

# **Government of Kerala**

Report On
Cost of Cultivation of
Important Crops in Kerala
2013-14

Department of Economics & Statistics KERALA



# Report On Cost of Cultivation of Important Crops in Kerala 2013-14

# Department of Economics & Statistics KERALA 2014

**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. In connection

with 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 2013-14. The crops covered are Paddy (3 seasons), Coconut,

Arecanut, Pepper, Banana, Tapioca, Ginger, Turmeric, Bitter Gourd (3seasons), Cowpea (3

seasons), Pineapple and Cardamom.

The first chapter of this report deals with introduction, concepts and definitions of

the survey. The chapter two of the report gives state wise information. The district wise

tables based on the survey are given in appendix.

The field work of the survey was carried out by the Statistical Investigator/

Enumerators posted in the concerned Taluk Statistical Offices. The report was prepared

in the Cost of Cultivation Division of the Directorate of Economics and Statistics. The

dedicated efforts made by all officers to bring out this publication are very much

appreciated. I hope the report will be useful to, planners, Policymakers and researchers

and other data users.

Suggestions and comments for improvement of this report are most welcome.

17-8-2015 Thiruvananthapuram. V.Ramachandran Director General

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# Chapter I

#### **GENERAL**

#### 1.1 Introduction

Government of Kerala accorded sanction for conducting annual survey of cost of cultivation of important crops in the State from 1980-81 onwards vide G.O.(Rt) 466/79/plg dated 27/10/1979 The present report relates to the 34<sup>th</sup> round of survey conducted during the agricultural year 2013-14.

The crops covered under the round are given below:-

1.	Paddy (3 seasons)
2.	Coconut
3.	Arecanut
4.	Tapioca
5.	Banana
6.	Pepper
7.	Ginger
8.	Turmeric
9.	Pineapple
10.	Bitter gourd(3 seasons)
11.	Cowpea (3 Seasons)
12.	Cardamom

# **Objectives**

The main objective of this survey is 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 the Agricultural Year (July to June) 2013-14

# 1.4. Design of the Survey

The survey covered all the districts in the state by considering taluk as a stratum. From each Taluk, required number of investigator zones were selected using circular systematic sampling method. Crop wise details and number of zones are given below.

Sl. No	Name of crop	Number of
		Zones
1	Coconut, Arecanut, Pepper	4
2	Paddy, Tapioca, Banana, Black Pepper, Ginger, Turmeric	3
	Pineapple, Cardamom.	
3	Cowpea, Bitter gourd	2

#### **Selection of cultivators**

In selected Investigator zones, list of cultivators growing paddy in the previous autumn season is prepared based on the last year's Form I Diary connected with the EARAS survey. From this, 5 cultivators who are likely to be engaged in paddy cultivation during the current year are selected at random for the study for the autumn paddy. Similar procedure is adopted for the selection of cultivators for winter and summer season.

In case the cultivators who selected for cost of cultivation study in Autumn Paddy possess suitable number of plots and engaged in cultivation of other specified crops in stipulated area/numbers will also be selected for the study for other crops like Coconut, Pepper, Arecanut, Banana, Tapioca etc.

If sufficient numbers of suitable plots of other crops are not available with in 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 during the previous 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.

# Number of holdings selected for each crops in a Taluk:

1	Paddy	Autumn	15 (5 holdings each from one Investigator zone)	
		Winter	15 (5 holdings each from one Investigator zone)	
		Summer	15 (5 holdings each from one Investigator zone)	
2	Coconut		20 (5 holdings each from one Investigator zone)	
3	Arecanut		20 (5 holdings each from one Investigator zone)	
4	Pepper		15 (Minimum 2 holdings in one Investigator zone)	
5	Banana		15 (Minimum 2 holdings in one Investigator zone)	
6	Tapioca		15 (Minimum 2 holdings in one Investigator zone)	
7	Ginger		15 (Minimum 2 holdings in one Investigator zone)	
8	Turmeric		15 (Minimum 2 holdings in one Investigator zone)	
9	Pineapple		15(5 holdings each from one Investigator zone)	
10	Bitter gourd	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)	
11	Cowpea	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)	
12	Cardamom		15(5 holdings each from one Investigator zone)	

A holding is to be considered for the study only if the crop coverage is at least 25 cents in the case of Paddy and Cardamom, 10 cents for tapioca, banana and Pineapple and 5 cents for Ginger, Turmeric, Cowpea and Bitter gourd. In the case of perennial crops like coconut, arecanut and pepper the holdings should have 25 trees/plants of which a minimum of 50% should be bearing trees/plants in the selected holding.

The holdings are grouped under three size classes (small, medium and large) for each crop on the basis of the area under the crops in the holding as:

Siza Crayo	Holding size			
Size Group	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		

# 1.5 Schedules

Schedules used 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	Recorded cost incurred for growing the selected crop in each fortnight.

# 1.6 Field work

Fieldwork was done in 61 Taluks. One Investigator/enumerators is posted in each Taluk for this purpose. The investigators visited the selected holdings/cultivators every fortnight/three weeks/one month/two month and recorded fortnightly details of agricultural operations in schedule 5. Periodicity of visit will be vary according to the type of crop.Periodicity of visit are given below

Sl. No	Name of crop	Periodicity
1	Cowpea, Bittergaurd	Fortnight
2	Paddy	Three weeks
3	Cardamom	One month
4	Coconut, Arecanut, Pepper, Paddy, Tapioca, Banana, Black	Two months
	Pepper, Ginger, Turmeric ,Pineapple.	

The fieldwork was supervised by Taluk Statistical Officer/Statistical Inspector at the Taluk level and Deputy Director/ District officer /other district level supervisory officer at the District level.

#### 1.7 Processing and Analysis of Data

The compilation and tabulation were done at district level and consolidation of data, the report writing and analysis are done at the Directorate.

#### 1.8 Method of Estimation

#### (a) Concepts of Cost.

Cost incurred for growing the selected crops are classified under , cost 'A' cost 'B1', Cost 'B' and Cost "C' and the analysis of the data is made as :

#### Cost 'A'

**Cost 'A'** All kind of expenses (paid out costs) actually incurred by the cultivators. includes:

- i. Hired human labour
- ii. Animal labour
- iii. Machine labour
- iv. Seed/ seedlings
- 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,the value of input used out of home stock are inputed. The procedures used for the imputation of values of such home stock inputs are:

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 in kind

The payments in kind have been evaluated at the market prices prevalent in the locality at the time of payment. Perquisites have been included in the payments in kind calculated at the market prices.

# (c)Allocation of costs to different crops

Some of the inputs used for the cultivation of one crop are common for 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	In proportion to the area under the
	implements	crop
Ii	Interest on fixed capital (excluding land)	In proportion to the area under the crop
т	Interest on head of the	•
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 prices prevailing in the locality

etc)

Ii Implements and other machinery prevalent market prices

Iii Livestock (only draught animals) 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 of agricultural land.

#### **CHAPTER 2**

#### RESULTS OF THE SURVEY

The crops selected for this round of study are Paddy, Cowpea and Bitter gourd (autumn, winter and summer) seasons and the remaining crops Coconut, Tapioca, Banana, Pepper, Arecanut, Ginger, Turmeric, Pineapple and Cardamom for the whole year. The cost of cultivation of crops are calculated under three different cost concepts viz Cost 'A', Cost 'B', and Cost 'C' respectively.

# 2.1.1 Paddy- Autumn during 2013-14

For this study details of holding selected and area coverage are given below. The data collected from 720 holding according to the size class by covering 482.90 hectares of land. It is observed that the average area per holding is 0.67 hectares in all classes while area per holding in large size class, is more than two hectares ie 3.20 hectares per holdings. But in small size class, ie, less than .40 hectare which comprises 56.8% holdings the average area per holding is only 0.21 hectare.

Table 1 - Area and number of holdings under autumn paddy

Holding size class	No of selected holdings	Area under the crop in the sample (ha)	Percentage Area	Average Area per holding (ha)
Small	Small 409 87		18.20	0.21
Medium	246	186.80	38.68	0.76
Large 65		208.20	43.12	3.20
Total 720		482.90	100.00	0.67

#### **Cost of cultivation**

As per the estimation of Cost A 58 percent of cost incurred against hired human labour, Machine labour cost shares 12% and farmyard manure and chemical fertilizers accounts to 11% respectively. In holdings size class less than 0.40 hectare, cost under hired human labour is more, ie, 65.84% against total cost under Cost A while in size class above two hectares. The cost percentage under hired human labour is comming down to 54.13 percent, similarly per hectare cost difference between large and small size class is Rs 18959.

.

**Table 2- Cost of Cultivation per hectare(in Rs.) of paddy (autumn)** 

C1			Holding size Class		
S1 No	Components	Small	Medium	Large	All Size
1	Hired human labour	45101	28194	26821	30689
2	Animal labour	234	19	14	56
3	Machine labour	6485	6005	6964	6505
4	Seed / seedlings	2054	2140	2319	2201
5	Farmyard manure and chemical fertilizers	6700	5953	5503	5895
6	Plant protection	385	285	245	286
7	Land tax and irrigation cess	109	106	149	125
8	Repair and maintenance charges of implements, machinery and building	731	271	113	287
9	Interest on working capital	3222	2359	2347	2511
10	Other expenses	3481	4574	5068	4587
11	Total cost 'A' (1-10)	68502	49906	49543	53142
12	Interest on fixed capital	2276	1026	1437	1431
13	Cost 'B1' (11+12)	70778	50932	50980	54573
14	Interest on land value	129268	73735	37589	68309
15	Cost 'B' (13+14)	200046	124667	88569	122882
16	Imputed value of household labour	8325	5272	2815	4771
17	Cost 'C' (15+16)	208371	129939	91384	127653

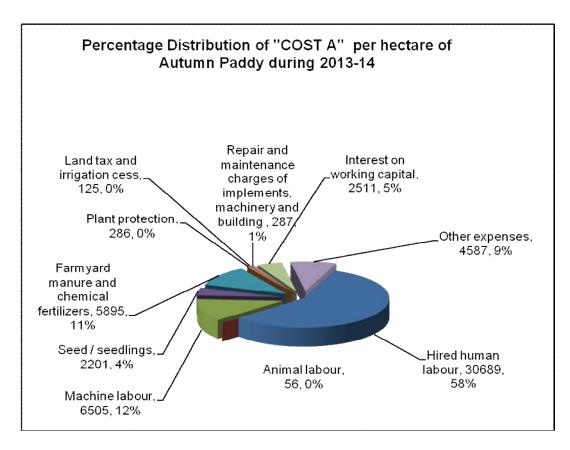


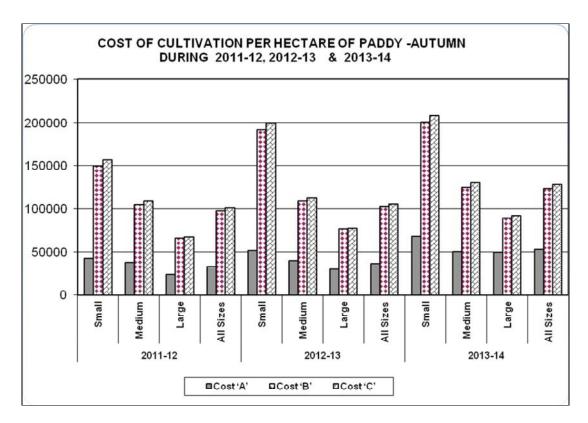
Table 3: Percentage of hired human labour hours to total human labour hours

Sex	Holding size class				
	Small	Medium	Large	All Sizes	
Male	25.37	25.34	26.63	25.76	
Female	52.70	55.64	61.20	56.73	
Total	78.07	80.98	87.83	82.49	

In Autumn paddy cultivation 56.73% of total labour hours shares to female.

Table: 4 Cost of cultivation of Autumn paddy per hectare(in Rs.) during 2011-12, 2012-2013 and 2013-14

Concept of	Year -	Holding size class				
cost	1 cai	Small	Medium	Large	All Sizes	
	2011-12	42440	37355	23313	32713	
Cost 'A'	2012-13	51551	39812	29846	35968	
	2013-14	68502	49906	49543	53142	
	2011-12	149329	104307	65501	97358	
Cost 'B'	2012-13	191557	108306	76028	102303	
	2013-14	200046	124667	88569	122882	
	2011-12	156353	108390	67189	101043	
Cost 'C'	2012-13	198950	112064	77249	105174	
	2013-14	208371	129939	91384	127653	



The last three years data shows substancial increase in cost of paddy cultivation in the state. Compared to 2011-12 autumn season in 2013-14 autumn season the cost per hectare increased by Rs 20429

# 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 2013-14 for producing one quintal of paddy Rs.1543/- has been expended by the farmer when Cost 'A' is considered. Details are given below:

Table: 5 Per Quintal Cost (In Rs.) of Production of Autumn paddy during 2011-12, 2012-13 & 2013-14

Concept of	V	Holding size class				
cost	Year	Small	Medium	Large	All Sizes	
	2011-12	1436	1165	582	942	
Cost 'A'	2012-13	2005	1679	958	1277	
	2013-14	2083	1461	1401	1543	
	2011-12	5048	3256	1635	2802	
Cost 'B'	2012-13	7451	4568	2437	3634	
	2013-14	6084	3650	2505	3569	
	2011-12	5286	3384	1677	2908	
Cost 'C'	2012-13	7739	4727	2476	3736	
	2013-14	6337	3804	2585	3708	

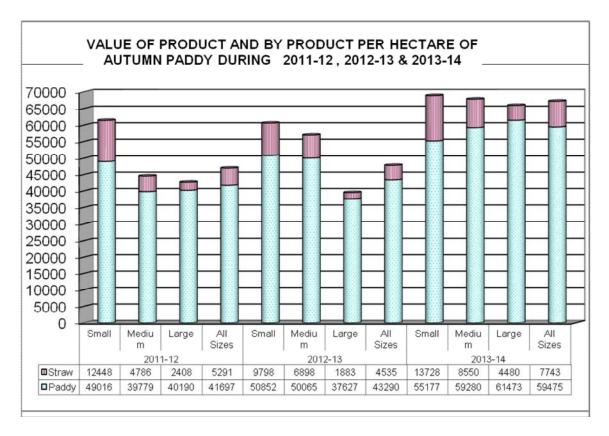
# Value of product and by product

Details of product and by-product per hectare in Autumn Paddy during the last three years.

Table: 6 Value of product and by-product per hectare(in Rs.) of Autumn paddy during 2011-12, 2012-13 & 2013-14

Year	Product/	Holding size class			
	By product	Small	Medium	Large	All size
	Paddy	49016	39779	40190	41697
2011-12	Straw	12448	4786	2408	5291
	Total	61464	44565	42598	46988
	Paddy	50852	50065	37697	43290
2012-13	Straw	9798	6898	1883	4535
	Total	60650	56963	39510	47825
	Paddy	55177	59280	61473	59475
2013-14	Straw	13728	8550	4480	7743
	Total	68905	67830	65953	67218

Per hectare value of product and by product in Autumn season increased considerably during 2013-14 compared to last two years. Percentage change in value of product and by product between the year 2011-12 and 2013-14 is 69.9%.But in the same period cost increased by 41.6%



# 2.1.2 Paddy-Winter during 2013-14

During 2013-14 Cost of cultivation study on winter paddy was conducted in 850 holdings according the size class by covering 705.70 hectare of land. The average area per holding during the season under study is 0.83 hectare. In winter season area per holding in large size class is four hectare and in small size class it is only 0.23 hectare, a marginal increase from autumn season

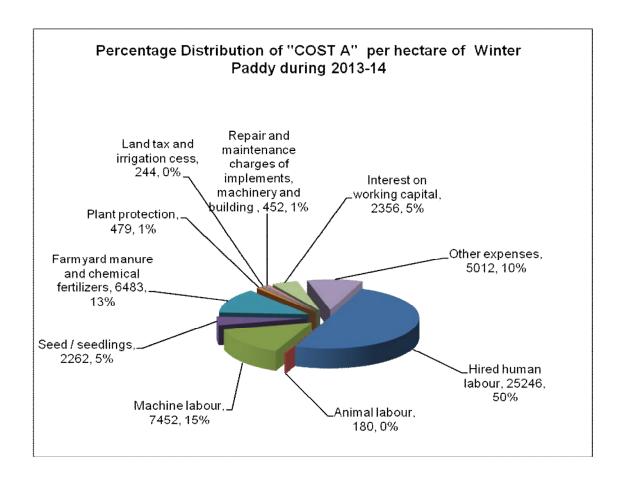
Table 7 – Area and number of holdings under winter paddy

Holding size class	No of selected holdings	Area under the crop in the sample (ha)	Percentage Area	Area per holding (ha)
Small	428	96.80	13.72	0.23
Medium	337	269.00	38.12	0.80
Large	85	339.90	48.16	4.00
Total	850	705.70	100.00	0.83

In Cost A, the major share of the cost component was hired human labour. It constitutes 50% per cent. Another two major contributing factor in cost are machine labour and farmyard manure and chemical fertilizers which constitutes 15% and 13% respectively. Interest on working capital accounts was 5%. By considering the various cost component of winter paddy cultivation it can be seen that per hectare cost calculated as Rs.50166/- which is less than the cost of autumn season in the tune of Rs 2876 per hectare. Considerable reduction in hired human labour component is reported in winter season during 2013-14. Cost difference in human hired labour between small and large size class is Rs 18791.

Table 8 – Cost of cultivation per hectare (in Rs.) of paddy(winter)

Sl	Commonanta		Holding	size Class	
No	Components	Small	Medium	Large	All Size
1	Hired human labour	38390	27831	19428	25246
2	Animal labour	445	281	23	180
3	Machine labour	6512	6445	8519	7452
4	Seed / seedlings	2394	2293	2199	2262
5	Farmyard manure and chemical fertilizers	7539	6721	5992	6483
6	Plant protection	477	392	549	479
7	Land tax and irrigation Cess	170	256	255	244
8	Repair and maintenance charges of implements, machinery and building	1165	530	185	452
9	Interest on working capital	2993	2396	2141	2356
10	Other expenses	4105	3956	6108	5012
11	Total Cost 'A' (1-10)	64190	51101	45399	50166
12	Interest on fixed capital	1772	666	284	635
13	Cost 'B1' (11+12)	65962	51767	45683	50801
14	Interest on land value	124186	90176	52073	76542
15	Cost 'B' (13+14)	190148	141943	97756	127343
16	Imputed value of household labour	9356	5564	2663	4692
17	Cost 'C' (15+16)	199504	147507	100419	132035



Sex wise work participation in hired human labours for winter paddy cultivation reveals that 52.71% of work shared by Female whereas 30.27% shared by male workers.

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

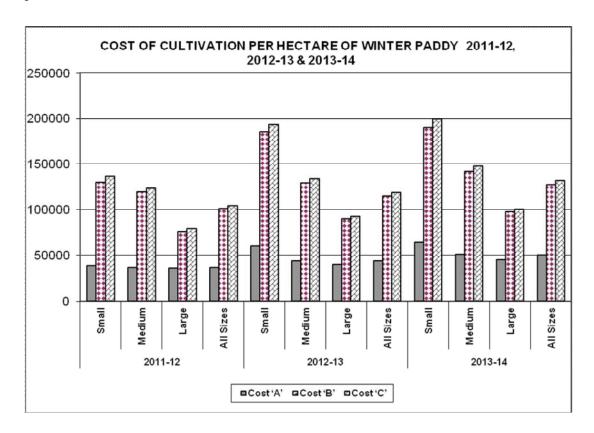
Table 9 – Percentage of hired human labour hours to total human labour hours

Sex	Holding size class					
Sex	Small	Medium	Large	All Sizes		
Male	31.39	30.93	28.92	30.27		
Female	43.79	51.39	58.97	52.71		
Total	75.18	82.32	87.89	82.98		

Table: 10 Cost of cultivation of Winter paddy per hectare (in Rs) during 2011-12, 2012-13 &2013-14

Concept	Vaan	Holding Size class				
of cost	Year	Small	Medium	Large	All size	
	2011-12	38713	36431	35819	36491	
Cost 'A'	2012-13	60407	44064	40142	43955	
	2013-14	64190	51101	45399	50166	
	2011-12	130131	119508	76257	100738	
Cost 'B'	2012-13	185309	129666	89778	115022	
	2013-14	190148	141943	97756	127343	
	2011-12	136557	123093	79403	104549	
Cost 'C'	2012-13	193533	134219	92104	118826	
	2013-14	199504	147507	100419	132035	

The result of the survey shows an increase of 37.47 percentage of cost during 2013-14 from the year 2011-12. In the bottom size class the cost increased by 65.8 percentage during the same period.



# Cost of production of Winter paddy

Table: 11 Per Quintal Cost(in Rs.) of production of winter paddy during 2011-12,2012-13&2013-14

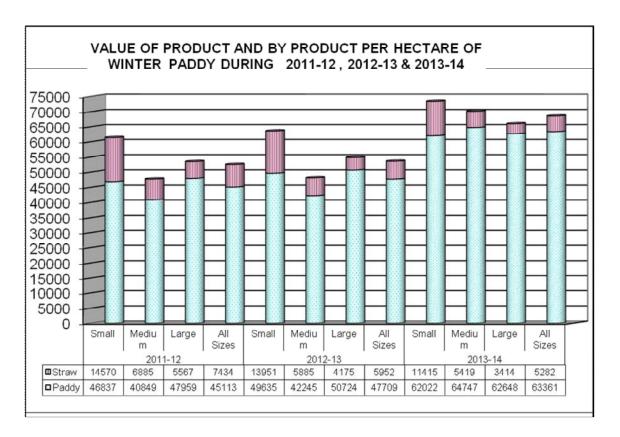
Concept of	Year	Holding size class				
cost	i ear	Small	Medium	Large	All Sizes	
	2011-12	1039	1206	963	1054	
Cost 'A'	2012-13	2114	1506	1080	1314	
	2013-14	1934	1428	1312	1440	
	2011-12	3493	3956	2051	2913	
Cost 'B'	2012-13	6469	4433	2414	3439	
	2013-14	5734	3968	2825	3655	
	2011-12	3666	4075	2136	3023	
Cost 'C'	2012-13	6757	4589	2477	3553	
	2013-14	6016	4124	2902	3790	

Output

Table: 12 - Value of Product and Byproduct per hectare(in Rs)of Winter paddy during 2011-12,2012-13 and 2013-14

Year	Product/		Holding si	ze class	
i ear	By product	Small	Medium	Large	All size
	Paddy	46837	40849	47959	45113
2011-12	Straw	14570	6885	5567	7434
	Total	61407	47734	53526	52547
	Paddy	49635	42245	50724	47709
2012-13	Straw	13951	5885	4175	5952
	Total	63586	48130	54899	53661
	Paddy	62022	64747	62648	63361
2013-14	Straw	11415	5419	3414	5282
	Total	73437	70166	66062	68643

Compared to autumn 2013-14 per hectare value of product and by product increased marginally during the winter season. Similarly per hectare value of product and by product increased by 30.63 percentage in 2013-14 winter season against the value of 2011-12 in the same season.



# 2.1.3 Paddy - Summer (Punja) during 2013-14

For the cost of cultivation study on summer paddy during 2013-14 the total number of holdings selected was 687. Number of holdings selected in large holding size is 76. The details of these holdings are presented below:

Table 13: Area and number of holdings under Summer Paddy

Holding size class	No of selected holdings	Area under the crop in the sample (ha)	Percentage	Area per holding (ha)
Small	365	86.40	12.75	0.24
Medium	246	196.10	28.94	0.80
Large	76	395.10	58.31	5.20
All Size	687	677.60	100.00	0.99

The above table reveals that the total area under cultivation in the selected sample holdings covers to 677.60 hectares and the average size of a holding is 0.99 hectare. In the large

size class the average area per holding is 5.20 hectare which is small size class area per holding is 0.24 hectare only.

