irrigation Cess	143	259	174	204
8	Repair and maintenance charges of implements, machinery and building	318	137	150	196
9	Interest on working capital	1049	946	881	936
10	Other expenses	854	1370	1461	1322
11	Total Cost 'A' (1-10)	22488	20258	18833	20057
12	Interest on fixed capital	1042	713	404	723
13	Cost 'B1' (11+12)	23530	20971	19237	20780
14	Interest on land value	29153	15677	15398	17818
15	Cost 'B' (13+14)	52683	36648	34635	38598
16	Imputed value of household labour	2969	1803	846	1597
17	Cost 'C' (15+16)	55652	38451	35481	40195

**Appendix – 4****Cost of Cultivation of Coconut during the year 2005-06**

(Per Hectare in Rs.)

Sl No	Components	Holding size Class			
		Small	Medium	Large	All Size
1	Hired human labour	11516	10490	11439	11069
2	Animal labour	0	9	49	30
3	Machine labour	121	342	629	479
4	Seed / seedlings	36	32	20	26
5	Farmyard manure and chemical fertilizers	6528	5678	6152	5992
6	Plant protection	208	74	57	74
7	Land tax and irrigation Cess	72	75	96	86
8	Repair and maintenance charges of implements, machinery and building	160	123	63	105
9	Interest on working capital	1918	1752	1916	1851
10	Other expenses	775	900	809	843
11	Total Cost 'A' (1-10)	21334	19475	21230	20555
12	Interest on fixed capital	1365	1431	1522	1458
13	Cost 'B1' (11+12)	22699	20906	22752	22013
14	Interest on land value	286278	185543	165583	182207
15	Cost 'B' (13+14)	308977	206449	188335	204220
16	Imputed value of household labour	3961	1951	1252	1725
17	Cost 'C' (15+16)	312938	208400	189587	205945

**Appendix – 5****Cost of Cultivation of Arecanut during the year 2005-06**

(Per Hectare in Rs.)

Sl No	Components	Holding size Class			
		Small	Medium	Large	All Size
1	Hired human labour	10720	12746	13786	12779
2	Animal labour	--	--	--	--
3	Machine labour	413	781	1005	801
4	Seed / seedlings	--	7	53	24
5	Farmyard manure and chemical fertilizers	5353	8011	8557	7724
6	Plant protection	83	97	99	91
7	Land tax and irrigation Cess	82	100	60	81
8	Repair and maintenance charges of implements, machinery and building	92	73	1685	390
9	Interest on working capital	1718	2296	2457	2250
10	Other expenses	607	1318	1069	1082
11	Total Cost 'A' (1-10)	19068	25429	28771	25222
12	Interest on fixed capital	1598	1815	1765	1934
13	Cost 'B1' (11+12)	20666	27244	30536	27156
14	Interest on land value	124655	121854	118625	112564
15	Cost 'B' (13+14)	145321	149098	149161	139720
16	Imputed value of household labour	3929	2457	2438	2730
17	Cost 'C' (15+16)	149250	151555	151599	142450

**Appendix – 6****Cost of Cultivation of Tapioca during the year 2005-06**

(Per Hectare in Rs.)

Sl No	Components	Holding size Class			
		Small	Medium	Large	All Size
1	Hired human labour	13673	11350	17865	13476
2	Animal labour	0	0	193	46
3	Machine labour	20	415	308	293
4	Seed / seedlings	787	685	1180	828
5	Farmyard manure and chemical fertilizers	6279	5702	6849	6118
6	Plant protection	70	23	59	43
7	Land tax and irrigation Cess	40	93	24	63
8	Repair and maintenance charges of implements, machinery and building	158	148	26	137
9	Interest on working capital	2149	1961	3049	2267
10	Other expenses	659	1435	4033	1865
11	Total Cost 'A' (1-10)	23835	21812	33586	25136
12	Interest on fixed capital	1497	1393	462	1320
13	Cost 'B1' (11+12)	25332	23205	34048	26456
14	Interest on land value	171527	128225	132357	139847
15	Cost 'B' (13+14)	196859	151430	166405	166303
16	Imputed value of household labour	5672	2914	2514	3496
17	Cost 'C' (15+16)	202531	154344	168919	169799



**Appendix – 7****Cost of Cultivation of Banana during the year 2005-06**

(Per Hectare in Rs.)

