

Government of Kerala

**Report On
Cost of Cultivation of
Important Crops in Kerala
2015-16**

**Department of Economics & Statistics
KERALA
2017**

PREFACE

The growth trend in the agricultural sector is not 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 in the crop production sector, studies on Cost of Cultivation of Important Crops in Kerala is essential. In connection with this, department conducts annual survey on Cost of Cultivation of Important Crops in Kerala.

This report is based on the field survey on Cost of Cultivation of Important Crops conducted during the year 2015-16. 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.

Thiruvananthapuram.
26-04-2018

Sd/
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 36th round of survey conducted during the agricultural year 2015-16.

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) 2015-16

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, Arecapnut	4
2	Paddy, Tapioca, Banana, Pepper, Ginger, Turmeric Pineapple, Cardamom.	3
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 are 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 normally 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:

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

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, Tapioca, Banana, Ginger, Turmeric, Pineapple.	Two months

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 the district and consolidation of data, the report writing and analysis were 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 Fair value of land

Cost 'C': Cost 'B' + Imputed value of family labour

As per the recommendation of the Expert Committee for Agricultural Statistics, instead of taking interest on Land value, Fair value of land reported by the Land Revenue Department has been taken for calculating Cost B of each crop. As a result, Cost B and Cost C of all crops covered in this survey report has been reduced considerably

(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 implements	In proportion to the area under the crop
II	Interest on fixed capital (excluding land)	In proportion to the area under the crop
III	Interest on land value	Interest on the Fair value of land under the crop

(d) Procedure for valuation of farm assets

- | | | |
|-----|---|-----------------------------------|
| I | Own farm buildings (cattle sheds, storage shed etc) | prices prevailing in the locality |
| 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 fair value of land 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 fair value 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 (Virippu) during 2015-16

For this study details of holding selected and area coverage are given below. The data collected from 650 holdings according to the size class by covering 512.20 hectares of land. It is observed that the average area per holding is 0.79 hectares in all classes while area per holding in large size class, ie more than two hectares is 3.53 hectares per holdings. But in small size class, ie, less than 0.40 hectare which comprises 14.99 % holdings, the average area per holding is only 0.24 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	323	76.80	14.99	0.24
Medium	263	209.40	40.88	0.80
Large	64	226.00	44.12	3.53
Total	650	512.20	100.00	0.79

Cost of cultivation

Under the Cost A ie; paid out cost actually incurred by the cultivators 48.32 percent of cost incurred against hired human labour is the highest. Machine labour cost shares 15.68% and farmyard manure and chemical fertilizers accounts to 12.89 % respectively. In holdings size class less than 0.40 hectare, cost under hired human labour is more, ie, 56.24% against total cost under Cost A while in size class above two hectares, the cost percentage under hired human labour is coming down to 42.72 percent. Similarly per hectare cost difference between large and small size class is Rs 16119.

Table 2: Cost of Cultivation per hectare (in Rs.) of Paddy (Autumn)

Sl No	Components	Holding size Class			
		Small	Medium	Large	All Size
1	Hired human labour	35174	26923	19834	25041
2	Animal labour	75	0	179	90
3	Machine labour	8001	8028	8258	8125
4	Seed / seedlings	2358	2367	2693	2509
5	Farmyard manure and chemical fertilizers	7023	7138	6140	6681
6	Plant protection	587	1046	1258	1070
7	Land tax and irrigation cess	148	289	188	223
8	Repair and maintenance charges of implements, machinery and building	3197	797	159	878
9	Interest on working capital	2819	2505	2194	2415
10	Other expenses	3165	4600	5525	4791
11	Total cost 'A' (1-10)	62547	53693	46428	51823
12	Interest on fixed capital	2097	929	451	894
13	Cost 'B1' (11+12)	64644	54622	68879	52717
14	Interest on land value	53893	43377	38768	42930
15	Cost 'B' (13+14)	118537	97999	85647	95647
16	Imputed value of household labour	13309	7749	4361	7093
17	Cost 'C' (15+16)	131846	105748	90008	102740