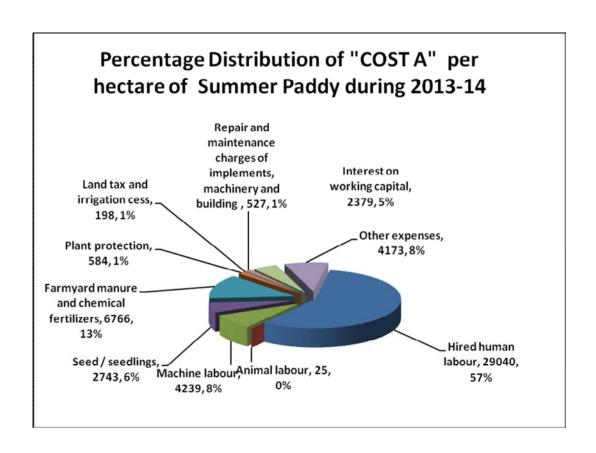
# **Cost of Cultivation**

Cost of cultivation of summer paddy per hectare is estimated as Rs. **50674**/- when cost 'A' is considered. Component wise holding size class details are presented below:

Table 14: Cost of Cultivation per hectare(in Rs.) of paddy(summer)

Sl	Commonants		Holding	size Class	
No	Components	Small	Medium	Large	All Size
1	Hired human labour	37205	30488	26520	29040
2	Animal labour	51	64	0	25
3	Machine labour	6707	4244	3693	4239
4	Seed / seedlings	2173	2422	3028	2743
5	Farmyard manure and chemical fertilizers	6019	6376	7124	6766
6	Plant protection	558	691	537	584
7	Land tax and irrigation Cess	429	261	116	198
8	Repair and maintenance charges of implements, machinery and building	1620	681	208	527
9	Interest on working capital	2811	2453	2246	2379
10	Other expenses	3507	4765	4026	4173
11	Total Cost 'A' (1-10)	61080	52445	47498	50674
12	Interest on fixed capital	1903	907	185	615
13	Cost 'B1' (11+12)	62983	53352	47683	51289
14	Interest on land value	156597	111502	59526	87025
15	Cost 'B' (13+14)	219580	164854	107209	138314
16	Imputed value of household labour	20722	6856	2402	6041
17	Cost 'C' (15+16)	240302	171710	109611	144355

Out of the total cost increased for crop husbandry more than 50 percent cost goes to human labour component. Similarly compare to last two seasons a slight decrease in total cost during the summer season is reported.



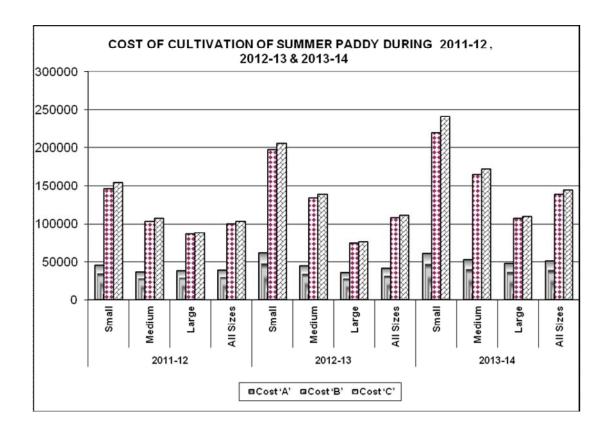
In summer paddy cultivation female labour participation accounted as 45.27 % to the total labour hours. Details are given below:

Table 15: Percentage of hired human labour hours to total human labour hours

Corr	Holding size class				
Sex	Small	Medium	Large	All Sizes	
Male					
	35.41	31.97	43.96	37.78	
Female					
	39.84	47.29	46.76	45.27	
Total					
	75.25	79.26	90.72	83.05	

Table: 16 Cost of Cultivation of Summer paddy per hectare(in Rs) during 2011-12,2012-13 and 2013-14

Concept	Year	Holding Size class				
of cost		Small	Medium	Large	All size	
	2011-12	45679	36969	38604	38878	
Cost 'A'	2012-13	62363	44679	35977	41862	
	2013-14	61080	52445	47498	50674	
	2011-12	145384	103203	86431	99861	
Cost 'B'	2012-13	197460	134114	74137	107345	
	2013-14	219580	164854	107209	138314	
	2011-12	154182	107182	87687	103046	
Cost 'C'	2012-13	204883	138206	76168	110663	
	2013-14	240302	171710	109611	144355	



# Output

Table: 17 Per Quintal Cost(in Rs.) of production of Summer paddy during 2011-12, 2012-13& 2013-14

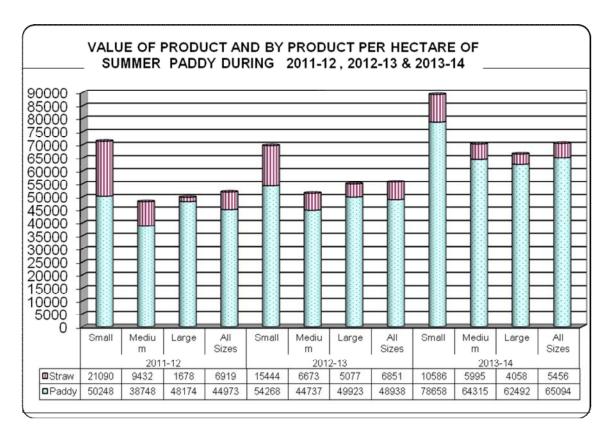
Concept of	Year		Holding size class			
cost	i eai	Small	Medium	Large	All Sizes	
	2011-12	1271	1063	1010	1058	
Cost 'A'	2012-13	2071	1294	946	1164	
	2013-14	2123	1442	1167	1395	
	2011-12	4041	2966	2260	2720	
Cost 'B'	2012-13	6557	3886	1951	2984	
	2013-14	5923	4771	2981	3954	
	2011-12	4286	3080	2293	2807	
Cost 'C'	2012-13	6803	4005	2004	3076	
Cost C	2013-14	6423	4974	3054	4130	

Above table reveals that for producing one quintal of paddy in summer season an amount of Rs 1395/- is required when cost 'A' is considered. Per hectare value of paddy produced during the season is calculated as **Rs.65094**/- and the value of by-product viz. straw is estimated as **Rs.5456**/-

Table 18: Value of Product and by product per hectare(in Rs) of summer paddy during 2011-12,2012-13 and 2013-14

Year	Product/	Holding size class				
i ear	By product	Small	Medium	Large	All size	
2011-12	Paddy	50248	38748	48174	44973	
	Straw	21090	9432	1678	6919	
	Total	71338	48180	49852	51892	
2012-13	Paddy	54268	44737	49923	48938	
	Straw	15444	6673	5077	6851	
	Total	69712	51410	55000	55789	
2013-14	Paddy	78658	64315	62492	65094	
	Straw	10586	5995	4058	5456	
	Total	89244	70310	66550	70550	

The study reveals that the per quintal cost for the production of paddy decreasing and value of product and by product increasing over the previous two years.



#### **2.2 Coconut during 2013-14**

The area as well as production of coconut in the state has been declining. The data regarding the cost of cultivation of Coconut is significant. As there is a general feeling among the cultivators that the profitability of the crop is decreasing due to the prevelance of high cost involved to the cultivation. To conduct the study 1213 sample holdings selected in the state from the different holdings size classes. The average area per holding was 0.44 hectare. Details of the study conducted during 2013-14 are presented below.

Table 19: Area and number of holdings under Coconut cultivation

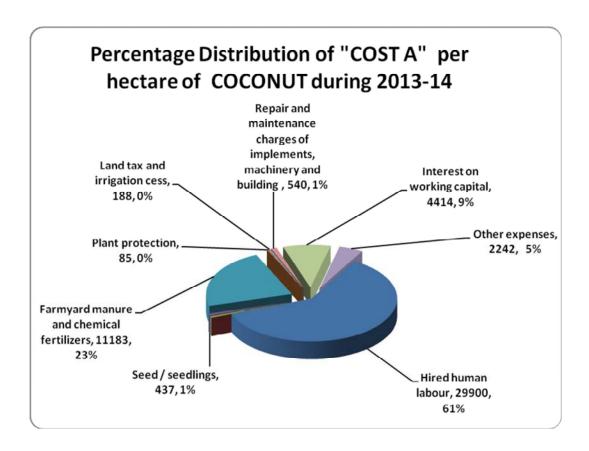
Holding size class	No of selected holdings	Area under the coconut in the sample (ha)	Percentage	Area per holding (ha)
Small	410	57.90	10.82	0.14
Medium	603	225.80	42.20	0.37
Large	200	251.40	46.98	1.26
Total	1213	535.10	100.00	0.44

#### **Cost of Cultivation**

Cost per hectare for cultivating coconut during 2013-14 was Rs 49277 excluding interest on fixed capital,land value and value of household labour.Out of this 61% of total cost is for the component of hired human labour and 23% for farmyard manure and chemical fertilizer.

Table 20: Cost of Cultivation per hectare (in Rs.) of Coconut

Sl	Commonanto		Holding size Class			
No	Components	Small	Medium	Large	All Size	
1	Hired human labour	41471	30251	26902	29900	
2	Animal labour	0	0	0	0	
3	Machine labour	61	218	403	288	
4	Seed / seedlings	384	566	332	437	
5	Farmyard manure and chemical fertilizers	14138	10543	11072	11183	
6	Plant protection	188	84	62	85	
7	Land tax and irrigation Cess	286	150	200	188	
8	Repair and maintenance charges of implements, machinery and building	1630	556	273	540	
9	Interest on working capital	5948	4372	4094	4414	
10	Other expenses	3240	2061	2173	2242	
11	Total Cost 'A' (1-10)	67346	48801	45511	49277	
12	Interest on fixed capital	5596	2344	1599	2348	
13	Cost 'B1' (11+12)	72942	51145	47110	51625	
14	Interest on land value	1065820	732152	370377	620809	
15	Cost 'B' (13+14)	1138762	783297	417487	672434	
16	Imputed value of household labour	12262	7091	4857	6605	
17	Cost 'C' (15+16)	1151024	790388	422344	679039	



The above data reveals that the major two inputs are hired human labour and farmyard manure and chemical fertilizers. Both of these items are accounted as 61% and 23% respectively.

The following table reveals percentage distribution of hired human labour hours to the total human labour hours. The percentage share of female participation in total human labour hours are below 15 percentage.

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

Sex	Holding Size Class				
Sex	Small	Medium	Large	All Sizes	
Male	53.86	44.33	67.16	54.27	
Female	15.30	11.11	17.91	14.23	
Total	69.16	55.44	85.07	68.50	

Table 22: Cost of cultivation of coconut per hectare(in Rs.) during 2011-12, 2012-13 & 2013-14

Concept of	Year		Holding Size class				
cost	1 cai	Small	Medium	Large	All size		
	2011-12	42493	38419	35719	37361		
Cost 'A'	2012-13	63856	38173	41277	42390		
	2013-14	67346	48801	45511	49277		
	2011-12	691594	417412	329797	395695		
Cost 'B'	2012-13	1129387	648597	438442	596541		
	2013-14	1138762	783297	417487	672434		
	2011-12	699215	422330	332184	399521		
Cost 'C'	2012-13	1136687	654413	441487	601160		
	2013-14	1151024	790388	422344	679039		

#### Value of output

Table 23: Value of Output per hectare (in Rs) of Coconut

Product/By-	Holding Size Class				
product	Small	Medium	Large	All Sizes	
Product	94355	89649	84783	87877	
By-Product	4658	3981	4773	4427	
Total	99013	93630	89556	92304	

The study reveals that the value of output is Rs.92304/- per hectare were as the cost per hectare is Rs 49277/-.

# 2.3 Arecanut during 2013-14

Arecanut is one among the cash crops cultivating in the state. Similar to some other crops the area of this crops shrinking on varied reason especially the cost of cultivation. To study the cost 1215 sample holding selected under three holdings size class namely small, medium and large. The average area per holding was 0.19 hectare and the total area of the crop under the sample was 235.5 hectare.

Table. 24 Area and Number of holdings under Arecanut cultivation

Holding size class	No of selected holdings	Area under the crop in the sample (ha)	Percentage	Area per holding (ha)
Small	852	58.70	24.93	0.07
Medium	274	82.70	35.12	0.30
Large	89	94.10	39.95	1.06
All size	1215	235.50	100.00	0.19

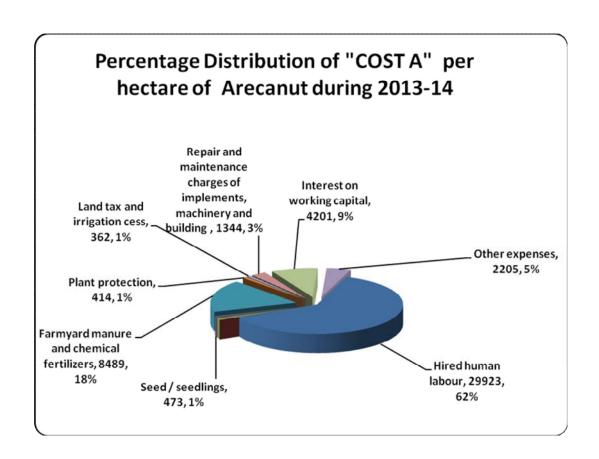
For this study 1215 holdings were selected. It had an operational area of 235.50 hectare. The average size per holding was 0.19 hectare.

#### **Cost of Cultivation**

The different cost components of Arecanut cultivation is given below: Per hectare cost expenses is worked out as Rs. 47912/- excluding interest on fixed capital, interest on land value and household labour components. Out of this 62% cost is for hired human labour and 18% for farmyard manure and chemical fertilizers.

Table 25: Cost of Cultivation per hectare (in Rs.) of Arecanut

Sl	Comment		Holding	size Class	
No	Components	Small	Medium	Large	All Size
1	Hired human labour	33141	31489	26521	29923
2	Animal labour	0	0	0	0
3	Machine labour	164	466	745	501
4	Seed / seedlings	651	356	464	473
5	Farmyard manure and chemical fertilizers	8299	7087	9842	8489
6	Plant protection	235	491	459	414
7	Land tax and irrigation Cess	276	319	453	362
8	Repair and maintenance charges of implements, machinery and building	3183	921	563	1344
9	Interest on working capital	4475	4199	4030	4201
10	Other expenses	2257	2096	2267	2205
11	Total Cost 'A' (1-10)	52681	47424	45344	47912
12	Interest on fixed capital	7615	5794	2494	4935
13	Cost 'B1' (11+12)	60296	53218	47838	52847
14	Interest on land value	691729	434892	281596	438089
15	Cost 'B' (13+14)	752025	488110	329434	490936
16	Imputed value of household labour	9659	6788	5790	7109
17	Cost 'C' (15+16)	761684	494898	335224	498045



When Cost A is considering, 62% comes under hired human labour and followed by 18% in Farmyard manure and chemical fertilizers.

The following table illustrates the work participation of arecanut cultivation. It shows that out of 72.96 per cent of the total labour hours 19% has been shared by females..

Table 26: Percentage of hired human labour hours to total human Labour hours

Sex	Holding size class				
	Small	Medium	Large	All Sizes	
Male	42.77	53.61	63.65	53.68	
Female	16.28	21.50	19.53	19.28	
Total	59.05	75.11	83.18	72.96	

Table 27: Cost of production of Arecanut per hectare (in Rs) during 2011-12,2012-13 and 2013-14

Concept of cost	Year	Holding Size class				
		Small	Medium	Large	All size	
Cost 'A'	2011-12	42569	41463	38145	40560	
	2012-13	44868	37978	41341	41114	
	2013-14	52681	47424	45344	47912	
Cost 'B'	2011-12	483827	317661	339319	371815	
	2012-13	693255	369494	177459	435083	
	2013-14	752025	488110	329434	490936	
	2011-12	492514	323536	343227	377754	
Cost 'C'	2012-13	699482	374293	181114	440102	
	2013-14	761684	494898	335224	498045	

# Value of Out put

Table 28: Value of Output per hectare (in Rs) of Arecanut

The estimated value of output per hectare is Rs.110201/- against the per hectare cost A of Rs 47912.

Holding Size Class				
Small	Medium	Large	All Sizes	
117615	114895	101411	110201	

# **2.4 Tapioca during 2013-14**

Area under the crop in this study was 187.40 hectare from 1003 holdings.

Table 29: Area and Number of Holdings under Tapioca cultivation

Size class	No of selected holdings			Area per holding (ha)
Small	713	49.00	26.15	0.07
Medium	242	89.00	47.49	0.37
Large	48	49.40 26.36		1.03
All Size	1003	187.40	100.00	0.19

The average size of a selected holding is 0.19 hectare and number of holding selected for the survey is 1003.

#### **Cost of Cultivation**

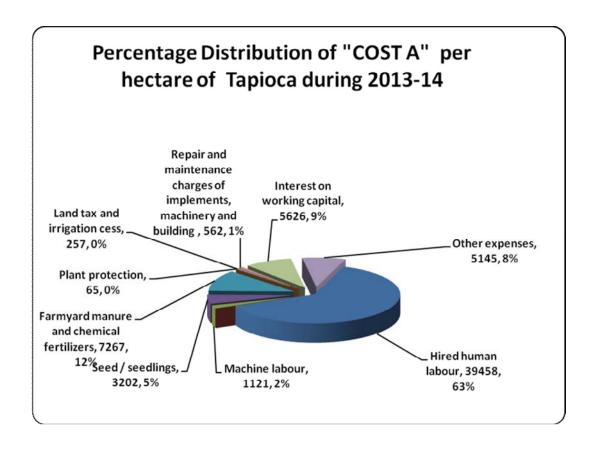
When Cost A is considered per hectare cost of cultivation of tapioca is worked out Rs. 62703/- In this hired labour cost constituted 63% where as farmyard manure and chemical fertilizers shares 12% of the Cost A.

The cost of cultivation of Tapioca under different concepts is given below.

Table 30: Cost of cultivation per hectare (in Rs) of tapioca

Sl	Components	Holding size Class				
No	Components	Small	Medium	Large	All Size	
1	Hired human labour	43307	36573	40796	39458	
2	Animal labour	0	0	0	0	
3	Machine labour	284	376	3295	1121	
4	Seed / seedlings	3556	3168	2912	3202	
5	Farmyard manure and chemical fertilizers	9043	6713	6487	7267	
6	Plant protection	98	57	47	65	
7	Land tax and irrigation Cess	215	186	426	257	
8	Repair and maintenance charges of implements, machinery and	1248	405	159	562	

	building				
9	Interest on working capital	6202	5116	5966	5626
10	Other expenses	5728	4277	6122	5145
11	Total Cost 'A' (1-10)	69681	56871	66210	62703
12	Interest on fixed capital	1646	546	123	724
13	Cost 'B1' (11+12)	71327	57417	66333	63427
14	Interest on land value	665535	318300	258354	393901
15	Cost 'B' (13+14)	736862	375717	324687	457328
16	Imputed value of household labour	25282	15036	11561	16817
17	Cost 'C' (15+16)	762144	390753	336248	474145



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

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

Corr	Holding Size Class				
Sex	Small	Medium	Large	All Sizes	
Male	41.51	41.51 49.64		48.89	
Female	14.48	14.48 19.68		18.65	
Total	55.99	69.32	79.08	67.54	

In tapioca cultivation 67.54% of the total human labour hours has been shared by hired human labour.

Table 32: Cost of production of tapioca per hectare (In Rs.) during 2011-12, 2012-13 & 2013-14

A comparative statement for 2011-12, 2012-13 and 2013-14 for cost of cultivation of different

concept is given below.

Concept of	Year	Holding Size class					
cost	i eai	Small	Medium	Large	All size		
	2011-12	50242	52024	49948	50907		
Cost 'A'	2012-13	67492	53917	62546	59770		
	2013-14	69681	56871	66210	62703		
	2011-12	389729	352135	166043	310953		
Cost 'B'	2012-13	531383	288167	195975	316722		
	2013-14	736862	375717	324687	457328		
	2011-12	402061	364334	173439	321839		
Cost 'C'	2012-13	555070	297352	207202	331356		
	2013-14	762144	390753	336248	474145		

## Value of Out put

Table 33: Value of Output per hectare (In Rs.) of Tapioca

Holding Size Class					
Small	Medium	Large	All Sizes		
265583 189878		224912	219033		

The value of output for all holding size class do not have much variation. It is estimated Rs.219033/- per hectare where as cost per hectare worked out is Rs 62703 when cost 'A'alone is under consideration.

## 2.5 Banana during 2013-14

To study the cost of cultivation on banana 857 sample holdings were selected by covering an area of 231.90 hectares. Under three different holding size classes with an average area per holding of 0.27 hectare.

Table 34: Area and Number of holdings selected under Banana cultivation

Size class	No of selected holdings	Area under the crop in the sample (ha)	Percentage to Total area	Area per holding (ha)
Small	489	48.80	21.04	0.10
Medium	301	106.00	45.71	0.35
Large	67	77.10	33.25	1.15
All Size	857	231.90	100.00	0.27

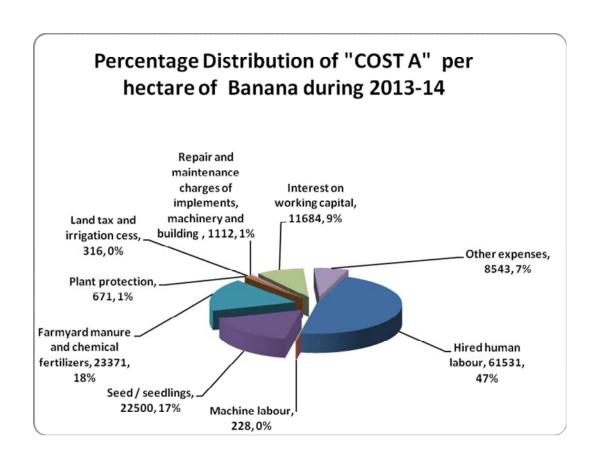
#### **Cost of Cultivation**

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'. When Cost A is considered, cost of cultivation per hectare is Rs.129956/-.Out of this 47% cost involved in hired human labour component and 18% cost for farmyard manure and chemical fertilizers.

Table 35: The Cost of cultivation per hectare (in Rs.) of Banana

Sl	Components	Holding size Class				
No	Components	Small	Medium	Large	All Size	
1	Hired human labour	63235	52230	73215	61531	
2	Animal labour	0	0	0	0	
3	Machine labour	135	172	365	228	
4	Seed / seedlings	25173	21522	22138	22500	
5	Farmyard manure and chemical fertilizers	27963	22361	21829	23371	
6	Plant protection	856	601	648	671	
7	Land tax and irrigation Cess	281	402	221	316	
8	Repair and maintenance charges of implements, machinery and building	2823	941	259	1112	
9	Interest on working capital	12742	10571	12538	11684	

10	Other expenses	10061	8824	7189	8543
11	Total Cost 'A' (1-10)	143269	117624	138402	129956
12	Interest on fixed capital	2492	1186	584	1263
13	Cost 'B1' (11+12)	145761	118810	138986	131219
14	Interest on land value	752288	541431	379822	532426
15	Cost 'B' (13+14)	898049	660241	518808	663645
16	Imputed value of household labour	33493	24808	19231	24796
17	Cost 'C' (15+16)	931542	685049	538039	688441



In this hired human labour cost accounted as 47 percent where as farmyard manure and chemical fertilizers cost as 18 percent respectively of the total Cost 'A'. Seed/seedling cost constitutes to 17% of the total cost 'A'.

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

Table: 36 Percentage of hired human labour hours to the total human labour hours

Cov	Holding Size Class				
Sex	Small	Medium	Large	All Sizes	
Male	41.32	48.84	51.64	48.10	
Female	16.55	25.31	15.88	20.06	
Total	57.87	74.15	67.52	68.16	

Table 37: Cost of production of Banana per hectare(In Rs.) during 2011-12, 2012-13 & 2013-14

A comparative statement for 2011-12, 2012-13 and 2013-14 for cost of cultivation of different concept is given below.