Sl No	Components	Holding size Class			
		Small	Medium	Large	All Size
1	Hired human labour	27771	25441	37391	31403
2	Animal labour	0	41	0	22
3	Machine labour	1185	624	300	702
4	Seed / Seedlings	10278	9779	10528	11640
5	Farmyard manure and chemical fertilizers	30425	19716	21110	24201
6	Plant protection	1216	604	1856	1013
7	Land tax and irrigation Cess	91	56	48	64
8	Repair and maintenance charges of implements, machinery and building	137	162	55	137
9	Interest on working capital	7088	6692	7119	6898
10	Other expenses (Including soil condition)	0	10714	0	15969
11	Total Cost 'A' (1-10)	78191	73829	78407	76080
12	Interest on fixed capital	1537	1282	2236	1527
13	Cost 'B1' (11+12)	79728	75111	80643	77607
14	Interest on land value	116871	144046	111380	139323
15	Cost 'B' (13+14)	196599	219157	192023	216930
16	Imputed value of household labour	14803	7176	5437	8842
17	Cost 'C' (15+16)	211402	226333	197460	225772

**Appendix – 8****Cost of Cultivation of Pepper during the year 2005-06**

(Per Hectare in Rs.)

Sl No	Components	Holding size Class			
		Small	Medium	Large	All Size
1	Hired human labour	11117	10056	11339	10787
2	Animal labour	--	--	--	--
3	Machine labour	35	255	143	156
4	Seed / seedlings	86	8	5	29
5	Farmyard manure and chemical fertilizers	4562	4870	9656	6422
6	Plant protection	44	98	0	50
7	Land tax and irrigation Cess	76	96	102	92
8	Repair and maintenance charges of implements, machinery and building	139	105	18	117
9	Interest on working capital	1651	1577	2133	1788
10	Other expenses (Including soil condition)	671	486	183	433
11	Total Cost 'A' (1 to 10)	18381	17551	23579	19874
12	Interest on fixed capital	1391	2193	1426	1640
13	Cost 'B1' (11+12)	19772	19744	25005	21514
14	Interest on land value	349275	226915	210423	254934
15	Cost 'B' (13+14)	369047	246659	235428	276448
16	Imputed value of household labour	5244	1677	1412	2568
17	Cost 'C' (15+16)	374291	248336	236840	279016

**Appendix – 9****Cost of Cultivation of Ginger during the year 2005-06**

(Per Hectare in Rs)

Sl No	Components	Holding size Class			
		Small	Medium	Large	All Size
1	Hired human labour	22215	15697	20524	20553
2	Animal labour	34	135	144	0
3	Machine labour	136	538	957	591
4	Seed / seedlings	17088	15455	15467	20275
5	Farmyard manure and chemical fertilizers	14007	14178	13321	13814
6	Plant protection	392	1037	778	774
7	Land tax and irrigation cess	71	132	0	67
8	Repair and maintenance charges of implements, machinery and building	148	218	20	160
9	Interest on working capital	5671	5062	5474	5601
10	Other expenses	2840	3583	3546	0
11	Total Cost 'A' (1-10)	62602	56035	60231	61835
12	Interest on fixed capital	1373	2490	1510	1719
13	Cost 'B1' (11+12)	63975	58525	61741	63554
14	Interest on land value	174959	161974	135481	113385
15	Cost 'B' (13+14)	238934	220499	197222	176939
16	Imputed value of household labour	14542	4627	2955	6561
17	Cost 'C' (15+16)	253476	225126	200177	183500

**Appendix – 10****Cost of Cultivation of Turmeric during the year 2005-06**

(Per Hectare in Rs.)

Sl No	Components	Holding size Class			
		Small	Medium	Large	All Size
1	Hired human labour	19846	13714		17116
2	Animal labour	22	0		12
3	Machine labour	168	326		483
4	Seed / seedlings	7585	6482		7094
5	Farmyard manure and chemical fertilizers	10179	7175		8842
6	Plant protection	150	346		237
7	Land tax and irrigation Cess	59	79		68
8	Repair and maintenance charges of implements, machinery and building	112	145		116
9	Interest on working capital	3967	2879		3507
10	Other expenses	1720	748		1287
11	Total Cost 'A' (1-10)	43808	31894		38762
12	Interest on fixed capital	1080	2559		1269
13	Cost 'B1' (11+12)	44888	34453		40031
14	Interest on land value	328319	140278		244580
15	Cost 'B' (13+14)	373207	174731		284611
16	Imputed value of household labour	10934	6623		9014
17	Cost 'C' (15+16)	384141	181354		293625