Concept	Year	Holding Size class				
of cost	i eai	Small	Medium	Large	All size	
	2011-12	133683	133298	126369	130342	
Cost 'A'	2012-13	175448	119813	117009	128621	
	2013-14	143269	117624	138402	129956	
	2011-12	578811	395319	338793	410808	
Cost 'B'	2013-14	867139	603244	316628	546378	
	2012-13	898049	660241	518808	663645	
	2011-12	609642	420667	351704	431904	
Cost 'C'	2012-13	915840	624238	342684	574089	
	2013-14	931542	685049	538039	688441	

# Value of out put

Table 38: Value of Output per hectare(In Rs.) of Banana

Holding Size Class					
Small Medium Large All Sizes					
379506	371588	404766	384288		

During 2013-14 per hectare value of output from banana cultivation is estimated out as **Rs. 384288**/- whereas the cost A is Rs 129956.

# **2.6 Pepper during 2013-14**

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

Table 39 - Area and number of holdings under Pepper cultivation

Holding size class	No of selected holdings	Area under the crop in the sample (ha)	Percentage	Area per holding (ha)
Small	785	44.50	42.75	0.06
Medium	120	35.60	34.20	0.30
Large	23	24.00	23.05	1.04
Total	928	104.10	100.00	0.11

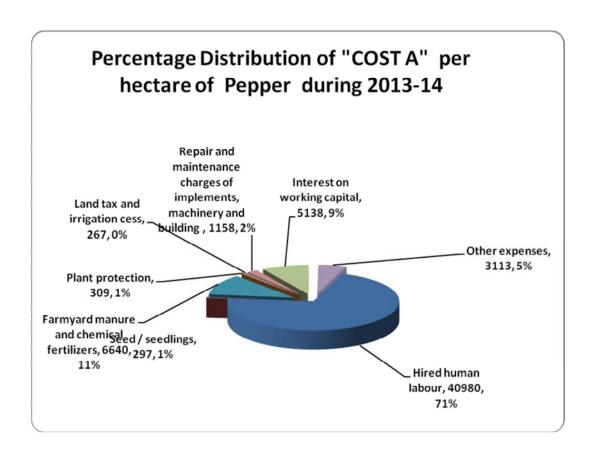
#### **Cost of cultivation**

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 40: Cost of cultivation per hectare (in Rs.) of Pepper

Sl	Commonts	Holding size Class			
No	Components	Small	Medium	Large	All Size
1	Hired human labour	41245	40625	41019	40980
2	Animal labour	0	0	0	0
3	Machine labour	56	61	0	45
4	Seed / seedlings	277	386	199	297
5	Farmyard manure and chemical fertilizers	7133	6843	5420	6640
6	Plant protection	259	352	338	309
7	Land tax and irrigation Cess	310	249	215	267
8	Repair and maintenance charges of implements, machinery and building	1982	588	473	1158
9	Interest on working capital	5346	5031	4914	5138
10	Other expenses (Including soil condition)	4486	2041	2159	3113

11	Total Cost 'A' (1 to 10)	61094	56176	54737	57947
12	Interest on fixed capital	2279	886	633	1423
13	Cost 'B1' (11+12)	63373	57062	55370	59370
14	Interest on land value	815034	466406	269485	570208
15	Cost 'B' (13+14)	878407	523468	324855	629578
16	Imputed value of household labour	22701	18825	4310	17147
17	Cost 'C' (15+16)	901108	542293	329165	646725



The survey results reveal that out of the total cost involved in pepper cultivation 71% is for hired human labour component and cost for farmyard manure and chemical fertilizer and interest on working capital are 11 and 9 percentage respectively Details are given below:

Table 41: Percentage of hired human labour hours to total human labour hours

Sex	Holding size class			
Sex	Small	Medium	Large	All Sizes
Male	40.92	51.71	55.58	47.39
Female	17.35	19.42	24.95	19.45
Total	58.27	71.13	80.53	66.84

Table 42: Cost of cultivation of Pepper per hectare (In Rs.) during 2011-12, 2012-2013 & 2013-14.

A comparative statement for 2011-12, 2012-13 & 2013-14 for cost of cultivation of different concept is given below.

Concept	Year	Holding Size class				
of cost	i eai	Small	Medium	Large	All size	
	2011-12	49470	44576	49378	48121	
Cost 'A'	2012-13	61501	42726	42482	47981	
	2013-14	61094	56176	54737	57947	
	2011-12	474743	510178	359886	448649	
Cost 'B'	2012-13	861292	474664	328008	537733	
	2013-14	878407	523468	324855	629578	
	2011-12	484770	520301	367436	457933	
Cost 'C'	2012-13	876996	483891	334955	548073	
	2013-14	901108	542293	329165	646725	

# Value of out put

Table 43: Value of Output per Hectare (In Rs.) of Pepper

Holding Size Class					
Small	Medium	Large	All Sizes		
176142	151345	150543	161762		

During 2013-14 it is estimated that Rs 161762/ has been received as value of output from per hectare pepper cultivation whereas cost A is 57947.

## 2.7 Ginger during 2013-14

For the cost of cultivation study during 2013-14, 713 sample holdings were selected for the crop ginger and total area covered for study is 87.80 hectare.

Table 44: Area and number of holdings under Ginger cultivation

Holding size class	ize class No of selected holdings Area under the crop in the sample (ha)		Percentage to total Area	Average area per holding (ha)
Small	mall 612 28.90		32.92	.05
Medium	86	27.90	31.78	0.32
Large	15	31.00	35.30	2.07
All sizes	713	87.80	100.00	0.12

#### **Cost of cultivation**

Among the various components of cost of ginger cultivation hired human labour, seed/seedling, fertilizer, etc. are the top three components. Hired human labour alone accorded 43% of the total cost. Seed/seedling and farmyard manure and fertilizer share is 29% and 13% of total cost of production.

Table 45 Cost of Cultivation per hectare (in Rs.) of Ginger

Sl	Components	Holding size Class				
No	Components	Small	Medium	Large	All Size	
1	Hired human labour	49199	28860	49465	42844	
2	Animal labour	0	0	0	0	
3	Machine labour	1246	1075	1602	1316	
4	Seed / seedlings	35499	33292	18122	28711	
5	Farmyard manure and chemical					
	fertilizers	15048	12437	11286	12902	

6	Plant protection	457	339	378	392
7	Land tax and irrigation cess	263	450	115	270
8	Repair and maintenance charges of implements, machinery and building	2148	1013	292	1138
9	Interest on working capital	10565	7982	8285	8947
10	Other expenses	4199	3818	1999	3307
11	Total Cost 'A' (1-10)	118624	89266	91544	99827
12	Interest on fixed capital	4668	1407	1360	2475
13	Cost 'B1' (11+12)	123292	90673	92904	102302
14	Interest on land value	632461	292136	294318	406084
15	Cost 'B' (13+14)	755753	382809	387222	508386
16	Imputed value of household labour	15797	11347	5654	10832
17	Cost 'C' (15+16)	771550	394156	392876	519218

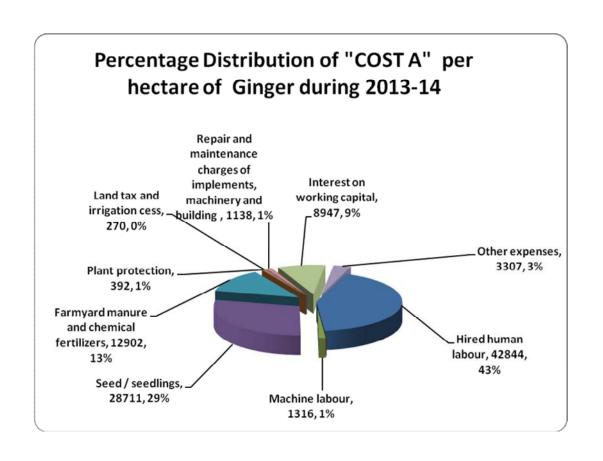


Table 46: Percentage distribution of hired human labour hours to total human labour hours

	Holding size class				
Sex	Small	Medium	Large	All Sizes	
Male	37.06	38.05	43.20	39.67	
Female	25.00	40.38	49.01	38.72	
Total	62.06	78.43	92.21	78.39	

Table 47: Cost of cultivation of Ginger per hectare(In Rs.) during 2011-12, 2012-13 & 2013-14

A comparative statement for 2011-12 , 2012-13 & 2013-14 for cost of cultivation of different concept is given below.

Concept	Voor	Holding Size class				
of cost	Year	Small	Medium	Large	All size	
	2011-12	99111	92676	85948	91914	
Cost 'A'	2012-13	94910	77782	116916	92885	
	2013-14	118624	89266	91544	99827	
	2011-12	618296	419936	259925	414900	
Cost 'B'	2012-13	699944	300282	222413	446629	
	2013-14	755753	382809	387222	508386	
	2011-12	628031	431378	266480	423966	
Cost 'C'	2012-13	713468	310303	226142	456767	
	2013-14	771550	394156	392876	519218	

# Value of Out put

Table 48: Value of Out put per hectare (In Rs.) of Ginger

Holding Size Class					
Small	Medium	Large	All Sizes		
221571	204699	150252	191234		

The per hectare value of output estimated from Ginger cultivation is seen as Rs.191234/and the cost of cultivation is Rs 99827 excluding interest on fixed capital,land value and household labour.

#### 2.8 Turmeric during 2013-14

Sample holdings selected for the cost of cultivation study of turmeric is 690 which distributed among the three holding size classes and total area within the sample holding was 49.50 hectares.

Table 49: Area and Number of holdings under Turmeric cultivation

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	609	27.70	55.96	0.05
Medium	78	18.80	37.98	0.24
Large	3	3.00	6.06	1.00
All size	690	49.50	100.00	0.07

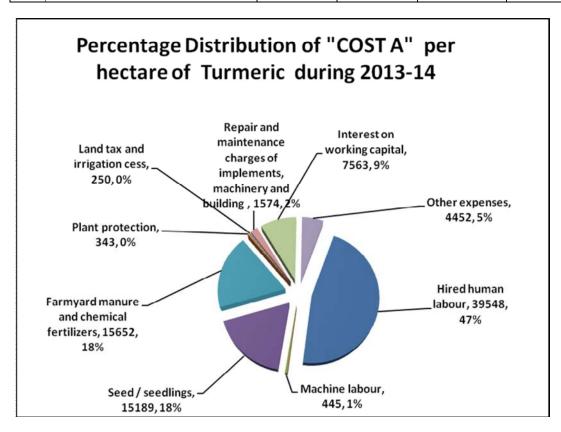
#### **Cost of cultivation**

The cash and other kind expenses incurred under Turmeric cultivation is estimated as Rs.85016/-per hectare. Out of this 47% cost is for hired human labour and 18% each for seed/seedlings and farmyard manure and fertilizer cost respectively.

Table 50: Cost of Cultivation per hectare (in Rs.) of Turmeric

Sl	Common on the	Holding size Class				
No	Components	Small	Medium	Large	All Size	
1	Hired human labour	35529	41079	67346	39548	
2	Animal labour	0	0	0	0	
3	Machine labour	170	821	663	445	
4	Seed / seedlings	14570	16029	15704	15189	
5	Farmyard manure and chemical fertilizers	13369	17491	25432	15652	

6	Plant protection	369	257	642	343
7	Land tax and irrigation Cess	255	242	248	250
8	8 Repair and maintenance charges of implements, machinery and building		563	439	1574
9	Interest on working capital	6775	8133	11340	7563
10	Other expenses	3738	5655	3609	4452
11	Total Cost 'A' (1-10)	77148	90270	125423	85016
12	Interest on fixed capital	3448	2667	341	2965
13	Cost'B1' (11+12)	80596	92937	125764	87981
14	Interest on land value	586379	279698	112496	442150
15	Cost 'B' (13+14)	666975	372635	238260	530131
16	Imputed value of household labour	9476	9032	23735	10173
17	Cost 'C' (15+16)	676451	381667	261995	540304



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

Table 51: Percentage of Hired human labour hours to the total human labour hours

Sex	Holding size class				
Sex	Small	Medium	Large	All Sizes	
Male	32.04	38.49	25.88	33.91	
Female	18.72	34.27	56.28	28.13	
Total	50.76	72.76	82.16	62.04	

Table 52: Cost of cultivation of Turmeric per hectare (In Rs.) during 2011-12, 2012-13 & 2013-14

A comparative statement for 2011-12, 2012-13 & 2013-14 for cost of cultivation of different concept is given below.

Concept	Voor		Holding Size class				
of cost	Year	Small	Medium	Large	All size		
	2011-12	79922	59243	74219	75384		
Cost 'A'	2012-13	81128	69873	87918	76825		
	2013-14	77148	90270	125423	85016		
	2011-12	358830	265884	248599	323040		
Cost 'B'	2012-13	487080	297425	191388	382154		
	2013-14	666975	372635	238260	530131		
	2011-12	366139	272676	253339	329794		
Cost 'C'	2012-13	496747	304916	209910	391584		
	2013-14	676451	381667	261995	540304		

## Output

The per hectare value of output received from turmeric cultivation is estimated as Rs 154764/- during the year 2013-14 and cost of cultivation is estimated as Rs 85016 excluding Cost B and C

Table 53: Value of Out put per hectare(In Rs.) of Turmeric

Holding Size Class					
Small Medium Large All Sizes					
161860 138291 191253 154764					

# 2.9 Pineapple during 2013-14

In the cost of cultivation study on pineapple 318 sample holdings were selected by covering area 299.90 hectares. Details of these holdings are given below.

Table 54: Area and Number of holdings selected under Pineapple cultivation`

Size class	No of selected holdings	Area under the crop in the sample (ha)	Percentage to Total area	Area per holding (ha)
Small	135	7.60	2.53	0.06
Medium	94	41.50	13.84	0.44
Large	89	250.80	83.63	2.82
All Size	318	299.90	100.00	0.94

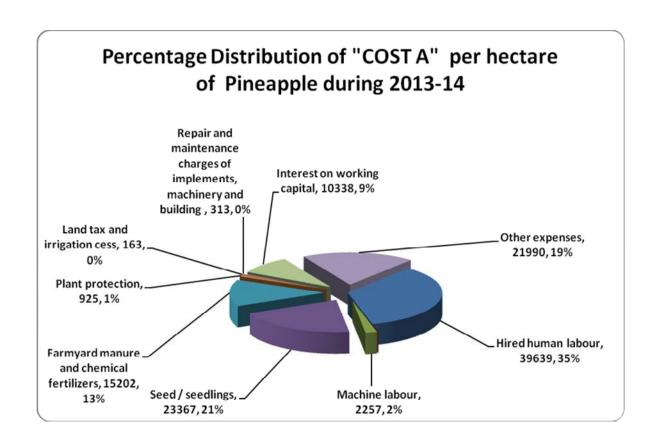
#### **Cost of Cultivation**

As in the case of other crops, cost of cultivation of pineapple is also calculated at different cost, concepts such as cost 'A', Cost 'B1', 'Cost 'B' and Cost 'C'. When Cost A is considered, cost of cultivation is Rs 114194/-

Table 55: The Cost of cultivation per hectare (in Rs.) of Pineapple

Sl	Commonwet	Holding size Class			
No	Components	Small	Medium	Large	All Size
1	Hired human labour	108968	40991	37182	39639
2	Animal labour	0	0	0	0
3	Machine labour	19160	2211	1720	2257
4	Seed / seedlings	235712	37425	14191	23367
5	Farmyard manure and chemical fertilizers	59356	27176	11788	15202
6	Plant protection	6249	1367	680	925
7	Land tax and irrigation Cess	529	144	154	163
8	Repair and maintenance charges of implements, machinery and building	2059	978	147	313
9	Interest on working capital	62266	14095	8041	10338
10	Other expenses	193214	31782	14848	21990
11	Total Cost 'A' (1-10)	687513	156169	88751	114194
12	Interest on fixed capital	3356	1567	187	464

13	Cost 'B1' (11+12)	690869	157736	88938	114658
14	Interest on land value	1630094	1032428	205000	358129
15	Cost 'B' (13+14)	2320963	1190164	293938	472787
16	Imputed value of household labour	70443	15504	4516	7812
17	Cost 'C' (15+16)	2391406	1205668	298454	480599



The hired human labour cost accounted as 35 percent where as farmyard manure and chemical fertilizers cost as 13 percent respectively of the total Cost 'A'. Seed/seedling cost constitutes to 21% of the total cost 'A'.

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

Table: 56 Percentage of hired human labour hours to the total human labour hours

Sex	Holding Size Class				
Sex	Small	Medium	Large	All Sizes	
Male	53.39	50.62	53.99	53.21	
Female	28.03	29.81	25.57	26.70	
Total	81.42	80.43	79.56	79.91	

# Value of out put

Table 57: Value of Output per hectare(In Rs.) of Pineapple

Holding Size Class					
Small Medium Large All Sizes					
265869 227465 102465 124204					

During 2013-14 per hectare value of output from pineapple cultivation is estimated as  $\mathbf{Rs.124204}$  /-

## 2.10.1 Bitter Gourd- Autumn during 2013-14

For this study details of holding selected and area coverage are given below. The data collected from 242 sample holdings by covering 27.90 hectares and the average area per holding is 0.12 hectare.

Table 58 - Area and number of holdings under Bitter gourd Autumn

Holding size class	No of selected holdings	Area under the crop in the sample (ha)	Percentage Area	Average Area per holding (ha)
Small	205	13.10	46.95	0.06
Medium	33	9.20	32.97	0.28
Large	4	5.60	20.07	1.40
Total	242	27.90	100.00	0.12

From the above table it can be seen that average area per holding was 0.12 hectare

## **Cost of cultivation**

When Cost A is considered about 47 percent of cost constitutes to hired human labour, Machine labour cost shares 1% and farmyard manure and chemical fertilizers accounts to 17%

Table 59- Cost of Cultivation per hectare(in Rs.) of Bitter Gourd (autumn)

G1			Holding	g size Class	
S1 No	Components	Small	Medium	Large	All Size
1	Hired human labour	40405	38231	31990	38013
2	Animal labour	0	0	0	0
3	Machine labour	410	1666	618	868
4	Seed / seedlings	3004	2990	1756	2751
5	Farmyard manure and chemical fertilizers	15143	14021	8952	13541
6	Plant protection	497	540	342	481
7	Land tax and irrigation cess	823	752	1090	852
8	Repair and maintenance charges of implements, machinery and building	3708	1800	1518	2642
9	Interest on working capital	7170	7509	6119	7073
10	Other expenses	12238	17637	17527	15078
11	Total cost 'A' (1-10)	83398	85146	69912	81299
12	Interest on fixed capital	1577	1270	248	1211
13	Cost 'B1' (11+12)	84975	86416	70160	82510
14	Interest on land value	423231	302174	206946	340157
15	Cost 'B' (13+14)	508206	388590	277106	422667
16	Imputed value of household labour	24676	23185	33105	25856
17	Cost 'C' (15+16)	532882	411775	310211	448523

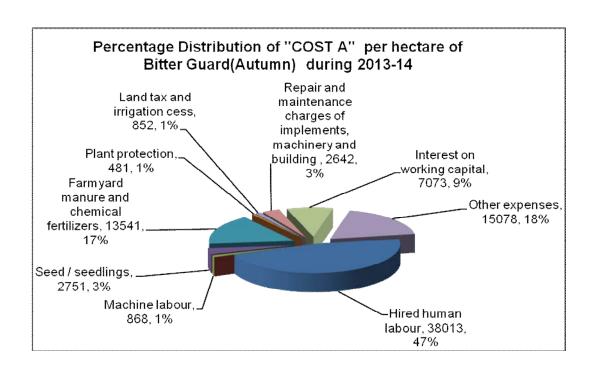


Table 60: Percentage of hired human labour hours to total human labour hours

Sex	Holding size class				
Sex	Small	Medium	Large	All Sizes	
Male	35.46	41.06	34.01	37.19	
Female	19.85	22.75	14.17	20.30	
Total	55.31	63.81	48.18	57.49	

In Bitter Gourd (autumn) cultivation 20.30% of total labour hours shares to female participation.

Table: 61 Value of product and by-product per hectare(in Rs.) of Bitter Gourd -Autumn 2013-14

Holding Size Class					
Small	Small Medium Large All Sizes				
163074	167660	183501	168651		

## 2.10.2 Bitter Gourd -Winter during 2013-14

During 2013-14 Cost of cultivation study on Bitter gourd(winter) season 334 sample holdings by covering 35.50 hectare selected and the average area per holding covers to .11 hectare.

Table 62 – Area and number of holdings under Bitter Gourd (winter)

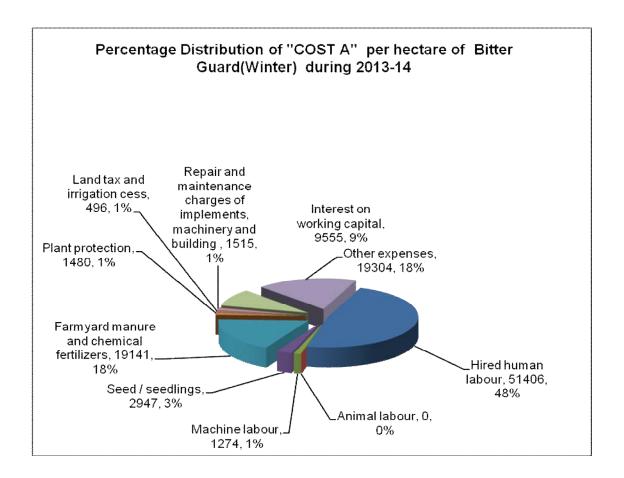
Holding size class	No of selected holdings	Area under the crop in the sample (ha)	Percentage Area	Area per holding (ha)
Small	270	14.90	41.97	0.06
Medium	63	19.80	55.77	0.31
Large	1	.80	2.25	0.80
Total	334	35.50	100.00	0.11

#### **Cost of Cultivation**

In Cost A, the major share of the cost component was hired human labour. It constitutes 48% per cent. Another two major items were machine labour and farmyard manure and chemical fertilizers. It shows to 1.18% and 18% respectively. Interest on working capital accounts was 9%. By considering the various cost component of Bitter gourd (winter) cultivation per hectare cost calculated as Rs.106427/-

 $Table\ 63-Cost\ of\ cultivation\ per\ hectare (in\ Rs.)\ of\ Bitter\ Gourd\ (winter)$ 

Sl	Commonanta		Holding	size Class	
No	Components	Small	Medium	Large	All Size
1	Hired human labour	49253	48262	170808	51406
2	Animal labour	0	0	0	0
3	Machine labour	644	509	2718	616
4	Seed / seedlings	3225	2524	8154	2947
5	Farmyard manure and chemical fertilizers	20159	17412	42625	19141
6	Plant protection	1863	1164	1977	1480
7	Land tax and irrigation Cess	682	372	1483	529
8	Repair and maintenance charges of implements, machinery and building	22.40	0.62	1225	1515
9	Interest on working capital	2249	963	1235	1515
10	Other expenses	9565	8741	26661	9489
	•	20504	17535	40327	19304
11	Total Cost 'A' (1-10)	108144	97482	295988	106427
12	Interest on fixed capital	2025	519	3472	1226
13	Cost 'B1' (11+12)	110169	98001	299460	107653
14	Interest on land value	429635	296011	247100	351761
15	Cost 'B' (13+14)	539804	394012	546560	459414
16	Imputed value of household labour	22711	14696	11428	18032
17	Cost 'C' (15+16)	562515	408708	557988	477446



Sex wise work participation in hired human labours for Bitter gourd(winter) cultivation 22% of work shared by Female whereas percentage share to male workers is 38.98.

Table 64 – Percentage of hired human labour hours to total human labour hours

C		Holding s	size class	
Sex	Small	Medium	Large	All Sizes
Male	32.20	44.40	72.12	38.98
Female	21.22	23.04	20.68	22.00
Total	53.42	67.44	92.80	60.98

## Output

Table: 65 - Value of Product and Byproduct per hectare(in Rs)of Bitter Gourd (Winter) 2013-14

Holding Size Class				
Small Medium Large All Sizes				
163055	138930	135907	149125	

## 2.10.3 Bitter Gourd - Summer during 2013-14

For the cost of cultivation study on Bitter gourd(summer) during 2013-14 the total number of sample holdings selected was 256. The details of these holdings are presented below:

Table 66 : Area and number of holdings under Bitter Gourd-(Summer)

Holding size class	No of selected holdings	Area under the crop in the sample (ha)	Percentage	Area per holding (ha)
Small	229	11.90	60.10	0.05
Medium	27	7.90	39.90	0.29
Large	0	0	0	0
All Size	256	19.80	100.00	0.08

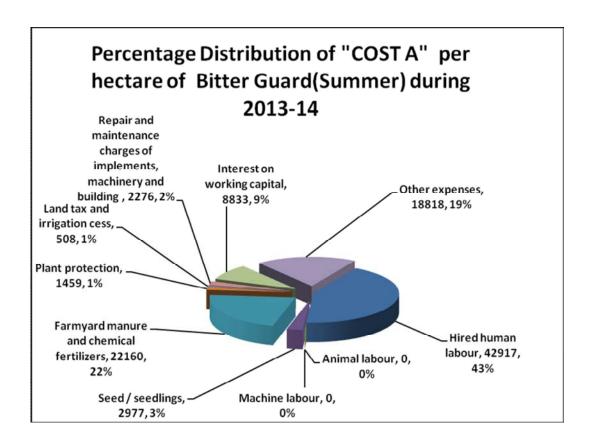
The total area under cultivation in the selected sample holdings covers 19.80 hectares and the average size of a holding is 0.08 hectare.

#### **Cost of Cultivation**

Cost of cultivation of Bitter gourd(summer) per hectare is estimated as Rs. 99948/- when cost 'A' is considered. Component wise holding size class details are presented below:

Table 67: Cost of Cultivation per hectare (in Rs.) of Bitter Gourd (summer)

Sl	Commonants		Holding	size Class	
No	Components	Small	Medium	Large	All Size
1	Hired human labour	40117	47191	0	42917
2	Animal labour	0	0	0	0
3	Machine labour	0	0	0	0
4	Seed / seedlings	3249	2564	0	2977
5	Farmyard manure and chemical fertilizers	22239	22041	0	22160
6	Plant protection	1351	1623	0	1459
7	Land tax and irrigation Cess	606	359	0	508
8	Repair and maintenance charges of implements, machinery and building	2748	1554	0	2276
9	Interest on working capital	8553	9260	0	8833
10	Other expenses	18578	19183	0	18818
11	Total Cost 'A' (1-10)	97441	103775	0	99948
12	Interest on fixed capital	3528	1105	0	2569
13	Cost 'B1' (11+12)	100969	104880	0	102517
14	Interest on land value	404013	196907	0	329255
15	Cost 'B' (13+14)	504982	301787	0	431772
16	Imputed value of household labour	24384	19270	0	22359
17	Cost 'C' (15+16)	529366	321057	0	454131



In Bitter gourd (summer) cultivation male labour participation accounted as 34.99 % of the total labour hours. Details are given below:

Table 68: Percentage of hired human labour hours to total human labour hours

G	Holding size class			
Sex	Small	Medium	Large	All Sizes
Male				
	31.56	41.28	0	34.98
Female				
	22.59	27.79	0	24.43
Total				
	54.15	69.07	0	59.41

Table 69: Value of Product and by product per hectare(in Rs) of Bitter Gourd (Summer) during 2013-14

Holding Size Class				
Small Medium Large All Sizes				
147036	155874	0	150534	

# **2.11.1 Cowpea- Autumn during 2013-14**

Sample of holding selected and area coverage for the study was 251 holdings by covering 32.50 hectares and the average area per holding was .13 hectare.

Table 70 - Area and number of holdings under Cowpea Autumn

Holding size class	No of selected holdings	Area under the crop in the sample (ha)	Percentage Area	Average Area per holding (ha)
Small	197	13.20	40.62	0.07
Medium	49	14.90	45.85	0.30
Large	5	4.40	13.54	0.88
Total	251	32.50	100.00	0.13

## **Cost of cultivation**

When Cost A is considered about 44 percent of cost constitutes to hired human labour, Machine labour cost shares 1% and farmyard manure and chemical fertilizers accounts to 23%.

Table 71- Cost of Cultivation per hectare (in Rs.) of Cowpea (autumn)

Sl	Commonanto		Holding	size Class	
No	Components	Small	Medium	Large	All Size
1	Hired human labour	67555	46647	40448	54451
2	Animal labour	0	0	0	0
3	Machine labour	504	1096	0	705
4	Seed / seedlings	3241	3078	1855	2982
5	Farmyard manure and chemical fertilizers	40932	18394	25511	28646
6	Plant protection	1915	2088	1162	1893
7	Land tax and irrigation cess	523	232	337	366
8	Repair and maintenance charges of implements, machinery and building	6538	1065	183	3207
9	Interest on working capital	13495	9423	8500	10981
10	Other expenses	20798	22928	16021	21128
11	Total cost 'A' (1-10)	155501	104951	94017	124359
12	Interest on fixed capital	3774	1464	423	2279
13	Cost 'B1' (11+12)	159275	106415	94440	126638
14	Interest on land value	529309	376425	98615	402486
15	Cost 'B' (13+14)	688584	482840	193055	529124
16	Imputed value of household labour	34195	23779	33759	29409
17	Cost 'C' (15+16)	722779	506619	226814	558533

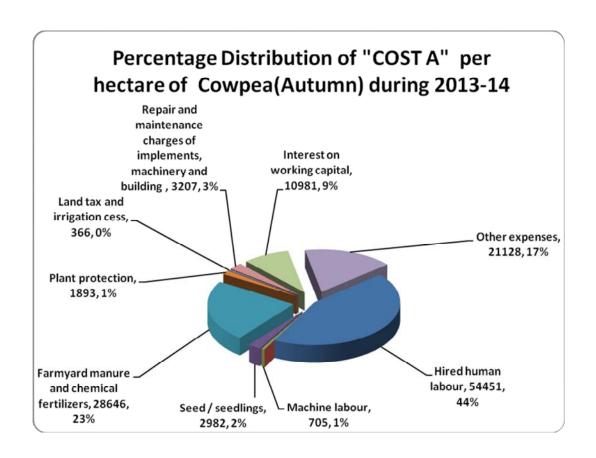


Table 72: Percentage of hired human labour hours to total human labour hours

Sex		Holding	size class	
	Small	Medium	Large	All Sizes
Male	38.59	43.59	42.58	41.21
Female	18.79	21.12	19.53	19.62
Total	58.38	64.70	62.12	60.83

In Cowpea(autumn) cultivation 41.21% of total labour hours goes to males.

Table: 6 Value of product and by-product per hectare (in Rs.) of Cowpea-Autumn 2013-14

Holding Size Class						
Small	Small Medium Large All Sizes					
155312	157332	172572	158530			

59

## **2.11.2** Cowpea -Winter during 2013-14

During 2013-14 Cost of cultivation study on Cowpea(winter) was conducted in 348 holdings by covering 42.70 hectare of land. Details of these holdings are given below:

Table 74 - Area and number of holdings under Cowpea winter

Holding size class	No of selected holdings	Area under the crop in the sample (ha)	Percentage Area	Area per holding (ha)
Small	278	20.60	48.24	.07
Medium	67	19.70	46.14	.29
Large	3	2.40	5.62	.80
Total	348	42.70	100.00	.12

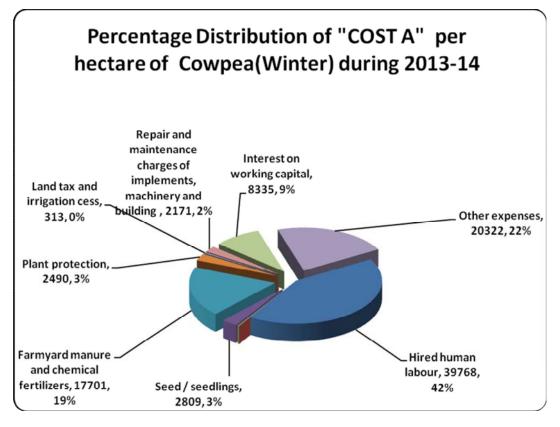
For the study on Cowpea(winter) cultivation during 2013-14, an area of 42.70 hectares covered. The average size of the holding was 0.12 hectares.

#### **Cost of Cultivation**

In Cost A, the major share of the cost component was hired human labour. It constitutes 42% per cent. Another two major items were machine labour and farmyard manure and chemical fertilizers which accounted 0.27% and 19% respectively. Interest on working capital was 9%. By considering the various cost component of Cowpea(winter) cultivation per hectare cost calculated as Rs.94165/-

Table 75- Cost of cultivation per hectare(in Rs.) of Cowpea (winter)

Sl	Commonanto		Holding	size Class	
No	Components	Small	Medium	Large	All Size
1	Hired human labour	39500	40105	39336	39768
2	Animal labour	0	0	0	0
3	Machine labour	114	439	0	256
4	Seed / seedlings	2918	2738	2455	2809
5	Farmyard manure and chemical fertilizers	16732	18499	19600	17701
6	Plant protection	1434	3578	2778	2490
7	Land tax and irrigation Cess	355	258	393	313
8	Repair and maintenance charges of implements, machinery and building	3309	1107	254	2171
9	Interest on working capital		1197		2171
10	Other expenses	8184	8603	7456	8335
11	Total Cost 'A' (1-10)	21140	20667	10391	20322
12	Interest on fixed capital	93686	96084	82663	94165
	•	5022	3519	1150	4118
13	Cost 'B1' (11+12)	98708	99603	83813	98283
14	Interest on land value	393839	357642	108413	361305
15	Cost 'B' (13+14)	492547	457245	192226	459588
16	Imputed value of household labour	25269	24369	23074	24734
17	Cost 'C' (15+16)	517816	481614	215300	484322



Sex wise work participation in hired human labours for Cowpea(winter) cultivation reveals that 23.93% of work shared by Female whereas 34.97% shared by male workers.

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

Table 76 – Percentage of hired human labour hours to total human labour hours

Sex	Holding size class				
Sex	Small	Medium	Large	All Sizes	
Male	32.47	39.89	28.74	34.97	
Female	22.78	26.29	20.04	23.93	
Total	55.25	66.18	48.78	58.90	

## Output

Table: 77 - Value of Product and Byproduct per hectare(in Rs)of Cowpea -Winter 2013-14

Holding Size Class					
Small	Small Medium Large All Sizes				
167608 133173 128819 149680					

## 2.11.3 Cowpea - Summer (Punja) during 2013-14

For the cost of cultivation study on Cowpea(summer) during 2013-14 the total number of holdings selected was 360. The details of these holdings are presented below:

Table 78: Area and number of holdings under Cowpea -Summer

Holding size class	No of selected holdings	Area under the crop in the sample (ha)	Percentage	Area per holding (ha)
Small	300	17.90	51.00	0.06
Medium	57	14.40	41.02	0.25
Large	3	2.80	7.98	0.93
All Size	360	35.10	100.00	0.10

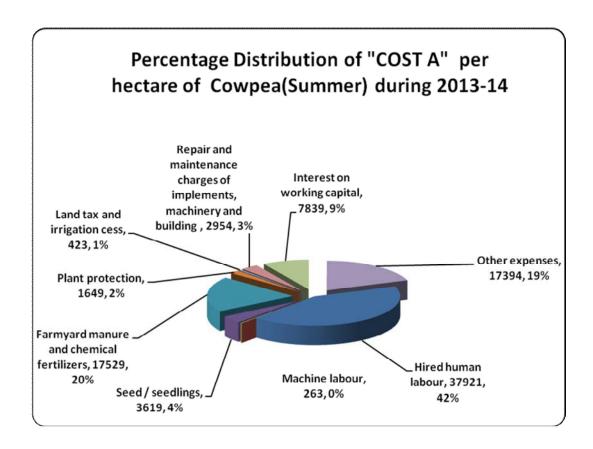
The total area under cultivation in the selected sample holdings covers to 35.10 hectares and the average size of a holding is 0.10 hectare.

#### **Cost of Cultivation**

Cost of cultivation of Cowpea (summer) per hectare is estimated as Rs. **89607**/- when cost 'A' is considered. Cost incurred for hired human labour is 42% of the total cost and farmyard manure and chemical fertilizer is 20%.

Table 79: Cost of Cultivation per hectare(in Rs.) of Cowpea (summer)

Sl	Commonto		Holding	size Class	
No	Components	Small	Medium	Large	All Size
1	Hired human labour	37548	39170	33764	37921
2	Animal labour	22	12	0	16
3	Machine labour	88	530	0	263
4	Seed / seedlings	4127	3076	3159	3619
5	Farmyard manure and chemical fertilizers	17203	19574	8867	17529
6	Plant protection	1605	1493	2753	1649
7	Land tax and irrigation Cess	492	405	56	423
8	Repair and maintenance charges of implements, machinery and building	4568	1486	113	2954
9	Interest on working capital	7752	8101	7025	7839
10	Other expenses	16930	17153	21710	17394
11	Total Cost 'A' (1-10)	90335	91000	77447	89607
12	Interest on fixed capital	3214	1451	861	2306
13	Cost 'B1' (11+12)	93549	92451	78308	91913
14	Interest on land value	428768	215528	164498	320463
15	Cost 'B' (13+14)	522317	307979	242806	412376
16	Imputed value of household labour	18050	14618	7907	15849
17	Cost 'C' (15+16)	540367	322597	350713	428225



In Cowpea summer cultivation female labour participation accounted as 20.77 % of the total labour hours. Details are given below:

Table 80: Percentage of hired human labour hours to total human labour hours

Sar		Holding size class				
Sex	Small	Medium	Large	All Sizes		
Male						
	28.25	28.25 45.38 24.20				
Female						
	18.08	25.98	15.26	20.77		
Total						
	46.33	71.36	39.46	54.98		

Table 81: Value of Product and by product per hectare(in Rs) of Cowpea Summer during 2013-14

Holding Size Class					
Small Medium Large All Sizes					
155019 146555 135414 150010					

## **2.12 Cardamom during 2013-14**

Cardamom is cultivated widely in Idukki, Palakkad and Wayanad districts of the state.

Table. 82 Area and Number of holdings under Cardamom cultivation

Holding size class	No of selected holdings	Area under the crop in the sample (ha)	Percentage	Area per holding (ha)
Small	36	4.20	11.54	.12
Medium	52	15.70	43.13	.30
Large	17	16.50	45.33	.97
All size	105	36.40	100.00	.35

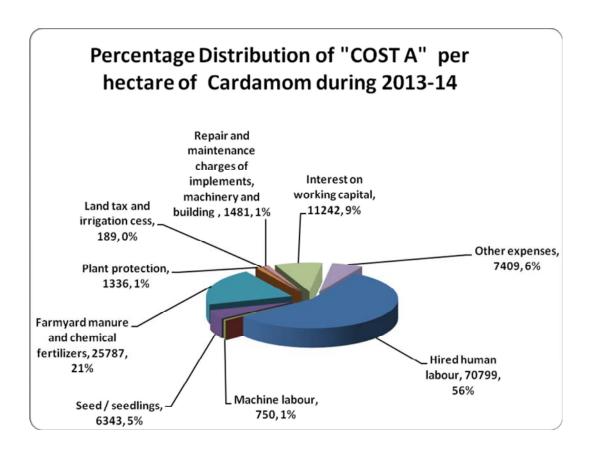
For the study 105 sample holdings were selected and the total area of crop in the selected area was 36.40 hectare. The average size per holding was 0.35 hectare.

#### **Cost of Cultivation**

The different cost components of Cardamom cultivation is given below: Per hectare cost is estimated as Rs 125336/- excluding interest on fixed capital, interest on land value and inputed value of household labour.

Table 83: Cost of Cultivation per hectare (in Rs.) of Cardamom

Sl	Commonto		Holding	size Class	
No	Components	Small	Medium	Large	All Size
1	Hired human labour	55000	63347	81061	70799
2	Animal labour	0	0	0	0
3	Machine labour	462	290	1263	750
4	Seed / seedlings	8891	8989	3156	6343
5	Farmyard manure and chemical fertilizers	33439	26621	23000	25787
6	Plant protection	1480	1711	941	1336
7	Land tax and irrigation Cess	329	177	164	189
8	Repair and maintenance charges of implements, machinery and building	4634	1031	1093	1481
9	Interest on working capital	10635	11274	11371	11242
10	Other expenses	7078	10777	4284	7409
11	Total Cost 'A' (1-10)	121948	125217	126333	125336
12	Interest on fixed capital	5131	2569	1912	2574
13	Cost 'B1' (11+12)	127079	127786	128245	127910
14	Interest on land value	425728	450218	182000	326157
15	Cost 'B' (13+14)	552807	578004	310245	454067
16	Imputed value of household labour	33622	14566	13611	16376
17	Cost 'C' (15+16)	586429	592570	323856	470443



When Cost A is considering, 56% comes under hired human labour and 21% in Farmyard manure and chemical fertilizers.

The following table illustrates the work participation of cardamom cultivation share of females in the total labour hours are 49.23%

Table 26: Percentage of hired human labour hours to total human labour hours

Corr	Holding size class					
Sex	Small	Medium	Large	All Sizes		
Male	22.76	26.25	30.51	28.03		
Female	40.14	50.32	50.30	49.23		
Total	30.84	76.57	80.81	77.27		

## Value of Out put

#### Table 85: Value of Output per hectare (in Rs) of Cardamom

The estimated value of output per hectare is Rs.164752 /-

Holding Size Class					
Small Medium Large All Sizes					
251869	181594	126021	164752		

#### A1.1 District wise Area and number of holding under Autumn Paddy during 2013-14

S1 No	District	No of selected holdings	Area under the crop in the sample (ha)	Percentage Area	Average Area per holding (ha)
1	Thiruvananthapuram	60.00	36.50	7.56	0.61
2	Kollam	75.00	32.50	6.73	0.43
3	Pathanamthitta	22.00	6.10	1.26	0.28
4	Alappuzha	75.00	115.10	23.84	1.53
5	Kottayam	45.00	45.70	9.46	1.02
6	Eranakulam	105.00	46.60	9.65	0.44
7	Idukki	30.00	6.70	1.39	0.22
8	Thrissur	54.00	40.00	8.28	0.74
9	Palakkad	75.00	74.80	15.49	1.00
10	Wayanad	0.00	0.00	0.00	0.00
11	Malappuram	59.00	31.80	6.59	0.54
12	Kozhikkode	45.00	10.30	2.13	0.23
13	Kannur	45.00	21.20	4.39	0.47
14	Kasaragod	30.00	15.60	3.23	0.52
	State	720.00	482.90	100.00	0.67

## A1.2 District wise Area and number of holding under Winter Paddy during 2013-14

Sl No	District	No of selected holdings	Area under the crop in the sample (ha)	Percentage Area	Average Area per holding (ha)
1	Thiruvananthapuram	47	16	2.27	0.34
2	Kollam	75	49.5	7.01	0.66
3	Pathanamthitta	55	28.2	4.00	0.51
4	Alappuzha	90	116.1	16.45	1.29
5	Kottayam	68	47.6	6.75	0.70
6	Eranakulam	90	59.1	8.37	0.66
7	Idukki	45	13.4	1.90	0.30
8	Thrissur	80	108.2	15.33	1.35
9	Palakkad	75	98.2	13.92	1.31
10	Wayanad	45	26.3	3.73	0.58
11	Malappuram	60	95	13.46	1.58
12	Kozhikkode	45	17	2.41	0.38
13	Kannur	45	15.5	2.20	0.34
14	Kasaragod	30	15.6	2.21	0.52
	State	850.00	705.7	100.00	0.83

#### A1.3 District wise Area and number of holding under SummerPaddy during 2013-14

Average Area Area under the Sl No of selected Percentage District crop in the per holding No holdings Area sample (ha) (ha) 1 Thiruvananthapuram 52 20.2 2.98 0.39 2 Kollam 0.21 17 3.6 0.53 3 3.01 Pathanamthitta 48 144.5 21.33 4 Alappuzha 1.83 75 136.9 20.20 5 Kottayam 55 44.7 0.81 6.60 81 32 0.40 6 Eranakulam 4.72 7 Idukki 45 11.7 1.73 0.26 62 120.5 1.94 8 Thrissur 17.78 0.99 9 Palakkad 57 56.2 8.29 10 Wayanad 45 18.1 2.67 0.40 45 1.26 11 Malappuram 56.8 8.38 12 Kozhikkode 45 14.7 0.33 2.17 13 Kannur 30 5.5 0.81 0.18 30 12.2 0.41 14 Kasaragod 1.80 State 687.00 677.60 0.99 100.00

## A1.4 District wise Area and number of holding under Coconut during 2013-14

S1 No	District	No of selected holdings	Area under the crop in the sample (ha)	Percentage Area	Average Area per holding (ha)
`1	Thiruvananthapuram	80	33.5	6.26	0.42
2	Kollam	100	35.9	6.71	0.36
3	Pathanamthitta	100	30.5	5.7	0.31
4	Alappuzha	120	63.2	11.81	0.53
5	Kottayam	100	32.8	6.13	0.33
6	Eranakulam	140	46.3	8.65	0.33
7	Idukki	80	17.4	3.25	0.22
8	Thrissur	100	49.3	9.21	0.49
9	Palakkad	100	68.6	12.82	0.69
10	Wayanad	60	21.1	3.94	0.35
11	Malappuram	73	53.6	10.02	0.73
12	Kozhikkode	60	32.2	6.02	0.54
13	Kannur	60	22.9	4.28	0.38
14	Kasaragod	40	27.8	5.2	0.70
	State	1213.00	535.10	100.00	0.44

## A1.5 District wise Area and number of holding under Arecanut during 2013-14

S1 No	District	No of selected holdings	Area under the crop in the sample (ha)	Percentage Area	Average Area per holding (ha)
1	Thiruvananthapuram	80	16.9	7.18	0.21
2	Kollam	100	4.6	1.95	0.05
3	Pathanamthitta	100	7.5	3.18	0.08
4	Alappuzha	120	6.8	2.89	0.06
5	Kottayam	100	5.2	2.21	0.05
6	Eranakulam	140	15.5	6.58	0.11
7	Idukki	80	11.4	4.84	0.14
8	Thrissur	100	21.1	8.96	0.21
9	Palakkad	100	29.4	12.48	0.29
10	Wayanad	60	30	12.74	0.50
11	Malappuram	80	33.6	14.27	0.42
12	Kozhikkode	55	7.4	3.14	0.13
13	Kannur	60	20.8	8.83	0.35
14	Kasaragod	40	25.3	10.74	0.63
	State	1215.00	235.50	100.00	0.19

## A1.6 District wise Area and number of holding under Tapioca during 2013-14

S1 No	District	No of selected holdings	Area under the crop in the sample (ha)	Percentage Area	Average Area per holding (ha)
1	Thiruvananthapuram	60	12.4	6.62	0.21
2	Kollam	198	10.4	5.55	0.05
3	Pathanamthitta	75	17	9.07	0.23
4	Alappuzha	90	8.9	4.75	0.10
5	Kottayam	75	16	8.54	0.21
6	Eranakulam	90	37.9	20.22	0.42
7	Idukki	60	11.1	5.92	0.19
8	Thrissur	62	10.3	5.50	0.17
9	Palakkad	75	20.1	10.73	0.27
10	Wayanad	45	7.3	3.90	0.16
11	Malappuram	60	19.5	10.41	0.33
12	Kozhikkode	45	6.4	3.42	0.14
13	Kannur	37	4.2	2.24	0.11
14	Kasaragod	31	5.9	3.15	0.19
	State	1003.00	187.40	100.00	0.19

## A1.7 District wise Area and number of holding under Banana during 2013-14

S1 No	District	No of selected holdings	Area under the crop in the sample (ha)	Percentage Area	Average Area per holding (ha)
1	Thiruvananthapuram	60	18	7.76	0.30
2	Kollam	75	16.4	7.07	0.22
3	Pathanamthitta	75	14.7	6.34	0.20
4	Alappuzha	57	7.4	3.19	0.13
5	Kottayam	75	17.9	7.72	0.24
6	Eranakulam	90	41.2	17.77	0.46
7	Idukki	60	13	5.61	0.22
8	Thrissur	72	19.7	8.50	0.27
9	Palakkad	75	28.7	12.38	0.38
10	Wayanad	45	12.9	5.56	0.29
11	Malappuram	60	21.1	9.10	0.35
12	Kozhikkode	45	11.3	4.87	0.25
13	Kannur	38	4.5	1.94	0.12
14	Kasaragod	30	5.1	2.20	0.17
	State	857.00	231.90	100.00	0.27

#### A1.8 District wise Area and number of holding under Pepper during 2013-14

S1 No	District	No of selected holdings	Area under the crop in the sample (ha)	Percentage Area	Average Area per holding (ha)
1	Thiruvananthapuram	60	10.3	9.89	0.17
2	Kollam	75	4	3.84	0.05
3	Pathanamthitta	75	6	5.76	0.08
4	Alappuzha	81	2.8	2.69	0.03
5	Kottayam	75	10.2	9.80	0.14
6	Eranakulam	105	8.2	7.88	0.08
7	Idukki	60	16.7	16.04	0.28
8	Thrissur	68	3.9	3.75	0.06
9	Palakkad	75	10.3	9.89	0.14
10	Wayanad	45	14.1	13.54	0.31
11	Malappuram	60	7.9	7.59	0.13
12	Kozhikkode	48	1.6	1.54	0.03
13	Kannur	71	4.5	4.32	0.06
14	Kasaragod	30	3.6	3.46	0.12
	State	928.00	104.10	100.00	0.11

## A1.9 District wise Area and number of holding under Ginger`during 2013-14

S1 No	District	No of selected holdings	Area under the crop in the sample (ha)	Percentage Area	Average Area per holding (ha)
1	Thiruvananthapuram	55	2.6	2.96	0.05
2	Kollam	75	3.3	3.76	0.04
3	Pathanamthitta	75	4.1	4.67	0.05
4	Alappuzha	37	1.1	1.25	0.03
5	Kottayam	72	2.2	2.51	0.03
6	Eranakulam	73	9.8	11.16	0.13
7	Idukki	60	6.3	7.18	0.11
8	Thrissur	43	8.2	9.34	0.19
9	Palakkad	68	29.8	33.94	0.44
10	Wayanad	44	9	10.25	0.20
11	Malappuram	45	3.1	3.53	0.07
12	Kozhikkode	20	1	1.14	0.05
13	Kannur	23	1.1	1.25	0.05
14	Kasaragod	23	6.2	7.06	0.27
	State	713.00	87.80	100.00	0.12

## A1.10 District wise Area and number of holding under Turmeric during 2013-14

Sl No	District	No of selected holdings	Area under the crop in the sample (ha)	Percentage Area	Average Area per holding (ha)
1	Thiruvananthapuram	46	2.5	5.05	0.05
2	Kollam	74	2.9	5.86	0.04
3	Pathanamthitta	9	0.3	0.61	0.03
4	Alappuzha	29	0.9	1.82	0.03
5	Kottayam	75	2.5	5.05	0.03
6	Eranakulam	82	10.3	20.81	0.13
7	Idukki	60	3.9	7.88	0.07
8	Thrissur	57	3.7	7.47	0.06
9	Palakkad	72	10.6	21.41	0.15
10	Wayanad	45	3.70	7.47	0.08
11	Malappuram	55	4	8.08	0.07
12	Kozhikkode	38	1.8	3.64	0.05
13	Kannur	24	0.6	1.21	0.03
14	Kasaragod	24	1.8	3.64	0.08
	State	690.00	49.50	100.00	0.07

## A1.11 District wise Area and number of holding under Pineapple during 2013-14

S1 No	District	No of selected holdings	Area under the crop in the sample (ha)	Percentage Area	Average Area per holding (ha)
1	Thiruvananthapuram	6	2.4	0.80	0.40
2	Kollam	21	6.6	2.20	0.31
3	Pathanamthitta	18	2.4	0.80	0.13
4	Alappuzha	10	0.3	0.10	0.03
5	Kottayam	75	34	11.34	0.45
6	Eranakulam	64	102.3	34.11	1.60
7	Idukki	32	22.3	7.44	0.70
8	Thrissur	23	47	15.67	2.04
9	Palakkad	31	31.8	10.60	1.03
10	Wayanad	1	1.00	0.33	1.00
11	Malappuram	0	0	0.00	0.00
12	Kozhikkode	6	0.6	0.20	0.10
13	Kannur	24	40.8	13.60	1.70
14	Kasaragod	7	8.4	2.80	1.20
	State	318.00	299.90	100.00	0.94

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# A1.12 District wise Area and number of holding under Bitter Gourd (Autumn) during 2013-14

Sl No	District	No of selected holdings	Area under the crop in the sample (ha)	Percentage Area	Average Area per holding (ha)
1	Thiruvananthapuram	33	5.2	18.64	0.16
2	Kollam	50	2.4	8.60	0.05
3	Pathanamthitta	0	0	0.00	0.00
4	Alappuzha	15	1	3.58	0.07
5	Kottayam	50	2.2	7.89	0.04
6	Eranakulam	9	1	3.58	0.11
7	Idukki	0	0	0.00	0.00
8	Thrissur	24	8.1	29.03	0.34
9	Palakkad	44	6.8	24.37	0.15
10	Wayanad	0	0.00	0.00	0.00
11	Malappuram	3	0.2	0.72	0.07
12	Kozhikkode	0	0	0.00	0.00
13	Kannur	0	0	0.00	0
14	Kasaragod	14	1	3.58	0.07
	State	242	27.90	100.00	.12

 $A1.13\ District$  wise Area and number of holding under Bitter Gourd (Winter) during 2013-14

Sl No	District	No of selected holdings	Area under the crop in the sample (ha)	Percentage Area	Average Area per holding (ha)
1	Thiruvananthapuram	35	3.8	10.70	0.11
2	Kollam	50	2.3	6.48	0.05
3	Pathanamthitta	20	1.6	4.51	0.08
4	Alappuzha	32	1.7	4.79	0.05
5	Kottayam	50	3.2	9.01	0.06
6	Eranakulam	34	4.5	12.68	0.13
7	Idukki	10	2.2	6.20	0.22
8	Thrissur	19	4.8	13.52	0.25
9	Palakkad	38	6	16.90	0.16
10	Wayanad	30	4.70	13.24	0.16
11	Malappuram	6	0.5	1.41	0.08
12	Kozhikkode	0	0	0.00	0.00
13	Kannur	0	0	0.00	0.00
14	Kasaragod	10	0.2	0.56	0.02
	State	334.00	35.50	100.00	0.11

## ${\bf A1.14~District~wise~Area~and~number~of~holding~under~Bitter~Gourd~(Summer)~during~2013-14}$

S1 No	District	No of selected holdings	Area under the crop in the sample (ha)	Percentage Area	Average Area per holding (ha)
1	Thiruvananthapuram	31	3.6	18.18	0.12
2	Kollam	25	1.3	6.57	0.05
3	Pathanamthitta	31	1.1	5.56	0.04
4	Alappuzha	20	1.2	6.06	0.06
5	Kottayam	37	1.7	8.59	0.05
6	Eranakulam	6	0.8	4.04	0.13
7	Idukki	20	1.4	7.07	0.07
8	Thrissur	15	2.7	13.64	0.18
9	Palakkad	30	1.9	9.60	0.06
10	Wayanad	15	2.40	12.12	0.16
11	Malappuram	0	0	0.00	0.00
12	Kozhikkode	6	0.5	2.53	0.08
13	Kannur	8	0.1	0.51	0.01
14	Kasaragod	12	1.1	5.56	0.09
	State	256.00	19.80	100.00	0.08

## A1.15 District wise Area and number of holding under Cowpea (Autumn) during 2013-14

Sl No	District	No of selected holdings	Area under the crop in the sample (ha)	Percentage Area	Average Area per holding (ha)
1	Thiruvananthapuram	34	6.6	19.08	0.19
2	Kollam	40	2.9	8.38	0.07
3	Pathanamthitta	0	0	0.00	0.00
4	Alappuzha	31	2.9	8.38	0.09
5	Kottayam	50	2.7	7.80	0.05
6	Eranakulam	8	0.7	2.02	0.09
7	Idukki	0	0	0.00	0.00
8	Thrissur	23	6.6	19.08	0.29
9	Palakkad	40	5.4	15.61	0.14
10	Wayanad	0	0.00	0.00	0.00
11	Malappuram	20	4.5	13.01	0.23
12	Kozhikkode	0	0	0.00	0.00
13	Kannur	0	0	0.00	0
14	Kasaragod	5	0.2	0.58	0.04
	State	251	32.50	100.00	.13

#### A1.16 District wise Area and number of holding under Cowpea (Winter) during 2013-14

Sl No	District	No of selected holdings	Area under the crop in the sample (ha)	Percentage Area	Average Area per holding (ha)
1	Thiruvananthapuram	35	4.9	11.48	0.14
2	Kollam	50	3.4	7.96	0.07
3	Pathanamthitta	29	3.2	7.49	0.11
4	Alappuzha	57	5.6	13.11	0.10
5	Kottayam	42	5.5	12.88	0.13
6	Eranakulam	24	4.8	11.24	0.20
7	Idukki	10	1.7	3.98	0.17
8	Thrissur	25	5.6	13.11	0.22
9	Palakkad	36	4.9	11.48	0.14
10	Wayanad	0	0.00	0.00	0.00
11	Malappuram	20	2.7	6.32	0.14
12	Kozhikkode	0	0	0.00	0.00
13	Kannur	0	0	0.00	0.00
14	Kasaragod	20	0.4	0.94	0.02
	State	348.00	42.70	100.00	0.12

## A1.17 District wise Area and number of holding under Cowpea (Summer) during 2013-14

Sl No	District	No of selected holdings	Area under the crop in the sample (ha)	Percentage Area	Average Area per holding (ha)
1	Thiruvananthapuram	37	4.8	13.68	0.13
2	Kollam	28	2.4	6.84	0.09
3	Pathanamthitta	47	5	14.25	0.11
4	Alappuzha	30	1.8	5.13	0.06
5	Kottayam	50	3.9	11.11	0.08
6	Eranakulam	1	0.1	0.28	0.10
7	Idukki	20	1.4	3.99	0.07
8	Thrissur	20	2.8	7.98	0.14
9	Palakkad	30	2.1	5.98	0.07
10	Wayanad	35	4.40	12.54	0.13
11	Malappuram	18	2.5	7.12	0.14
12	Kozhikkode	5	0.5	1.42	0.10
13	Kannur	19	2	5.70	0.11
14	Kasaragod	20	1.4	3.99	0.07
	State	360.00	35.10	100.00	0.10

## A1.18 District wise Area and number of holding under Cardamom during 2013-14

Sl No	District	No of selected holdings	Area under the crop in the sample (ha)	Percentage Area	Average Area per holding (ha)
1	Idukki	60	20.5	56.32	0.34
2	Palakkad	10	5.70	15.66	0.57
3	Wayanad	35	10.20	28.02	0.29
	State	105.00	36.40	100.00	0.35

## A2.1 District wise Cost of Cultivation per hectare (in Rs) of Autumn paddy during 2013-14

Sl No	Components	Thiruvana nthapura m	Kollam	Pathanamt hitta	Alappuzha	Kottayam
1	Hired human labour	40096	56252	32041	23025	21049
2	Animal labour	98	0	0	137	0
3	Machine labour	6801	7555	8429	5108	9761
4	Seed / seedlings	1757	2389	3043	3014	2306
5	Farmyard manure and chemical fertilizers	5690	8071	6605	5953	8033
6	Plant protection	506	385	556	171	209
7	Land tax and irrigation cess	109	79	107	159	44
8	Repair and maintenance charges of implements, machinery and building	365	858	294	123	134
9	Interest on working capital	3121	3983	2763	2127	2199
10	Other expenses	7476	5002	4591	5123	2616
11	Total cost 'A' (1-10)	66019	84574	58429	44940	46351
12	Interest on fixed capital	1378	1877	543	391	1444
13	Cost 'B1' (11+12)	67397	86451	58972	45331	47795
14	Interest on land value	91082	80450	72604	46870	65330
15	Cost 'B' (13+14)	158479	166901	131576	92201	113125
16	Imputed value of household labour	2458	4973	9581	4727	5332
17	Cost 'C' (15+16)	160937	171874	141157	96928	118457

#### A2.1 District wise Cost of Cultivation per hectare (in Rs.) of Autumn paddy during 2013-14

Eranakulam Idukki Thrissur Palakkad Wayanad Sl No Components Hired human labour Animal labour Machine labour Seed / seedlings Farmyard manure and chemical fertilizers Plant protection Land tax and irrigation cess Repair and maintenance charges of implements, machinery and building Interest on working capital Other expenses Total cost 'A' (1-10) Interest on fixed capital Cost 'B1' (11+12) Interest on land value Cost 'B' (13+14) Imputed value of household labour Cost 'C' (15+16) 

## A2.1 District wise Cost of Cultivation per hectare (in Rs.) of Autumn paddy during 2013-14

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Sl No	Components	Malappur am	Kozhikkode	Kannur	Kasaragod	State
1	Hired human labour	27632	34542	41141	31577	30689
2	Animal labour	0	589	14	0	56
3	Machine labour	4886	6292	3901	2220	6505
4	Seed / seedlings	1816	1997	1963	1907	2201
5	Farmyard manure and chemical fertilizers	4714	6856	5468	7449	5895
6	Plant protection	596	48	0	249	286
7	Land tax and irrigation cess	367	68	123	0	125
8	Repair and maintenance charges of implements, machinery and building	178	478	419	516	287
9	Interest on working capital	2173	2624	2750	2311	2511
10	Other expenses	3825	2149	2516	2811	4587
11	Total cost 'A' (1-10)	46187	55643	58295	49040	53142
12	Interest on fixed capital	1483	261	1376	1532	1431
13	Cost 'B1' (11+12)	47670	55904	59671	50572	54573
14	Interest on land value	75831	66688	78347	94268	68309
15	Cost 'B' (13+14)	123501	122592	138018	144840	122882
16	Imputed value of household labour	4713	9367	2589	5171	4771
17	Cost 'C' (15+16)	128214	131959	140607	150011	127653

## A2.2 District wise Cost of Cultivation per hectare (in Rs.) of Winter paddy during 2013-14

Sl No	Components	Thiruvana nthapura m	Kollam	Pathanamt hitta	Alappuzha	Kottayam
1	Hired human labour	49438	44180	21523	21141	20970
2	Animal labour	0	0	0	51	660
3	Machine labour	5193	7340	5975	6581	8849
4	Seed / seedlings	1812	2153	3019	3503	2444
5	Farmyard manure and chemical fertilizers	4664	9155	7864	8072	3834
6	Plant protection	223	492	1336	485	411
7	Land tax and irrigation cess	31	155	86	852	92
8	Repair and maintenance charges of implements, machinery and building	361	684	169	194	311
9	Interest on working capital	3421	3325	2306	2381	1957
10	Other expenses	7092	3180	6399	7784	1977
11	Total cost 'A' (1-10)	72235	70664	48677	51044	41505
12	Interest on fixed capital	681	1838	223	350	873
13	Cost 'B1' (11+12)	72916	72502	48900	51394	42378
14	Interest on land value	85466	81048	70090	57716	71104
15	Cost 'B' (13+14)	158382	153550	118990	109110	113482
16	Imputed value of household labour	5804	3561	5841	5633	6622
17	Cost 'C' (15+16)	164186	157111	124831	114743	120104

## A2.2 District wise Cost of Cultivation per hectare (in Rs.) of Winter paddy during 2013-14

Sl No	Components	Eranakulam	Idukki	Thrissur	Palakkad	Wayanad
1	Hired human labour	20205	23933	21953	20144	39297
2	Animal labour	635	0	0	0	189
3	Machine labour	3868	2741	9340	8641	10751
4	Seed / seedlings	1340	2367	2178	1340	2660
5	Farmyard manure and chemical fertilizers	4410	3237	7742	6294	6249
6	Plant protection	145	125	594	428	104
7	Land tax and irrigation cess	31	23	81	136	257
8	Repair and maintenance charges of implements, machinery and building	680	875	477	187	667
9	Interest on working capital	1803	1758	2391	1986	3238
10	Other expenses	5464	2757	6015	2879	5505
11	Total cost 'A' (1-10)	38581	37816	50771	42035	68917
12	Interest on fixed capital	756	1100	471	726	264
13	Cost 'B1' (11+12)	39337	38916	51242	42761	69181
14	Interest on land value	83421	77603	95184	85515	57724
15	Cost 'B' (13+14)	122758	116519	146426	128276	126905
16	Imputed value of household labour	4883	7031	3372	3150	4524
17	Cost 'C' (15+16)	127641	123550	149798	131426	131429

## A2.2 District wise Cost of Cultivation per hectare (in Rs.) of Winter paddy during 2013-14

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Sl No	Components	Malappur am	Kozhikkode	Kannur	Kasaragod	State
1	Hired human labour	26555	23505	36282	24843	25246
2	Animal labour	397	408	161	0	180
3	Machine labour	7656	10568	3681	5674	7452
4	Seed / seedlings	2321	1970	1638	1601	2262
5	Farmyard manure and chemical fertilizers	4503	7131	7361	7634	6483
6	Plant protection	712	83	199	342	479
7	Land tax and irrigation cess	232	106	125	91	244
8	Repair and maintenance charges of implements, machinery and building	456	1310	321	1699	452
9	Interest on working capital	2387	2300	2615	2108	2356
10	Other expenses	5604	2339	2985	2072	5012
11	Total cost 'A' (1-10)	50823	49720	55368	46064	50166
12	Interest on fixed capital	257	1023	710	1039	635
13	Cost 'B1' (11+12)	51080	50743	56078	47103	50801
14	Interest on land value	72855	73583	81951	61073	76542
15	Cost 'B' (13+14)	123935	124326	138029	108176	127343
16	Imputed value of household labour	4285	9630	4260	6017	4692
17	Cost 'C' (15+16)	128220	133956	142289	114193	132035

## A2.3 District wise Cost of Cultivation per hectare (in Rs.) of Summer paddy during 2013-14

Sl No	Components	Thiruvana nthapura m	Kollam	Pathanamt hitta	Alappuzha	Kottayam
1	Hired human labour	49971	38219	24346	27214	24361
2	Animal labour	0	0	0	124	0
3	Machine labour	6714	7413	2528	7072	2416
4	Seed / seedlings	1638	2271	2842	4427	2285
5	Farmyard manure and chemical fertilizers	5996	6408	6701	8787	4813
6	Plant protection	306	100	368	516	1821
7	Land tax and irrigation cess	131	197	105	104	266
8	Repair and maintenance charges of implements, machinery and building	588	1329	283	225	411
9	Interest on working capital	3537	3049	2219	2584	1997
10	Other expenses	6113	6562	7588	3540	4244
11	Total cost 'A' (1-10)	74994	65548	46980	54593	42614
12	Interest on fixed capital	378	426	168	593	250
13	Cost 'B1' (11+12)	75372	65974	47148	55186	42864
14	Interest on land value	98795	108508	81717	71252	87040
15	Cost 'B' (13+14)	174167	174482	128865	126438	129904
16	Imputed value of household labour	9604	9891	4756	5648	5957
17	Cost 'C' (15+16)	183771	184373	133621	132086	135861

#### A2.3 District wise Cost of Cultivation per hectare (in Rs.) of Summer paddy during 2013-14

	_	Eranakulam	Idukki	Thrissur	Palakkad	Wayanad
Sl No	Components					
1	Hired human labour	28813	33197	34058	31997	36095
2	Animal labour	0	0	0	0	0
3	Machine labour	6322	5158	1038	7675	4029
4	Seed / seedlings	1475	2066	2450	1279	4343
5	Farmyard manure and chemical fertilizers	5363	2747	6917	5306	4167
6	Plant protection	510	91	215	420	181
7	Land tax and irrigation cess	171	433	323	102	371
8	Repair and maintenance charges of implements, machinery and building	828	643	684	309	1442
9	Interest on working capital	2278	2254	2380	2472	2626
10	Other expenses	3072	1816	2920	2754	3697
11	Total cost 'A' (1-10)	48832	48405	50985	52314	56951
12	Interest on fixed capital	899	1179	571	1147	1797
13	Cost 'B1' (11+12)	49731	49584	51556	53461	58748
14	Interest on land value	100826	79092	92287	95525	85649
15	Cost 'B' (13+14)	150557	128676	143843	148986	144397
16	Imputed value of household labour	8559	10403	5974	3074	11872
17	Cost 'C' (15+16)	159116	139079	149817	152060	156269

#### A2.3 District wise Cost of Cultivation per hectare (in Rs.) of Summer paddy during 2013-14

Sl No	Components	Malappur am	Kozhikkode	Kannur	Kasaragod	State
1	Hired human labour	25573	23246	30179	30061	29040
2	Animal labour	0	0	0	0	25
3	Machine labour	4353	7362	3634	0	4239
4	Seed / seedlings	2021	1958	1872	2277	2743
5	Farmyard manure and chemical fertilizers	7992	6437	5917	5198	6766
6	Plant protection	1661	217	0	1347	584
7	Land tax and irrigation cess	345	312	215	190	198
8	Repair and maintenance charges of implements, machinery and building	1224	268	0	1340	527
9	Interest on working capital	2215	2104	2194	1983	2379
10	Other expenses	2706	2862	2281	776	4173
11	Total cost 'A' (1-10)	48090	44766	46292	43172	50674
12	Interest on fixed capital	503	1581	1175	1921	615
13	Cost 'B1' (11+12)	48593	46347	47467	45093	51289
14	Interest on land value	109736	87931	94618	72512	87025
15	Cost 'B' (13+14)	158329	134278	142085	117605	138314
16	Imputed value of household labour	4511	9405	9567	15036	6041
17	Cost 'C' (15+16)	162840	143683	151652	132641	144355

#### A2.4 District wise Cost of Cultivation per hectare (in Rs.) of Coconut during 2013-14

Sl No	Components	Thiruvana nthapura m	Kollam	Pathanamt hitta	Alappuzha	Kottayam
1	Hired human labour	31897	41202	22957	29096	37262
2	Animal labour	0	0	0	0	0
3	Machine labour	0	0	0	0	0
4	Seed / seedlings	89	0	825	359	2524
5	Farmyard manure and chemical fertilizers	3260	9580	6001	8045	13840
6	Plant protection	0	358	222	22	591
7	Land tax and irrigation cess	193	349	144	193	224
8	Repair and maintenance charges of implements, machinery and building	185	803	328	200	274
9	Interest on working capital	3717	5314	3232	4060	5636
10	Other expenses	1928	2003	2315	3077	2146
11	Total cost 'A' (1-10)	41269	59609	36024	45052	62497
12	Interest on fixed capital	1292	4062	743	271	232
13	Cost 'B1' (11+12)	42561	63671	36767	45323	62729
14	Interest on land value	718206	673927	657316	483334	553917
15	Cost 'B' (13+14)	760767	737598	694083	528657	616646
16	Imputed value of household labour	7817	7083	4626	7400	5604
17	Cost 'C' (15+16)	768584	744681	698709	536057	622250

## A2.4 District wise Cost of Cultivation per hectare (in Rs.) of Coconut during 2013-14

Sl No	Components	Eranakulam	Idukki	Thrissur	Palakkad	Wayanad
1	Hired human labour	25992	27500	35236	27830	22170
2	Animal labour	0	0	0	0	0
3	Machine labour	0	0	182	332	0
4	Seed / seedlings	453	116	0	0	0
5	Farmyard manure and chemical fertilizers	9762	6133	14838	12365	12065
6	Plant protection	0	0	101	0	0
7	Land tax and irrigation cess	122	0	190	116	0
8	Repair and maintenance charges of implements, machinery and building	1179	1070	276	691	814
9	Interest on working capital	4016	3667	5211	4154	3720
10	Other expenses	3957	2916	1753	1015	2964
11	Total cost 'A' (1-10)	45481	41402	57787	46503	41733
12	Interest on fixed capital	2303	1598	5932	2948	274
13	Cost 'B1' (11+12)	47784	43000	63719	49451	42007
14	Interest on land value	866431	569729	606946	518781	492877
15	Cost 'B' (13+14)	914215	612729	670665	568232	534884
16	Imputed value of household labour	8175	9212	5747	7728	707
17	Cost 'C' (15+16)	922390	621941	676412	575960	535591

#### A2.4 District wise Cost of Cultivation per hectare (in Rs.) of Coconut during 2013-14

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Sl No	Components	Malappur am	Kozhikko de	Kannur	Kasaragod	State
1	Hired human labour	28769	23271	29422	33412	29900
2	Animal labour	0	0	0	0	0
3	Machine labour	1108	0	0	2261	288
4	Seed / seedlings	0	0	521	2325	437
5	Farmyard manure and chemical fertilizers	13913	10720	16954	18460	11183
6	Plant protection	0	0	0	0	85
7	Land tax and irrigation cess	299	80	180	438	188
8	Repair and maintenance charges of implements, machinery and building	467	252	0	1345	540
9	Interest on working capital	4563	3467	5108	5858	4414
10	Other expenses	1835	676	4187	2119	2242
11	Total cost 'A' (1-10)	50954	38466	56372	66218	49277
12	Interest on fixed capital	2907	1458	2612	4422	2348
13	Cost 'B1' (11+12)	53861	39924	58984	70640	51625
14	Interest on land value	562986	672212	589850	433953	620809
15	Cost 'B' (13+14)	616847	712136	648834	504593	672434
16	Imputed value of household labour	6446	6477	1208	9972	6605
17	Cost 'C' (15+16)	623293	718613	650042	514565	679039

## A2.5 District wise Cost of Cultivation per hectare (in Rs.) of Arecanut during 2013-14

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Sl No	Components	Thiruvana nthapura m	Kollam	Pathanamt hitta	Alappuzha	Kottayam
1	Hired human labour	29015	28394	30975	30598	32744
2	Animal labour	0	0	0	0	0
3	Machine labour	0	0	0	0	0
4	Seed / seedlings	0	0	158	2825	2627
5	Farmyard manure and chemical fertilizers	1197	9314	4139	7918	8377
6	Plant protection	0	816	0	0	400
7	Land tax and irrigation cess	130	780	134	177	806
8	Repair and maintenance charges of implements, machinery and building	464	2859	1065	334	1433
9	Interest on working capital	3121	3990	3700	4285	4818
10	Other expenses	996	1372	1730	1505	4028
11	Total cost 'A' (1-10)	34923	47525	41901	47642	55233
12	Interest on fixed capital	2320	4225	973	1789	702
13	Cost 'B1' (11+12)	37243	51750	42874	49431	55935
14	Interest on land value	566909	562319	399140	415741	533164
15	Cost 'B' (13+14)	604152	614069	442014	465172	589099
16	Imputed value of household labour	5679	8262	9844	6176	7833
17	Cost 'C' (15+16)	609831	622331	451858	471348	596932

#### A2.5 District wise Cost of Cultivation per hectare (in Rs.) of Arecanut during 2013-14

Eranakulam Idukki Thrissur Palakkad Wayanad Sl No Components Hired human labour Animal labour Machine labour Seed / seedlings Farmyard manure and chemical fertilizers Plant protection Land tax and irrigation cess Repair and maintenance charges of implements, machinery and building Interest on working capital Other expenses **Total cost 'A' (1-10)** Interest on fixed capital Cost 'B1' (11+12) Interest on land value Cost 'B' (13+14) Imputed value of household labour Cost 'C' (15+16) 

#### A2.5 District wise Cost of Cultivation per hectare (in Rs.) of Arecanut during 2013-14

Malappur Kozhikkode Kasaragod Kannur State am Sl No Components Hired human labour Animal labour Machine labour Seed / seedlings Farmyard manure and chemical fertilizers Plant protection Land tax and irrigation cess Repair and maintenance charges of implements, machinery and building Interest on working capital Other expenses Total cost 'A' (1-10) Interest on fixed capital Cost 'B1' (11+12) Interest on land value Cost 'B' (13+14) Imputed value of household labour -17 Cost 'C' (15+16) 

## A2.6 District wise Cost of Cultivation per hectare (in Rs.) of Tapioca during 2013-14

Sl No	Components	Thiruvana nthapura m	Kollam	Pathanamt hitta	Alappuzha	Kottayam
1	Hired human labour	40615	49130	46072	55042	49030
2	Animal labour	0	0	0	0	0
3	Machine labour	0	0	0	1796	0
4	Seed / seedlings	2256	1881	2184	4783	2146
5	Farmyard manure and chemical fertilizers	8116	10748	5217	8935	9099
6	Plant protection	60	0	0	0	105
7	Land tax and irrigation cess	125	170	138	220	119
8	Repair and maintenance charges of implements, machinery and building	339	1925	572	587	391
9	Interest on working capital	5901	6544	5689	7819	6460
10	Other expenses	7958	3684	3413	7633	4223
11	Total cost 'A' (1-10)	65370	74082	63285	86815	71573
12	Interest on fixed capital	447	914	330	1332	290
13	Cost 'B1' (11+12)	65817	74996	63615	88147	71863
14	Interest on land value	429165	410472	328500	400653	308194
15	Cost 'B' (13+14)	494982	485468	392115	488800	380057
16	Imputed value of household labour	13077	14766	16540	16270	21873
17	Cost 'C' (15+16)	508059	500234	408655	505070	401930

#### A2.6 District wise Cost of Cultivation per hectare (in Rs.) of Tapioca during 2013-14

Sl No	Components	Eranakulam	Idukki	Thrissur	Palakkad	Wayanad
1	Hired human labour	27799	27567	37161	40087	43584
2	Animal labour	0	0	0	0	0
3	Machine labour	2652	0	0	4708	0
4	Seed / seedlings	1251	1532	6170	5256	4449
5	Farmyard manure and chemical fertilizers	7132	7911	7529	6287	2713
6	Plant protection	41	0	194	196	0
7	Land tax and irrigation cess	472	0	358	146	307
8	Repair and maintenance charges of implements, machinery and building	275	1471	246	214	2102
9	Interest on working capital	4611	3860	5525	5955	5211
10	Other expenses	7235	1585	4193	3020	1364
11	Total cost 'A' (1-10)	51468	43926	61376	65869	59730
12	Interest on fixed capital	435	1676	1714	785	675
13	Cost 'B1' (11+12)	51903	45602	63090	66654	60405
14	Interest on land value	490571	311610	430012	420263	381857
15	Cost 'B' (13+14)	542474	357212	493102	486917	442262
16	Imputed value of household labour	14513	14908	13307	23533	15493
17	Cost 'C' (15+16)	556987	372120	506409	510450	457755

#### A2.6 District wise Cost of Cultivation per hectare (in Rs.) of Tapioca during 2013-14

Sl No	Components	Malappur am	Kozhikkode	Kannur	Kasaragod	State
1	Hired human labour	40315	43787	45223	33244	39458
2	Animal labour	0	0	0	0	0
3	Machine labour	0	0	0	0	1121
4	Seed / seedlings	4852	2066	7596	5444	3202
5	Farmyard manure and chemical fertilizers	8687	5520	8813	2077	7267
6	Plant protection	45	151	0	79	65
7	Land tax and irrigation cess	460	107	196	249	257
8	Repair and maintenance charges of implements, machinery and building	186	326	0	902	562
9	Interest on working capital	6303	5387	6463	4475	5626
10	Other expenses	9126	2348	3000	3902	5145
11	Total cost 'A' (1-10)	69974	59692	71291	50372	62703
12	Interest on fixed capital	261	1321	1320	994	724
13	Cost 'B1' (11+12)	70235	61013	72611	51366	63427
14	Interest on land value	331612	479947	283895	292656	393901
15	Cost 'B' (13+14)	401847	540960	356506	344022	457328
16	Imputed value of household labour	17786	15611	14235	19477	16817
17	Cost 'C' (15+16)	419633	556571	370741	363499	474145

### A2.7 District wise Cost of Cultivation per hectare (in Rs.) of Banana during 2013-14

Sl No	Components	Thiruvana nthapura m	Kollam	Pathanamt hitta	Alappuzha	Kottayam
1	Hired human labour	64813	75469	63815	55496	59531
2	Animal labour	0	0	0	0	0
3	Machine labour	0	0	0	477	0
4	Seed / seedlings	19573	25167	21168	28210	24244
5	Farmyard manure and chemical fertilizers	33232	23722	28556	26467	27586
6	Plant protection	333	385	1422	0	1432
7	Land tax and irrigation cess	118	163	54	767	301
8	Repair and maintenance charges of implements, machinery and building	495	6677	599	222	270
9	Interest on working capital	13339	13357	12307	11987	11794
10	Other expenses	15434	8826	8108	9219	5143
11	Total cost 'A' (1-10)	147337	153766	136029	132845	130301
12	Interest on fixed capital	470	755	403	1642	207
13	Cost 'B1' (11+12)	147807	154521	136432	134487	130508
14	Interest on land value	664403	602580	574570	427601	456483
15	Cost 'B' (13+14)	812210	757101	711002	562088	586991
16	Imputed value of household labour	36867	17815	21434	28123	32410
17	Cost 'C' (15+16)	849077	774916	732436	590211	619401

#### A 2.7 District wise Cost of Cultivation per hectare (in Rs.) of Banana during 2013-14

Wayanad Eranakulam Idukki Thrissur Palakkad Sl No Components Hired human labour Animal labour Machine labour Seed / seedlings Farmyard manure and chemical fertilizers Plant protection Land tax and irrigation cess Repair and maintenance charges of implements, machinery and building Interest on working capital Other expenses **Total cost 'A' (1-10)** Interest on fixed capital Cost 'B1' (11+12) Interest on land value Cost 'B' (13+14) Imputed value of household labour Cost 'C' (15+16) 

#### A 2.7 District wise Cost of Cultivation per hectare (in Rs.) of Banana during 2013-14

Sl No	Components	Malappur am	Kozhikko de	Kannur	Kasaragod	State
1	Hired human labour	55007	53693	51334	55229	61531
2	Animal labour	0	0	0	0	0
3	Machine labour	704	0	0	557	228
4	Seed / seedlings	22397	18920	25027	17547	22500
5	Farmyard manure and chemical fertilizers	25523	21236	13628	26645	23371
6	Plant protection	549	380	513	0	671
7	Land tax and irrigation cess	577	46	481	1595	316
8	Repair and maintenance charges of implements, machinery and building	262	170	0	3591	1112
9	Interest on working capital	11196	10056	10764	10537	11684
10	Other expenses	7782	6333	17137	5388	8543
11	Total cost 'A' (1-10)	123997	110834	118884	121089	129956
12	Interest on fixed capital	2019	801	1677	2534	1263
13	Cost 'B1' (11+12)	126016	111635	120561	123623	131219
14	Interest on land value	547361	404409	484038	461898	532426
15	Cost 'B' (13+14)	673377	516044	604599	585521	663645
16	Imputed value of household labour	32870	16650	16869	19064	24796
17	Cost 'C' (15+16)	706247	532694	621468	604585	688441

### A 2.8 District wise Cost of Cultivation per hectare (in Rs.) of Pepper during 2013-14

Sl No	Components	Thiruvana nthapura m	Kollam	Pathanamt hitta	Alappuzha	Kottayam
1	Hired human labour	50816	47150	38160	38876	45678
2	Animal labour	0	0	0	0	0
3	Machine labour	0	0	0	0	0
4	Seed / seedlings	23	0	144	767	254
5	Farmyard manure and chemical fertilizers	2193	9264	8518	7345	9863
6	Plant protection	0	100	0	304	876
7	Land tax and irrigation cess	172	1089	124	217	231
8	Repair and maintenance charges of implements, machinery and building	464	4115	676	0	665
9	Interest on working capital	5634	6440	5210	5288	5963
10	Other expenses	3307	7889	5279	5591	2961
11	Total cost 'A' (1-10)	62609	76047	58111	58388	66491
12	Interest on fixed capital	2473	3551	513	1855	338
13	Cost 'B1' (11+12)	65082	79598	58624	60243	66829
14	Interest on land value	745748	664306	575778	553423	563891
15	Cost 'B' (13+14)	810830	743904	634402	613666	630720
16	Imputed value of household labour	14788	18278	13778	15569	17894
17	Cost 'C' (15+16)	825618	762182	648180	629235	648614

#### A 2.8 District wise Cost of Cultivation per hectare (in Rs.) of Pepper during 2013-14

Wayanad Eranakulam Idukki Thrissur Palakkad Sl No Components Hired human labour Animal labour Machine labour Seed / seedlings Farmyard manure and chemical fertilizers Plant protection Land tax and irrigation cess Repair and maintenance charges of implements, machinery and building Interest on working capital Other expenses **Total cost 'A' (1-10)** Interest on fixed capital Cost 'B1' (11+12) Interest on land value Cost 'B' (13+14) Imputed value of household labour Cost 'C' (15+16) 

### A 2.8 District wise Cost of Cultivation per hectare (in Rs.) of Pepper during 2013-14

Sl No	Components	Malappur am	Kozhikko de	Kannur	Kasaragod	State
1	Hired human labour	37194	33877	45592	39078	40980
2	Animal labour	0	0	0	0	0
3	Machine labour	0	1935	0	402	45
4	Seed / seedlings	170	0	0	1333	297
5	Farmyard manure and chemical fertilizers	6189	9197	5863	8574	6640
6	Plant protection	818	0	0	0	309
7	Land tax and irrigation cess	616	844	106	317	267
8	Repair and maintenance charges of implements, machinery and building	501	618	0	3567	1158
9	Interest on working capital	4718	4894	5437	5342	5138
10	Other expenses	2809	3929	2914	4037	3113
11	Total cost 'A' (1-10)	53015	55294	59912	62650	57947
12	Interest on fixed capital	635	1171	3785	1978	1423
13	Cost 'B1' (11+12)	53650	56465	63697	64628	59370
14	Interest on land value	565411	454724	471361	453249	570208
15	Cost 'B' (13+14)	619061	511189	535058	517877	629578
16	Imputed value of household labour	18972	10628	19718	19565	17147
17	Cost 'C' (15+16)	638033	521817	554776	537442	646725

### A 2.9 District wise Cost of Cultivation per hectare (in Rs.) of Ginger during 2013-14

Sl No	Components	Thiruvana nthapura m	Kollam	Pathanamt hitta	Alappuzha	Kottayam
1	Hired human labour	51657	45642	38853	54108	38010
2	Animal labour	0	0	0	0	0
3	Machine labour	0	0	0	0	0
4	Seed / seedlings	42564	40806	37053	21512	39608
5	Farmyard manure and chemical fertilizers	14650	15415	10948	17299	16048
6	Plant protection	628	0	551	134	302
7	Land tax and irrigation cess	90	193	127	218	267
8	Repair and maintenance charges of implements, machinery and building	725	1415	1165	1088	2963
9	Interest on working capital	11410	11061	9140	9436	9722
10	Other expenses	4604	8748	3991	1305	3247
11	Total cost 'A' (1-10)	126328	123280	101828	105100	110167
12	Interest on fixed capital	1638	2034	1039	2175	2346
13	Cost 'B1' (11+12)	127966	125314	102867	107275	112513
14	Interest on land value	505671	465204	488718	322361	462821
15	Cost 'B' (13+14)	633637	590518	591585	429636	575334
16	Imputed value of household labour	12397	15544	11298	12307	10146
17	Cost 'C' (15+16)	646034	606062	602883	441943	585480

### A 2.9 District wise Cost of Cultivation per hectare (in Rs.) of Ginger during 2013-14

Sl No	Components	Eranakulam	Idukki	Thrissur	Palakkad	Wayanad
1	Hired human labour	38519	33194	43882	45850	43765
2	Animal labour	0	0	0	0	0
3	Machine labour	4280	0	0	2181	0
4	Seed / seedlings	38923	34932	21825	22847	21060
5	Farmyard manure and chemical fertilizers	14607	10521	12541	12437	11035
6	Plant protection	185	111	542	461	453
7	Land tax and irrigation cess	689	405	38	145	432
8	Repair and maintenance charges of implements, machinery and building	957	2628	1393	489	1917
9	Interest on working capital	10125	8204	8096	8650	7965
10	Other expenses	4735	3285	2169	2725	3333
11	Total cost 'A' (1-10)	113020	93280	90486	95785	89960
12	Interest on fixed capital	5699	3377	1415	1401	1935
13	Cost 'B1' (11+12)	118719	96657	91901	97186	91895
14	Interest on land value	537918	325473	492266	356313	318129
15	Cost 'B' (13+14)	656637	422130	584167	453499	410024
16	Imputed value of household labour	10002	13469	10953	10197	9713
17	Cost 'C' (15+16)	666639	435599	595120	463696	419737

### A 2.9 District wise Cost of Cultivation per hectare (in Rs.) of Ginger during 2013-14

Sl No	Components	Malappuram	Kozhikko de	Kannur	Kasaragod	State
`1	Hired human labour	50156	44524	41708	35781	42844
2	Animal labour	0	0	0	0	0
3	Machine labour	0	0	0	1533	1316
4	Seed / seedlings	23023	26357	33739	36419	28711
5	Farmyard manure and chemical fertilizers	16952	14810	17137	12202	12902
6	Plant protection	1524	229	0	0	392
7	Land tax and irrigation cess	811	55	209	142	270
8	Repair and maintenance charges of implements, machinery and building	1065	966	0	1166	1138
9	Interest on working capital	9443	9034	9789	8744	8947
10	Other expenses	2770	4420	5301	1507	3307
11	Total cost 'A' (1-10)	105744	100395	107883	97494	99827
12	Interest on fixed capital	4262	1752	1451	4840	2475
13	Cost 'B1' (11+12)	110006	102147	109334	102334	102302
14	Interest on land value	454349	351523	355781	392921	406084
15	Cost 'B' (13+14)	564355	453670	465115	495255	508386
16	Imputed value of household labour	11523	11266	10645	10027	10832
17	Cost 'C' (15+16)	575878	464936	475760	505282	519218

### A 2.10 District wise Cost of Cultivation per hectare (in Rs.) of Turmeric during 2013-14

Sl No	Components	Thiruvana nthapura m	Kollam	Pathanamt hitta	Alappuzha	Kottayam
1	Hired human labour	46587	43259	23557	47211	31248
2	Animal labour	0	0	0	0	0
3	Machine labour	0	0	0	0	0
4	Seed / seedlings	17713	14139	11751	16657	17090
5	Farmyard manure and chemical fertilizers	11572	13242	17637	16325	12502
6	Plant protection	577	439	686	0	343
7	Land tax and irrigation cess	495	366	206	144	221
8	Repair and maintenance charges of implements, machinery and building	498	3055	1922	506	1836
9	Interest on working capital	8351	7868	5830	8409	6383
10	Other expenses	7057	7601	4667	3899	2650
11	Total cost 'A' (1-10)	92850	89969	66256	93151	72273
12	Interest on fixed capital	1123	4756	1455	1868	1425
13	Cost 'B1' (11+12)	93973	94725	67711	95019	73698
14	Interest on land value	430363	546570	478495	443869	489704
15	Cost 'B' (13+14)	524336	641295	546206	538888	563402
16	Imputed value of household labour	13793	11492	12561	10266	9533
17	Cost 'C' (15+16)	538129	652787	558767	549154	572935

A 2.10 District wise Cost of Cultivation per hectare (in Rs.) of Turmeric during 2013-14

.

		Eranakulam	Idukki	Thrissur	Palakkad	Wayanad
Sl No	Components					
1	Hired human labour	31057	27684	46307	49461	45319
2	Animal labour	0	0	0	0	0
3	Machine labour	0	0	0	2005	0
4	Seed / seedlings	16926	14491	14698	14317	15565
5	Farmyard manure and chemical fertilizers	19287	10250	14759	15274	11537
6	Plant protection	181	368	686	377	394
7	Land tax and irrigation cess	190	394	178	124	229
8	Repair and maintenance charges of implements, machinery and building	938	3947	2150	628	3700
9	Interest on working capital	7357	5665	8084	8458	7662
10	Other expenses	6117	3853	4385	3145	3800
11	Total cost 'A' (1-10)	82053	66652	91247	93789	88206
12	Interest on fixed capital	5389	4767	740	2822	1035
13	Cost 'B1' (11+12)	87442	71419	91987	96611	89241
14	Interest on land value	559129	388939	467698	323271	373454
15	Cost 'B' (13+14)	646571	460358	559685	419882	462695
16	Imputed value of household labour	9911	10961	11961	8213	11733
17	Cost 'C' (15+16)	656482	471319	571646	428095	474428

### A 2.10 District wise Cost of Cultivation per hectare (in Rs.) of Turmeric during 2013-14

Sl No	Components	Malappuram	Kozhikko de	Kannur	Kasaragod	State
1	Hired human labour	39594	30100	39851	33905	39548
2	Animal labour	0	0	0	0	0
3	Machine labour	0	0	0	580	445
4	Seed / seedlings	11438	12058	15314	18870	15189
5	Farmyard manure and chemical fertilizers	20333	17495	11057	22012	15652
6	Plant protection	480	0	0	0	343
7	Land tax and irrigation cess	219	879	209	216	250
8	Repair and maintenance charges of implements, machinery and building	748	761	0	2405	1574
9	Interest on working capital	7480	6115	7142	8074	7563
10	Other expenses	2959	1495	5194	5374	4452
11	Total cost 'A' (1-10)	83251	68903	78767	91436	85016
12	Interest on fixed capital	605	1236	1541	4903	2965
13	Cost 'B1' (11+12)	83856	70139	80308	96339	87981
14	Interest on land value	490302	407742	414546	387699	442150
15	Cost 'B' (13+14)	574158	477881	494854	484038	530131
16	Imputed value of household labour	9267	10999	8924	9113	10173
17	Cost 'C' (15+16)	583425	488880	503778	493151	540304

#### A 2.11 District wise Cost of Cultivation per hectare (in Rs.) of Pineapple during 2013-14

Sl No	Components	Thiruvananth apuram	Kollam	Pathana mthitta	Alappuzha	Kottayam
1	Hired human labour	44338	34800	48379	40316	41388
2	Animal labour	0	0	0	0	0
3	Machine labour	5189	3289	0	0	0
4	Seed / seedlings	34108	28918	21106	24385	23511
5	Farmyard manure and chemical fertilizers	23886	20509	12355	26011	11202
6	Plant protection	0	291	801	0	1189
7	Land tax and irrigation cess	309	143	103	124	125
8	Repair and maintenance charges of implements, machinery and building	288	546	945	406	263
9	Interest on working capital	12391	10873	9796	10648	9974
10	Other expenses	16389	20921	15319	15769	22451
11	Total cost 'A' (1-10)	136898	120290	108804	117659	110103
12	Interest on fixed capital	325	801	477	813	522
13	Cost 'B1' (11+12)	137223	121091	109281	118472	110625
14	Interest on land value	533324	335551	350425	246287	340748
15	Cost 'B' (13+14)	670547	456642	459706	364759	451373
16	Imputed value of household labour	12063	12598	9502	10014	9809
17	Cost 'C' (15+16)	682610	469240	469208	374773	461182

#### A 2.11 District wise Cost of Cultivation per hectare (in Rs.) of Pineapple during 2013-14

Sl No	Components	Eranakulam	Idukki	Thrissu r	Palakkad	Wayanad
1	Hired human labour	38942	25113	60129	32045	45269
2	Animal labour	0	0	0	0	0
3	Machine labour	3988	0	0	0	0
4	Seed / seedlings	20554	24594	33366	21050	17791
5	Farmyard manure and chemical fertilizers	11006	28454	20402	10212	22536
`6	Plant protection	592	0	1434	1696	988
7	Land tax and irrigation cess	170	112	131	172	247
8	Repair and maintenance charges of implements, machinery and building	342	475	302	110	202
9	Interest on working capital	9263	10533	13955	9227	11426
10	Other expenses	17550	27173	24222	27262	27675
11	Total cost 'A' (1-10)	102407	116454	153941	101774	126134
12	Interest on fixed capital	243	991	308	580	504
13	Cost 'B1' (11+12)	102650	117445	154249	102354	126638
14	Interest on land value	416669	351716	369856	315866	247100
15	Cost 'B' (13+14)	519319	469161	524105	418220	373738
16	Imputed value of household labour	7638	9009	6694	7015	9093
17	Cost 'C' (15+16)	526957	478170	530799	425235	382831

#### A 2.11 District wise Cost of Cultivation per hectare (in Rs.) of Pineapple during 2013-14

Sl No	Components	Malappuram	Kozhikko de	Kannur	Kasaragod	State
1	Hired human labour	0	43875	33291	23557	39639
2	Animal labour	0	0	0	0	0
3	Machine labour	0	2712	5413	1611	2257
4	Seed / seedlings	0	21810	16290	34579	23367
5	Farmyard manure and chemical fertilizers	0	15481	16669	22562	15202
16	Plant protection	0	377	985	1171	925
7	Land tax and irrigation cess	0	398	195	317	163
8	Repair and maintenance charges of implements, machinery and building	0	392	315	218	313
9	Interest on working capital	0	10693	9601	10842	10338
10	Other expenses	0	22676	23363	24944	21990
11	Total cost 'A' (1-10)	0	118414	106122	119801	114194
12	Interest on fixed capital	0	550	722	421	464
13	Cost 'B1' (11+12)	0	118964	106844	120222	114658
14	Interest on land value	0	293808	244094	375334	358129
15	Cost 'B' (13+14)	0	412772	350938	495556	472787
16	Imputed value of household labour	0	7654	6589	8111	7812
17	Cost 'C' (15+16)	0	420426	357527	503667	480599

# A 2.12 District wise Cost of Cultivation per hectare (in Rs.) of $\,$ Bitter Gourd (Autumn) during 2013-14

Sl No	Components	Thiruvananth apuram	Kollam	Pathana mthitta	Alappuzha	Kottayam
1	Hired human labour	47341	47093	0	38513	39613
2	Animal labour	0	0	0	0	0
3	Machine labour	0	0	0	0	0
4	Seed / seedlings	2261	2666	0	2026	1741
5	Farmyard manure and chemical fertilizers	11695	19513	0	14743	19143
6	Plant protection	217	330	0	1006	363
7	Land tax and irrigation cess	424	429	0	1071	513
8	Repair and maintenance charges of implements, machinery and building	5287	2510	0	4298	3473
9	Interest on working capital	7984	8535	0	7292	7342
10	Other expenses	18328	15743	0	16634	12563
11	Total cost 'A' (1-10)	93537	96819	0	85583	84751
12	Interest on fixed capital	1338	1343	0	807	1632
13	Cost 'B1' (11+12)	94875	98162	0	86390	86383
14	Interest on land value	488705	427450	0	383542	379738
15	Cost 'B' (13+14)	583580	525612	0	469932	466121
16	Imputed value of household labour	27594	29737	0	26961	29344
17	Cost 'C' (15+16)	611174	555349	0	496893	495465

#### A 2.12 District wise Cost of Cultivation per hectare (in Rs.) of Bitter Gourd (Autumn) during 2013-14

Sl No	Components	Eranakulam	Idukki	Thrissu r	Palakkad	Wayanad
1	Hired human labour	38251	0	30072	37410	0
2	Animal labour	0	0	0	0	0
3	Machine labour	0	0	1242	2098	0
4	Seed / seedlings	2397	0	2940	3196	0
5	Farmyard manure and chemical fertilizers	18995	0	11417	11682	0
6	Plant protection	554	0	813	370	0
7	Land tax and irrigation cess	830	0	931	1275	0
8	Repair and maintenance charges of implements, machinery and building	2600	0	1835	1139	0
9	Interest on working capital	7572	0	6034	6898	0
10	Other expenses	15521	0	13859	14222	0
11	Total cost 'A' (1-10)	86720	0	69143	78290	0
12	Interest on fixed capital	1320	0	1075	847	0
13	Cost 'B1' (11+12)	88040	0	70218	79137	0
14	Interest on land value	492421	0	282893	243490	0
15	Cost 'B' (13+14)	580461	0	353111	322627	0
16	Imputed value of household labour	24819	0	27275	19852	0
17	Cost 'C' (15+16)	605280	0	380386	342479	0

### A 2.12 District wise Cost of Cultivation per hectare (in Rs.) of $\,$ Bitter Gourd (Autumn) during 2013-14

Sl No	Components	Malappuram	Kozhikko de	Kannur	Kasaragod	State
1	Hired human labour	30711	0	0	34496	38013
2	Animal labour	0	0	0	0	0
3	Machine labour	0	0	0	0	868
4	Seed / seedlings	2489	0	0	4307	2751
5	Farmyard manure and chemical fertilizers	16736	0	0	18488	13541
6	Plant protection	300	0	0	0	481
7	Land tax and irrigation cess	1589	0	0	916	852
8	Repair and maintenance charges of implements, machinery and building	1730	0	0	2725	2642
9	Interest on working capital	6552	0	0	7318	7073
10	Other expenses	15285	0	0	15892	15078
11	Total cost 'A' (1-10)	75392	0	0	84142	81299
12	Interest on fixed capital	2310	0	0	2805	1211
13	Cost 'B1' (11+12)	77702	0	0	86947	82510
14	Interest on land value	229274	0	0	235778	340157
15	Cost 'B' (13+14)	306976	0	0	322725	422667
16	Imputed value of household labour	25896	0	0	28844	25856
17	Cost 'C' (15+16)	332872	0	0	351569	448523

### A 2.13 District wise Cost of Cultivation per hectare (in Rs.) of $\,$ Bitter Gourd (Winter) during 2013-14

Sl No	Components	Thiruvananth apuram	Kollam	Pathana mthitta	Alappuzha	Kottayam
1	Hired human labour	59296	61987	34210	61790	64503
2	Animal labour	0	0	0	0	0
3	Machine labour	0	3252	0	0	0
4	Seed / seedlings	2071	2507	4181	1972	1753
5	Farmyard manure and chemical fertilizers	18358	19852	16989	22096	24676
6	Plant protection	1391	1981	1843	1170	2035
7	Land tax and irrigation cess	339	384	788	491	632
8	Repair and maintenance charges of implements, machinery and building	1222	3753	1082	688	2421
9	Interest on working capital	10329	11057	7638	11148	11643
10	Other expenses	22174	20993	19152	24452	23467
11	Total cost 'A' (1-10)	115180	125766	85883	123807	131130
12	Interest on fixed capital	1071	2062	1290	1727	1636
13	Cost 'B1' (11+12)	116251	127828	87173	125534	132766
14	Interest on land value	471713	335296	364125	305937	213261
15	Cost 'B' (13+14)	587964	463124	451298	431471	346027
16	Imputed value of household labour	24206	17540	16131	17945	12960
17	Cost 'C' (15+16)	612170	480664	467429	449416	358987

# A 2.13 District wise Cost of Cultivation per hectare (in Rs.) of Bitter Gourd (Winter) during 2013-14

Sl No	Components	Eranakulam	Idukki	Thrissu r	Palakkad	Wayanad
1	Hired human labour	38838	39860	40358	57215	55159
2	Animal labour	0	0	0	0	0
3	Machine labour	531	0	0	1773	0
4	Seed / seedlings	2428	2202	3760	3408	3963
5	Farmyard manure and chemical fertilizers	16421	24255	16730	19701	17485
6	Plant protection	1575	1159	1053	1110	1785
7	Land tax and irrigation cess	427	743	369	632	601
8	Repair and maintenance charges of implements, machinery and building	762	0	440	959	3821
9	Interest on working capital	7567	8256	8904	9951	9157
10	Other expenses	15873	15084	27136	16299	13182
11	Total cost 'A' (1-10)	84422	91559	98750	111048	105153
12	Interest on fixed capital	1203	808	1037	855	1343
13	Cost 'B1' (11+12)	85625	92367	99787	111903	106496
14	Interest on land value	400877	413510	397365	365840	240799
15	Cost 'B' (13+14)	486502	505877	497152	477743	347295
16	Imputed value of household labour	18738	16322	20445	15016	18610
17	Cost 'C' (15+16)	505240	522199	517597	492759	365905

# A 2.13 District wise Cost of Cultivation per hectare (in Rs.) of $\,$ Bitter Gourd (Winter) during 2013-14

Sl No	Components	Malappuram	Kozhikko de	Kannur	Kasaragod	State
1	Hired human labour	47461	0	0	40904	51406
2	Animal labour	0	0	0	0	0
3	Machine labour	904	0	0	4413	616
4	Seed / seedlings	3089	0	0	4448	2947
5	Farmyard manure and chemical fertilizers	17327	0	0	16119	19141
6	Plant protection	2546	0	0	0	1480
7	Land tax and irrigation cess	693	0	0	578	529
8	Repair and maintenance charges of implements, machinery and building	520		0	1324	1515
9	Interest on working capital	8639	0	0	8428	9489
10	Other expenses	15067	0	0	18396	19304
11	Total cost 'A' (1-10)	96246	0	0	94610	106427
12	Interest on fixed capital	1085	0	0	1243	1226
13	Cost 'B1' (11+12)	97331		0	95853	107653
14	Interest on land value	289438	0	0	282841	351761
15	Cost 'B' (13+14)	386769	0	0	378694	459414
16	Imputed value of household labour	21817	0	0	17090	18032
17	Cost 'C' (15+16)	408586	0	0	395784	477446

### A 2.14 District wise Cost of Cultivation per hectare (in Rs.) of $\,$ Bitter Gourd (Summer) during 2013-14

Sl No	Components	Thiruvananth apuram	Kollam	Pathana mthitta	Alappuzha	Kottayam
1	Hired human labour	50633	59754	44511	37474	49189
2	Animal labour	0	0	0	0	0
3	Machine labour	0	0	0	0	0
4	Seed / seedlings	2546	3106	3989	1763	3444
5	Farmyard manure and chemical fertilizers	21461	23420	27930	17925	27730
6	Plant protection	1275	2018	1681	0	1186
7	Land tax and irrigation cess	396	583	514	499	441
8	Repair and maintenance charges of implements, machinery and building	2580	2638	1522	1841	2752
9	Interest on working capital	9496	10705	10028	7614	10289
10	Other expenses	19049	18755	22172	18974	21343
11	Total cost 'A' (1-10)	107436	120979	112347	86090	116374
12	Interest on fixed capital	2911	4079	2729	1939	3106
13	Cost 'B1' (11+12)	110347	125058	115076	88029	119480
14	Interest on land value	413496	439830	393779	291652	385862
15	Cost 'B' (13+14)	523843	564888	508855	379681	505342
16	Imputed value of household labour	21962	20901	20924	23389	22649
17	Cost 'C' (15+16)	545805	585789	529779	403070	527991

### A 2.14 District wise Cost of Cultivation per hectare (in Rs.) of Bitter Gourd (Summer) during 2013-14

Sl No	Components	Eranakulam	Idukki	Thrissu r	Palakkad	Wayanad
1	Hired human labour	41595	32430	31725	34146	50326
2	Animal labour	0	0	0	0	0
3	Machine labour	0	0	0	0	0
4	Seed / seedlings	2624	1352	3212	4163	3826
5	Farmyard manure and chemical fertilizers	25850	21388	24721	20134	16227
6	Plant protection	2010	0	2062	1926	2431
7	Land tax and irrigation cess	706	668	370	556	462
8	Repair and maintenance charges of implements, machinery and building	1992	1840	1336	2309	3939
9	Interest on working capital	9066	7317	8033	7713	8929
10	Other expenses	18580	17998	18609	16757	16480
11	Total cost 'A' (1-10)	102423	82993	90068	87704	102620
12	Interest on fixed capital	1933	3894	1149	3033	1635
13	Cost 'B1' (11+12)	104356	86887	91217	90737	104255
14	Interest on land value	494443	398198	218124	245528	233250
15	Cost 'B' (13+14)	598799	485085	309341	336265	337505
16	Imputed value of household labour	21298	22899	21350	24535	22891
17	Cost 'C' (15+16)	620097	507984	330691	360800	360396

# A 2.14 District wise Cost of Cultivation per hectare (in Rs.) of $\,$ Bitter Gourd (Summer) during 2013-14

Sl No	Components	Malappuram	Kozhikko de	Kannur	Kasaragod	State
1	Hired human labour	0	35820	53538	37119	42917
2	Animal labour	0	0	0	0	0
3	Machine labour	0	0	0	0	0
4	Seed / seedlings	0	1255	2789	2450	2977
5	Farmyard manure and chemical fertilizers	0	19949	23475	22468	22160
6	Plant protection	0	2167	1263	0	1459
7	Land tax and irrigation cess	0	713	412	787	508
8	Repair and maintenance charges of implements, machinery and building	0	1587	0	1541	2276
9	Interest on working capital	0	7805	11059	8152	8833
10	Other expenses	0	18856	29520	19480	18818
11	Total cost 'A' (1-10)	0	88152	122056	91997	99948
12	Interest on fixed capital	0	2741	1535	2935	2569
13	Cost 'B1' (11+12)	0	90893	123591	94932	102517
14	Interest on land value	0	284165	291029	270668	329255
15	Cost 'B' (13+14)	0	375058	414620	365600	431772
16	Imputed value of household labour	0	21289	28362	22356	22359
17	Cost 'C' (15+16)	0	396347	442982	387956	454131

### A 2.15 District wise Cost of Cultivation per hectare (in Rs.) of Cowpea (Autumn) during 2013-14

Sl No	Components	Thiruvananth apuram	Kollam	Pathana mthitta	Alappuzha	Kottayam
1	Hired human labour	59622	63908	41513	50996	54080
2	Animal labour	0	0	0	0	0
3	Machine labour	0	3825	0	0	0
4	Seed / seedlings	1596	2243	4942	7958	3929
5	Farmyard manure and chemical fertilizers	40712	37838	20262	19306	40138
6	Plant protection	2064	1949	0	893	3425
7	Land tax and irrigation cess	314	966	395	341	523
8	Repair and maintenance charges of implements, machinery and building	2396	4278	6425	4142	5733
9	Interest on working capital	12803	13266	8896	9894	12452
10	Other expenses	24035	22897	22239	19784	22945
11	Total cost 'A' (1-10)	143542	151170	104672	113314	143225
12	Interest on fixed capital	2103	5454	3954	1365	3337
13	Cost 'B1' (11+12)	145645	156624	108626	114679	146562
14	Interest on land value	448425	360839	395360	224060	468231
15	Cost 'B' (13+14)	594070	517463	503986	338739	614793
16	Imputed value of household labour	35509	30314	27181	23638	29721
17	Cost 'C' (15+16)	629579	547777	531167	362377	644514

### A 2.15 District wise Cost of Cultivation per hectare (in Rs.) of Cowpea (Autumn) during 2013-14

Sl No	Components	Eranakulam	Idukki	Thrissu r	Palakkad	Wayanad
1	Hired human labour	49420	0	51986	55455	0
2	Animal labour	0	0	0	0	0
3	Machine labour	0	0	0	2180	0
4	Seed / seedlings	5967	0	1407	3053	0
5	Farmyard manure and chemical fertilizers	24228	0	21964	23459	0
6	Plant protection	437	0	2337	2744	0
7	Land tax and irrigation cess	208	0	218	128	0
8	Repair and maintenance charges of implements, machinery and building	6248	0	3261	1145	0
9	Interest on working capital	10980	0	9360	10741	0
10	Other expenses	29750	0	15906	20521	0
11	Total cost 'A' (1-10)	127238	0	106439	119426	0
12	Interest on fixed capital	1479	0	1053	3191	0
13	Cost 'B1' (11+12)	128717	0	107492	122617	0
14	Interest on land value	416293	0	415405	210921	0
15	Cost 'B' (13+14)	545010	0	522897	333538	0
16	Imputed value of household labour	26589	0	19303	33662	0
17	Cost 'C' (15+16)	571599	0	542200	367200	0

### A 2.15 District wise Cost of Cultivation per hectare (in Rs.) of $\,$ Cowpea (Autumn) during 2013-14

Sl No	Components	Malappuram	Kozhikko de	Kannur	Kasaragod	State
1	Hired human labour	47501	0	0	35148	54451
2	Animal labour	0	0	0	0	0
3	Machine labour	0	0	0	0	705
4	Seed / seedlings	3178	0	0	6817	2982
5	Farmyard manure and chemical fertilizers	21394	0	0	19504	28646
6	Plant protection	0	0	0	0	1893
7	Land tax and irrigation cess	502	0	0	213	366
8	Repair and maintenance charges of implements, machinery and building	3375	0	0	4345	3207
9	Interest on working capital	9420	0	0	9014	10981
10	Other expenses	22124	0	0	28672	21128
11	Total cost 'A' (1-10)	107494	0	0	103713	124359
12	Interest on fixed capital	268	0	0	21191	2279
13	Cost 'B1' (11+12)	107762	0	0	124904	126638
14	Interest on land value	385040	0	0	443502	402486
15	Cost 'B' (13+14)	492802	0	0	568406	529124
16	Imputed value of household labour	33872	0	0	23828	29409
17	Cost 'C' (15+16)	526674	0	0	592234	558533

# A 2.16 District wise Cost of Cultivation per hectare (in Rs.) of $\,$ Cowpea (Winter) during 2013-14

Sl No	Components	Thiruvananth apuram	Kollam	Pathana mthitta	Alappuzha	Kottayam
1	Hired human labour	41498	44328	32270	27752	46879
2	Animal labour	0	0	0	0	0
3	Machine labour	0	335	0	211	0
4	Seed / seedlings	2241	3637	5294	2160	1599
5	Farmyard manure and chemical fertilizers	19898	20438	17408	16694	21121
6	Plant protection	1904	1990	4457	1582	1500
7	Land tax and irrigation cess	224	700	497	164	425
8	Repair and maintenance charges of implements, machinery and building	1730	4808	1636	3568	2012
9	Interest on working capital	8871	8335	7602	6854	9136
10	Other expenses	23170	12617	16594	20144	20258
11	Total cost 'A' (1-10)	99536	97188	85758	79129	102930
12	Interest on fixed capital	2789	5306	1333	1125	6717
13	Cost 'B1' (11+12)	102325	102494	87091	80254	109647
14	Interest on land value	320193	368465	240727	315571	240665
15	Cost 'B' (13+14)	422518	470959	327818	395825	350312
16	Imputed value of household labour	23247	30228	23888	9257	29584
17	Cost 'C' (15+16)	445765	501187	351706	405082	379896

# A 2.16 District wise Cost of Cultivation per hectare (in Rs.) of $\,$ Cowpea (Winter) during 2013-14

Sl No	Components	Eranakulam	Idukki	Thrissur	Palakkad	Wayanad
BITTO	Components					
1	Hired human labour	41545	48532	39928	42653	0
2	Animal labour	0	0	0	0	0
3	Machine labour	303	0	0	1275	0
4	Seed / seedlings	3798	1594	2469	2824	0
5	Farmyard manure and chemical fertilizers	18944	23201	12168	13207	0
6	Plant protection	3495	0	3764	3102	0
7	Land tax and irrigation cess	117	228	221	132	0
8	Repair and maintenance charges of implements, machinery and building	1470	2277	1104	2109	0
9	Interest on working capital	9744	8356	7774	8669	0
10	Other expenses	29357	10228	19408	23631	0
11	Total cost 'A' (1-10)	108773	94416	86836	97602	0
12	Interest on fixed capital	6840	2920	5727	4240	0
13	Cost 'B1' (11+12)	115613	97336	92563	101842	0
14	Interest on land value	351365	268906	363889	265749	0
15	Cost 'B' (13+14)	466978	366242	456452	367591	0
16	Imputed value of household labour	33846	20520	27042	25390	0
17	Cost 'C' (15+16)	500824	386762	483494	392981	0

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### A 2.16 District wise Cost of Cultivation per hectare (in Rs.) of $\,$ Cowpea (Winter) during 2013-14

Sl No	Components	Malappuram	Kozhikko de	Kannur	Kasaragod	State
1	Hired human labour	38144	0	0	25821	39768
2	Animal labour	0	0	0	0	0
3	Machine labour	0	0	0	2471	256
4	Seed / seedlings	3330	0	0	2589	2809
5	Farmyard manure and chemical fertilizers	19284	0	0	18744	17701
6	Plant protection	1869	0	0	1883	2490
7	Land tax and irrigation cess	743	0	0	424	313
8	Repair and maintenance charges of implements, machinery and building	1072	0	0	3718	2171
9	Interest on working capital	7864	0	0	7168	8335
10	Other expenses	16012	0	0	20173	20322
11	Total cost 'A' (1-10)	88318	0	0	82991	94165
12	Interest on fixed capital	1487	0	0	5256	4118
13	Cost 'B1' (11+12)	89805	0	0	88247	98283
14	Interest on land value	348347	0	0	290284	361305
15	Cost 'B' (13+14)	438152	0	0	378531	459588
16	Imputed value of household labour	24055	0	0	24665	24734
17	Cost 'C' (15+16)	462207	0	0	403196	484322

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# A 2.17 District wise Cost of Cultivation per hectare (in Rs.) of $\,$ Cowpea (Summer) during 2013-14

Sl No	Components	Thiruvananth apuram	Kollam	Pathana mthitta	Alappuzha	Kottayam
1	Hired human labour	50724	46645	39182	48011	43835
2	Animal labour	0	0	0	101	0
3	Machine labour	0	0	0	0	0
4	Seed / seedlings	2445	3514	4816	3062	3868
5	Farmyard manure and chemical fertilizers	19882	27839	15708	18424	13990
6	Plant protection	1062	2091	1989	908	1070
7	Land tax and irrigation cess	319	575	157	889	223
8	Repair and maintenance charges of implements, machinery and building	2240	3183	3755	3447	2251
9	Interest on working capital	9063	9858	8198	9448	8161
10	Other expenses	16517	18493	20287	23973	18842
11	Total cost 'A' (1-10)	102252	112198	94092	108263	92240
12	Interest on fixed capital	1230	1772	1426	3728	1639
13	Cost 'B1' (11+12)	103482	113970	95518	111991	93879
14	Interest on land value	490219	334487	206910	313576	399602
15	Cost 'B' (13+14)	593701	448457	302428	425567	493481
16	Imputed value of household labour	17230	15556	18311	12978	13520
17	Cost 'C' (15+16)	610931	464013	320739	438545	507001

### A 2.17 District wise Cost of Cultivation per hectare (in Rs.) of Cowpea (Summer) during 2013-14

Sl No	Components	Eranakulam	Idukki	Thrissu r	Palakkad	Wayanad
1	Hired human labour	51891	31789	24562	27591	30860
2	Animal labour	0	0	0	0	0
3	Machine labour	0	1002	0	1532	0
4	Seed / seedlings	2365	1352	4984	3103	4848
5	Farmyard manure and chemical fertilizers	19097	23558	19609	11537	11797
`6	Plant protection	1942	1018	2350	2764	2176
7	Land tax and irrigation cess	353	868	489	127	322
8	Repair and maintenance charges of implements, machinery and building	2330	5445	5617	1937	2794
9	Interest on working capital	9775	7284	6671	6146	6217
10	Other expenses	22451	14125	15205	14937	12488
11	Total cost 'A' (1-10)	110204	86441	79487	69674	71502
12	Interest on fixed capital	4328	4094	3503	3410	3531
13	Cost 'B1' (11+12)	114532	90535	82990	73084	75033
14	Interest on land value	445719	376126	307410	291222	240733
15	Cost 'B' (13+14)	560251	466661	390400	364306	315766
16	Imputed value of household labour	20121	16221	20723	12363	12649
17	Cost 'C' (15+16)	580372	482882	411123	376669	328415

### A 2.17 District wise Cost of Cultivation per hectare (in Rs.) of $\,$ Cowpea (Summer) during 2013-14

Sl No	Components	Malappuram	Kozhikko Kannur de		Kasaragod	State
1	Hired human labour	37227	35348	26979	32702	37921
2	Animal labour	0	0	0	273	16
3	Machine labour	0	0	0	3154	263
4	Seed / seedlings	2553	1420	1773	5747	3619
5	Farmyard manure and chemical fertilizers	14263	20260	20683	22885	17529
6	Plant protection	2589	0	0	1454	1649
7	Land tax and irrigation cess	649	832	832 638		423
8	Repair and maintenance charges of implements, machinery and building	3566	1358	0	1515	2954
9	Interest on working capital	7636	7631	6896	8049	7839
10	Other expenses	19729	19277	19526	14270	17394
11	Total cost 'A' (1-10)	88212	86126	76495	90756	89607
12	Interest on fixed capital	1485	1348	1020	3758	2306
13	Cost 'B1' (11+12)	89697	87474	77515	94514	91913
14	Interest on land value	249061	254110	355296	254267	320463
15	Cost 'B' (13+14)	338758	341584	432811	348781	412376
16	Imputed value of household labour	15226	19733	15028	18505	15849
17	Cost 'C' (15+16)	353984	361317	447839	367286	428225

#### A 2.18 District wise Cost of Cultivation per hectare (in Rs.) of Cardamom during 2013-14

Sl No	Components	Idukki	Palakkad	Wayanad	State
1	Hired human labour	65935	79684	75520	70799
2	Animal labour	0	0	0	0
3	Machine labour	1337	0	0	750
4	Seed / seedlings	11313	0	0	6343
5	Farmyard manure and chemical fertilizers	15540	17533	50692	25787
6	Plant protection	1061	3343	769	1336
7	Land tax and irrigation cess	124	156	337	189
8	Repair and maintenance charges of implements, machinery and building	1372	1282	1813	1481
9	Interest on working capital	10436	11419	12744	11242
10	Other expenses	9172	13629	461	7409
11	Total cost 'A' (1-10)	116290	127046	142336	125336
12	Interest on fixed capital	3010	3287	1312	2574
13	Cost 'B1' (11+12)	119300	130333	143648	127910
14	Interest on land value	356313	402101	219843	326157
15	Cost 'B' (13+14)	475613	532434	363491	454067
16	Imputed value of household labour	18631	16730	11706	16376
17	Cost 'C' (15+16)	494244	549164	375197	470443

### A 3.1 Percentage of Hired human labour hours to total human labour hours under Autumn paddy

Sl No	District	Male	Female	Total
1	Thiruvananthapuram	36.97	46.20	83.17
2	Kollam	35.19	57.38	92.57
`3	Pathanamthitta	32.65	41.70	74.35
4	Alappuzha	27.64	51.67	79.31
5	Kottayam	20.85	63.71	84.56
6	Eranakulam	29.57	52.11	81.68
7	Idukki	47.77	27.30	75.07
8	Thrissur	26.15	53.11	79.26
9	Palakkad	16.83	62.61	79.44
`10	Wayanad	0	0	0
11	Malappuram	21.38	66.06	87.44
12	Kozhikkode	20.83	45.42	66.25
13	Kannur	17.17	78.70	95.87
14	Kasaragod	16.50	51.82	68.32
	State	25.76	56.73	82.49

## A 3.2 Percentage of Hired human labour hours to total human labour hours under Winter paddy

Sl No	District	Male	Female	Total
1	Thiruvananthapuram	29.96	48.62	78.58
2	Kollam	39.71	53.41	93.12
3	Pathanamthitta	24.24	56.80	81.04
4	Alappuzha	30.01	53.11	83.12
5	Kottayam	33.56	41.48	75.04
6	Eranakulam	28.17	44.37	72.54
7	Idukki	49.60	28.40	78.0
8	Thrissur	33.99	50.29	84.28
9	Palakkad	21.38	65.66	87.04
10	Wayanad	47.58	41.23	88.81
11	Malappuram	23.75	62.88	86.63
12	Kozhikkode	31.38	30.56	61.94
13	Kannur	33.18	56.70	89.88
14	Kasaragod	21.71	45.16	66.87
	State	30.27	52.71	82.98

## A 3.3 Percentage of Hired human labour hours to total human labour hours under Summer paddy

Sl No	District	Male	Female	Total
1	Thiruvananthapuram	37.45	46.22	83.67
2	Kollam	35.59	44.98	80.57
3	Pathanamthitta	42.11	51.12	93.23
4	Alappuzha	28.19	52.87	81.06
5	Kottayam	41.33	39.26	80.59
6	Eranakulam	22.83	42.43	65.26
7	Idukki	44.17	28.05	72.22
8	Thrissur	57.12	31.26	88.38
9	Palakkad	26.99	52.78	79.77
10	Wayanad	38.21	36.95	75.16
11	Malappuram	47.09	39.72	86.81
12	Kozhikkode	23.40	46.40	69.8
13	Kannur	24.36	60.45	84.81
14	Kasaragod	22.61	49.42	72.03
	State	37.78	45.27	83.05

#### A3.4 Percentage of Hired human labour hours to total human labour hours under Coconut

Sl No	District	Male	Female	Total
1	Thiruvananthapuram	67.40	12.29	79.69
2	Kollam	75.20	11.97	87.17
3	Pathanamthitta	67.64	11.53	79.17
4	Alappuzha	60.65	18.09	78.74
5	Kottayam	62.78	13.29	76.07
6	Eranakulam	56.93	14.04	70.97
7	Idukki	46.04	15.13	61.17
8	Thrissur	63.09	20.71	83.8
9	Palakkad	60.70	16.29	76.99
10	Wayanad	12.74	5.01	17.75
11	Malappuram	69.38	16.56	85.94
12	Kozhikkode	55.42	15.61	71.03
13	Kannur	67.55	28.21	95.76
14	Kasaragod	54.01	18.12	72.13
	State	54.27	14.23	68.50

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#### A 3.5 Percentage of Hired human labour hours to total human labour hours under Arecanut

Sl No	District	Male	Female	Total
1	Thiruvananthapuram	29.49	10.19	39.68
2	Kollam	58.83	26.47	85.3
3	Pathanamthitta	59.12	20.39	79.51
4	Alappuzha	49.88	25.57	75.45
5	Kottayam	51.49	23.12	74.61
6	Eranakulam	40.41	17.73	58.14
7	Idukki	37.28	21.13	58.41
8	Thrissur	61.01	16.56	77.57
9	Palakkad	57.98	19.79	77.77
10	Wayanad	68.09	20.69	88.78
11	Malappuram	64.91	17.19	82.1
12	Kozhikkode	57.46	11.26	68.72
13	Kannur	56.14	31.86	88
14	Kasaragod	39.06	19.44	58.50
	State	53.68	19.28	72.96

#### A 3.6 Percentage of Hired human labour hours to total human labour hours under Tapioca

Sl No	District	Male	Female	Total
1	Thiruvananthapuram	51.85	13.77	65.62
2	Kollam	70.61	17.75	88.36
3	Pathanamthitta	60.44	15.64	76.08
4	Alappuzha	42.47	11.54	54.01
5	Kottayam	55.21	15.30	70.51
6	Eranakulam	39.36	17.31	56.67
7	Idukki	30.37	14.12	44.49
8	Thrissur	52.16	22.91	75.07
9	Palakkad	38.11	26.64	64.75
10	Wayanad	55.93	22.93	78.86
11	Malappuram	56.50	18.60	75.1
12	Kozhikkode	56.93	16.23	73.16
13	Kannur	46.99	32.53	79.52
14	Kasaragod	40.85	25.57	66.42
	State	48.89	18.65	67.54

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#### A 3.7 Percentage of Hired human labour hours to total human labour hours under Banana

Sl No	District	Male	Female	Total
1	Thiruvananthapuram	58.05	14.06	72.11
2	Kollam	65.11	23.33	88.44
3	Pathanamthitta	56.87	16.99	73.86
4	Alappuzha	41.98	15.21	57.19
5	Kottayam	35.79	14.13	49.92
6	Eranakulam	47.97	31.49	79.46
7	Idukki	37.02	17.66	54.68
8	Thrissur	50.23	23.14	73.37
9	Palakkad	57.06	20.56	77.62
10	Wayanad	31.57	13.19	44.76
11	Malappuram	52.39	18.51	70.9
12	Kozhikkode	56.96	19.72	76.68
13	Kannur	54.35	21.44	75.79
14	Kasaragod	25.48	17.59	43.07
	State	48.10	20.06	68.16

### A 3.8 Percentage of Hired human labour hours to total human labour hours under Pepper

Sl No	District	Male	Female	Total
1	Thiruvananthapuram	58.18	20.96	79.14
2	Kollam	49.80	21.47	71.27
3	Pathanamthitta	55.09	23.27	78.36
4	Alappuzha	36.56	20.59	57.15
5	Kottayam	49.99	19.23	69.22
6	Eranakulam	38.56	19.21	57.77
7	Idukki	45.23	12.89	58.12
8	Thrissur	42.24	17.65	59.89
9	Palakkad	48.92	13.55	62.47
10	Wayanad	50.65	29.50	80.15
11	Malappuram	47.12	23.04	70.16
12	Kozhikkode	48.86	24.60	73.46
13	Kannur	52.72	32.54	85.26
14	Kasaragod	27.84	13.96	41.8
	State	47.39	19.45	66.84

#### A 3.9 Percentage of Hired human labour hours to total human labour hours under Ginger

Sl No	District	Male	Female	Total
1	Thiruvananthapuram	46.85	26.87	73.72
2	Kollam	63.11	20.85	83.96
3	Pathanamthitta	41.91	26.57	68.48
4	Alappuzha	35.17	24.57	59.74
5	Kottayam	23.97	13.64	37.61
6	Eranakulam	24.32	23.04	47.36
7	Idukki	24.37	18.39	42.76
8	Thrissur	49.68	38.72	88.4
`9	Palakkad	37.53	51.31	88.84
10	Wayanad	45.69	26.74	72.43
11	Malappuram	43.16	13.49	56.65
12	Kozhikkode	42.42	23.04	65.46
13	Kannur	53.61	15.31	68.92
14	Kasaragod	48.48	25.71	74.19
	State	39.67	38.72	78.39

### A 3.10 Percentage of Hired human labour hours to total human labour hours under Turmeric

Sl No	District	Male	Female	Total
1	Thiruvananthapuram	37.74	27.70	65.44
2	Kollam	51.80	21.97	73.77
3	Pathanamthitta	59.61	28.64	88.25
4	Alappuzha	34.32	17.09	51.41
5	Kottayam	21.79	15.62	37.41
6	Eranakulam	30.09	18.79	48.88
7	Idukki	19.21	13.27	32.48
`8	Thrissur	35.77	31.64	67.41
9	Palakkad	29.93	44.82	74.75
10	Wayanad	50.30	21.33	71.63
11	Malappuram	36.82	23.42	60.24
12	Kozhikkode	37.45	21.41	58.86
13	Kannur	38.55	22.89	61.44
14	Kasaragod	20.40	14.90	35.3
	State	33.91	28.13	62.04

## A 3.11 Percentage of Hired human labour hours to total human labour hours under Pineapple $\,$

Sl No	District	Male	Female	Total
1	Thiruvananthapuram	51.58	35.35	86.93
2	Kollam	48.32	29.33	77.65
3	Pathanamthitta	49.33	24.69	74.02
4	Alappuzha	54.52	36.04	90.56
5	Kottayam	46.37	30.88	77.25
6	Eranakulam	59.78	26.65	86.43
7	Idukki	34.03	29.21	63.24
8	Thrissur	52.36	34.4	86.76
`9	Palakkad	69.45	23.09	92.54
10	Wayanad	56.33	26.67	83
11	Malappuram	0	0	0
12	Kozhikkode	55.35	2454	79.89
13	Kannur	20.27	11.9	32.17
14	Kasaragod	51.02	31.25	82.27
	State	53.21	26.70	79.91

A 3.12 Percentage of Hired human labour hours to total human labour hours under Bitter Gourd (Autumn)  ${\bf A}$ 

Sl No	District	Male	Female	Total
1	Thiruvananthapuram	32.78	19.75	52.53
2	Kollam	52.19	27.60	79.79
3	Pathanamthitta	0	0	0
4	Alappuzha	41.49	23.27	64.76
5	Kottayam	39.25	12.34	51.59
6	Eranakulam	27.98	16.93	44.91
7	Idukki	0	0	0
`8	Thrissur	30.45	12.15	42.60
9	Palakkad	35.57	21.02	56.59
10	Wayanad	0	0	0
11	Malappuram	58.26	36.73	94.99
12	Kozhikkode	0	0	0
13	Kannur	0	0	0
14	Kasaragod	31.9	22.08	53.98
	State	37.19	20.30	57.49

### A 3.13 Percentage of Hired human labour hours to total human labour hours under Bitter Gourd (Winter) $\,$

Sl No	District	Male	Female	Total
1	Thiruvananthapuram	30.97	20.55	51.52
2	Kollam	47.82	31.58	79.4
3	Pathanamthitta	57.9	29.39	87.29
4	Alappuzha	26.59	15.25	41.84
5	Kottayam	36.72	17.81	54.53
6	Eranakulam	26.77	17.52	44.29
7	Idukki	43.26	14.13	57.39
`8	Thrissur	33.32	13.84	47.16
9	Palakkad	45.14	24.33	69.47
10	Wayanad	40.38	22.28	62.66
11	Malappuram	52.67	38.35	91.02
12	Kozhikkode	0	0	0
13	Kannur	0	0	0
14	Kasaragod	33.59	24.29	57.88
	State	38.98	22.00	60.98

### A 3.14 Percentage of Hired human labour hours to total human labour hours under Bitter Gourd (Summer) ${\bf S}$

Sl No	District	Male	Female	Total
1	Thiruvananthapuram	33.21	23.19	56.4
2	Kollam	49.42	29.38	78.8
3	Pathanamthitta	47.2	30.19	77.39
4	Alappuzha	32.91	18.33	51.24
5	Kottayam	32.77	23.63	56.4
6	Eranakulam	39.27	35.16	74.43
7	Idukki	28.53	21.2	49.73
`8	Thrissur	30.96	26.61	57.57
9	Palakkad	27.09	19.8	46.89
10	Wayanad	34.61	22.85	57.46
11	Malappuram	0	0	0
12	Kozhikkode	44.61	28.07	72.68
13	Kannur	51.81	32.95	84.76
14	Kasaragod	28.49	21.48	49.97
	State	34.98	24.43	59.41

### A 3.15 Percentage of Hired human labour hours to total human labour hours under Cowpea (Autumn) $\frac{1}{2}$

Sl No	District	Male	Female	Total
1	Thiruvananthapuram	40.81	20.50	61.31
2	Kollam	64.12	19.65	83.77
3	Pathanamthitta	67.33	28.95	96.28
4	Alappuzha	25.53	14.46	39.99
5	Kottayam	28.58	15.41	43.99
6	Eranakulam	31.56	24.98	56.54
7	Idukki	0	0	0
`8	Thrissur	39.74	13.87	53.61
9	Palakkad	39.37	18.86	58.23
10	Wayanad	0	0	0
11	Malappuram	38.36	24.26	62.62
12	Kozhikkode	0	0	0
13	Kannur	0	0	0
14	Kasaragod	51.65	31.86	83.51
	State	41.21	19.62	60.83

A 3.16 Percentage of Hired human labour hours to total human labour hours under Cowpea (Winter)  $\,$ 

Sl No	District	Male	Female	Total
1	Thiruvananthapuram	34.86	27.36	62.22
2	Kollam	55.56	29.21	84.77
3	Pathanamthitta	52.42	31.58	84
4	Alappuzha	19.06	15.93	34.99
5	Kottayam	28.94	24.06	53
6	Eranakulam	21.11	14.95	36.06
7	Idukki	56.33	25.07	81.4
`8	Thrissur	37.11	22.16	59.27
9	Palakkad	37.23	21.59	58.82
10	Wayanad	0	0	0
11	Malappuram	35.44	30.29	65.73
12	Kozhikkode	0	0	0
13	Kannur	0	0	0
14	Kasaragod	43.84	35.02	78.86
	State	34.97	23.93	58.90

### A 3.17 Percentage of Hired human labour hours to total human labour hours under Cowpea (Summer)

Sl No	District	Male	Female	Total
1	Thiruvananthapuram	38.55	20.59	59.14
2	Kollam	47.36	32.22	79.58
3	Pathanamthitta	27.37	11.97	39.34
4	Alappuzha	24.51	18.97	43.48
5	Kottayam	32.70	16.49	49.19
6	Eranakulam	43.99	36.66	80.65
7	Idukki	31.70	20.81	52.51
`8	Thrissur	30.47	26.92	57.39
9	Palakkad	24.78	15.61	40.39
10	Wayanad	40.52	22.27	62.79
11	Malappuram	29.67	22.39	52.06
12	Kozhikkode	48.13	35.29	83.42
13	Kannur	35.23	21.23	56.46
14	Kasaragod	25.76	13.84	39.6
	State	34.21	20.77	54.98

### A 3.18 Percentage of Hired human labour hours to total human labour hours under Cardamom

Sl No	District	Male	Female	Total
1	Idukki	24.69	45.92	70.61
2	Palakkad	28.46	52.26	80.72
3	Wayanad	33.87	53.47	87.34
	State	28.03	49.23	77.27

# ${\bf A4.1\, District\,\, wise\,\, Value\,\, of\,\, product\,\, and\,\, by-product\,\, per\,\, hectare\,\, (in\,\, Rs.)\,\, of\,\, Autumn\,\, Paddy}$

Sl No	District	Product	By Product	Total
1	Thiruvananthapuram	58426	22183	80610
2	Kollam	57163	20167	77330
3	Pathanamthitta	36716	9560	46276
4	Alappuzha	62931	1891	64822
5	Kottayam	58134	3901	62036
6	Eranakulam	66580	10383	76963
7	Idukki	62870	7187	70057
8	Thrissur	54839	3982	58821
9	Palakkad	59528	2875	62403
10	Wayanad	0	0	0
11	Malappuram	62731	10055	72785
12	Kozhikkode	61566	16673	78239
13	Kannur	45399	10608	56007
14	Kasaragod	54303	12358	66661
	State	59475	7743	67218

 ${\bf A4.2~District~wise~Value~of~product~and~by-product~per~hectare~(in~Rs.)~of~Winter~Paddy}$ 

Sl No	District	Product	By Product	Total
1	Thiruvananthapuram	65127	9200	74327
2	Kollam	60838	10620	71458
3	Pathanamthitta	63301	5771	69072
4	Alappuzha	66726	1884	68611
5	Kottayam	67011	3409	70420
6	Eranakulam	58498	3748	62246
7	Idukki	63712	6438	70150
8	Thrissur	59409	5059	64468
9	Palakkad	66073	4976	71049
10	Wayanad	58573	7682	66254
11	Malappuram	64090	3988	68078
12	Kozhikkode	67625	13088	80713
13	Kannur	60822	13792	74614
14	Kasaragod	63481	9391	72873
	State	63361	5282	68643

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# $A4.3\ District$ wise Value of product and by-product per hectare (in Rs.) of Summer Paddy

Sl No	District	Product	By Product	Total
1	Thiruvananthapuram	62537	6218	68755
2	Kollam	65152	6863	72014
3	Pathanamthitta	63641	2668	66309
4	Alappuzha	64526	1186	65712
5	Kottayam	64577	12170	76747
6	Eranakulam	66931	3033	69964
7	Idukki	62590	12566	75156
8	Thrissur	64079	7146	71224
9	Palakkad	70078	6320	76398
10	Wayanad	63018	12133	75151
11	Malappuram	68216	9652	77868
12	Kozhikkode	68281	6500	74781
13	Kannur	62721	7612	70333
14	Kasaragod	65148	7130	72278
	State	65094	5456	70550

 $A4.4\ District\ wise\ Value\ of\ product\ and\ by-product\ per\ hectare\ (in\ Rs.)$  of Coconut

Sl No	District	Product	By Product	Total
1	Thiruvananthapuram	91351	3112	94463
2	Kollam	89862	2510	92372
3	Pathanamthitta	80871	0	80871
4	Alappuzha	93160	16743	109902
5	Kottayam	94342	5591	99934
6	Eranakulam	90261	2645	92905
7	Idukki	83024	2421	85445
8	Thrissur	83414	4462	87876
9	Palakkad	92648	1347	93994
10	Wayanad	86181	0	86181
11	Malappuram	77278	904	78182
12	Kozhikkode	78965	7000	85965
13	Kannur	86645	4575	91220
14	Kasaragod	97431	2837	100269
	State	87877	4427	92304

# A4.5 District wise Value of product and by-product per hectare (in Rs.) of Arecanut ,Tapioca and Banana.

Sl No	District	Arecanut	Tapioca	Banana
1	Thiruvananthapuram	102573	233359	471538
2	Kollam	126246	210550	442653
3	Pathanamthitta	115935	258713	362250
4	Alappuzha	113175	246110	349239
5	Kottayam	134241	246905	474636
6	Eranakulam	100243	183864	243475
7	Idukki	119300	239595	456229
8	Thrissur	80748	158578	555505
9	Palakkad	128050	212594	345928
10	Wayanad	111203	286304	463985
11	Malappuram	110738	204278	319746
12	Kozhikkode	107315	236055	362765
13	Kannur	106769	275626	459763
14	Kasaragod	112628	193627	229786
	State	110201	219033	384288

# ${\bf A4.6~District~wise~Value~of~product~and~by-product~per~hectare~(in~Rs.)~of~Pepper, Ginger \& Turmeric.}$

Sl No	District	Pepper	Ginger	Turmeric
1	Thiruvananthapuram	151769	144735	223951
2	Kollam	172757	145009	199859
3	Pathanamthitta	141155	146910	179677
4	Alappuzha	166435	142640	121601
5	Kottayam	157708	174787	207929
6	Eranakulam	167633	180392	104212
7	Idukki	153794	217783	137805
8	Thrissur	170090	154729	125265
9	Palakkad	169211	193730	167533
10	Wayanad	175875	276673	152663
11	Malappuram	176851	188530	175047
12	Kozhikkode	136168	190690	144926
13	Kannur	139582	177400	168335
14	Kasaragod	164230	185625	195637
	State	161762	191234	154764

### A4.7 District wise Value of product and by-product per hectare of Pineapple

Sl No	District	Pineapple
1	Thiruvananthapuram	148385
2	Kollam	151782
3	Pathanamthitta	107693
4	Alappuzha	102094
5	Kottayam	148644
6	Eranakulam	106364
7	Idukki	107551
8	Thrissur	130658
9	Palakkad	153550
10	Wayanad	138377
11	Malappuram	0
12	Kozhikkode	128449
13	Kannur	124838
14	Kasaragod	110325
	State	124204

# A4.8 District wise Value of product and by-product per hectare Bitter gourd(Autumn,Winter and Summer)

Sl No	District	Bitter gourd(Autumn)	Bitter gourd(Winter)	Bitter gourd(Summer)
1	Thiruvananthapuram	198146	119665	166492
2	Kollam	168518	151997	156936
3	Pathanamthitta	0	120228	132539
4	Alappuzha	127449	155278	185490
5	Kottayam	189213	123432	127257
6	Eranakulam	130371	191435	160228
7	Idukki	0	110857	181319
8	Thrissur	176980	169156	112223
9	Palakkad	144501	162681	125773
10	Wayanad	0	136587	177031
11	Malappuram	185618	171759	0
12	Kozhikkode	0	0	106014
13	Kannur	0	0	114711
14	Kasaragod	142288	111102	166122
	State	168651	149125	150534

# ${\bf A4.9~District~wise~Value~of~product~and~by-product~per~hectare (in~Rs.)~of~Cowpea~(Autumn, Winter \& Summer)}$

Sl No	District	Cowpea(Autumn)	Cowpea(Winter)	Cowpea(Summer)
1	Thiruvananthapuram	194689	153423	180255
2	Kollam	170962	161831	124238
3	Pathanamthitta	103312	138758	132450
4	Alappuzha	183558	127033	115195
5	Kottayam	130937	173357	179273
6	Eranakulam	141496	156347	113633
7	Idukki	0	142547	181319
8	Thrissur	136151	145601	124223
9	Palakkad	116283	165979	142038
10	Wayanad	0	0	174875
11	Malappuram	130650	115668	144554
12	Kozhikkode	0	0	185144
13	Kannur	0	0	136345
14	Kasaragod	171306	124216	91556
	State	158530	149680	150010

#### A4.10 District wise Value of product and by-product per hectare of Cardamom

Sl No	District	Cardamom
1	Idukki	211602
2	Palakkad	145505
3	Wayanad	82492
	State	164752