Percentage Distribution of “COST A” per hectare of Autumn Paddy during 2015-16

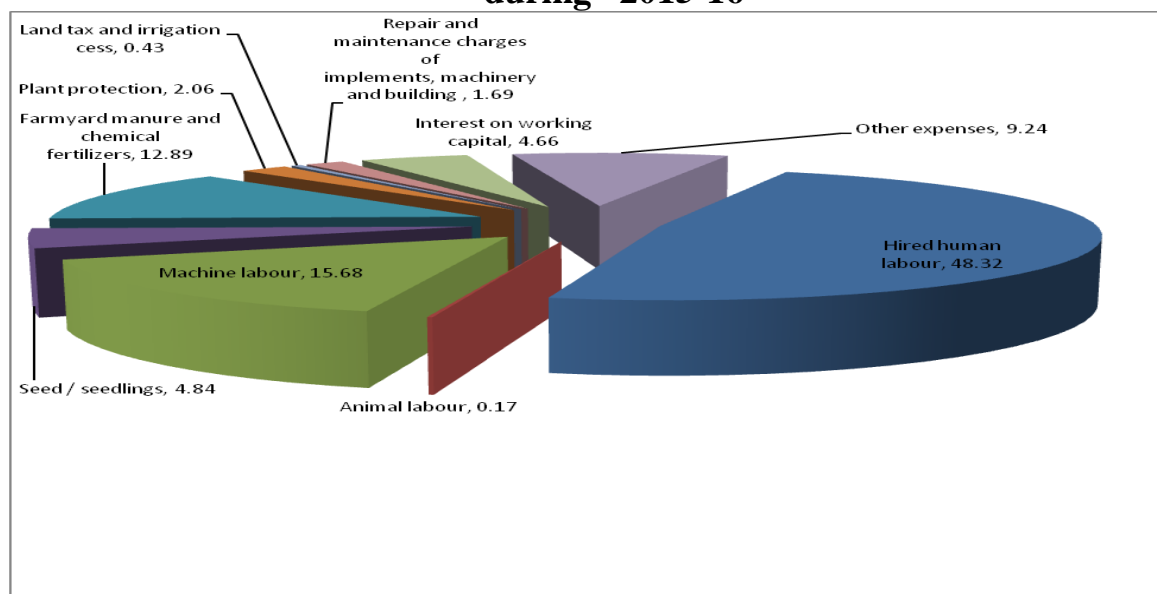


Table 3: Percentage of hired human labour hours to total human labour hours

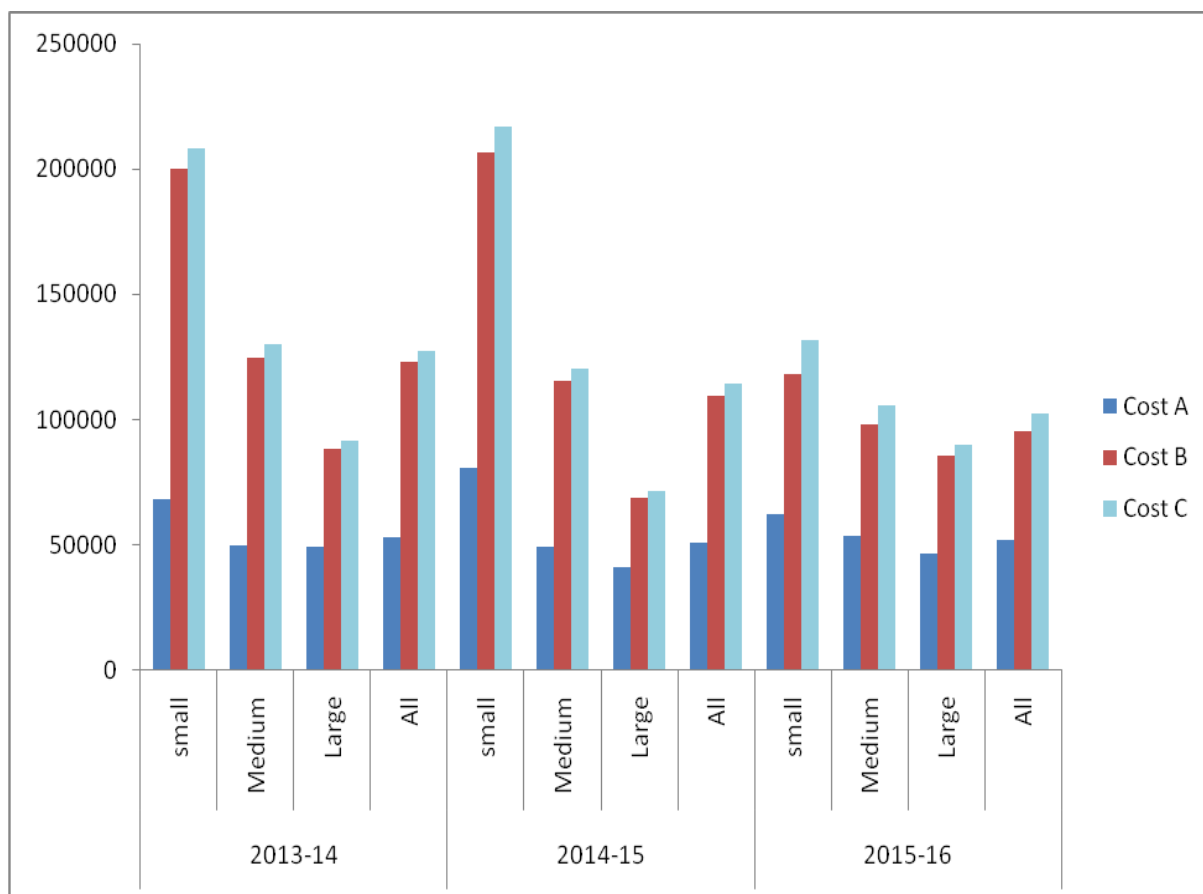
Sex	Holding size class			
	Small	Medium	Large	All Sizes
Male	26.91	29.53	19.16	24.46
Female	46.56	49.75	71.63	58.81
Total	73.47	79.28	90.79	83.27

In Autumn Paddy cultivation 58.81 % of total labour hours shares to female participation.

Table 4: Cost of cultivation of Autumn Paddy per hectare (in Rs.) during 2013-14, 2014-2015 and 2015-16

Concept of cost	Year	Holding size class			
		Small	Medium	Large	All Sizes
Cost ‘A’	2013-14	68502	49906	49543	53142
	2014-15	80834	49331	41198	50895
	2015-16	62547	53693	46428	51823
Cost ‘B’	2013-14	200046	124667	88569	122882
	2014-15	206775	115497	68766	109607
	2015-16	118218	97999	85647	95647
Cost ‘C’	2013-14	208371	129939	91384	127653
	2014-15	216750	120253	71632	114378
	2015-16	131527	105748	90008	102740

Cost of cultivation of Autumn Paddy per hectare (in Rs.) - during 2013-14, 2014-2015 and 2015-16



The last three years data shows a slight fluctuation in cost of paddy cultivation in the state. Cost A per hectre of Autumn Paddy in 2015-16 is increased by Rs.928 as compared to cost in 2014-15.

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 2015-16 for producing one quintal of paddy Rs.1763/- 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 2013-14, 2014-15 and 2015-16

Concept of cost	Year	Holding size class			
		Small	Medium	Large	All Sizes
Cost 'A'	2013-14	2083	1461	1401	1543
	2014-15	2110	1822	1283	1630
	2015-16	2019	1698	1738	1763
Cost 'B'	2013-14	6084	3650	2505	3569
	2014-15	5398	4265	2142	3511
	2015-16	3817	3098	3204	3254
Cost 'C'	2013-14	6337	3804	2585	3708
	2014-15	5658	4441	2231	3664
	2015-16	4247	3343	3367	3495

Out put

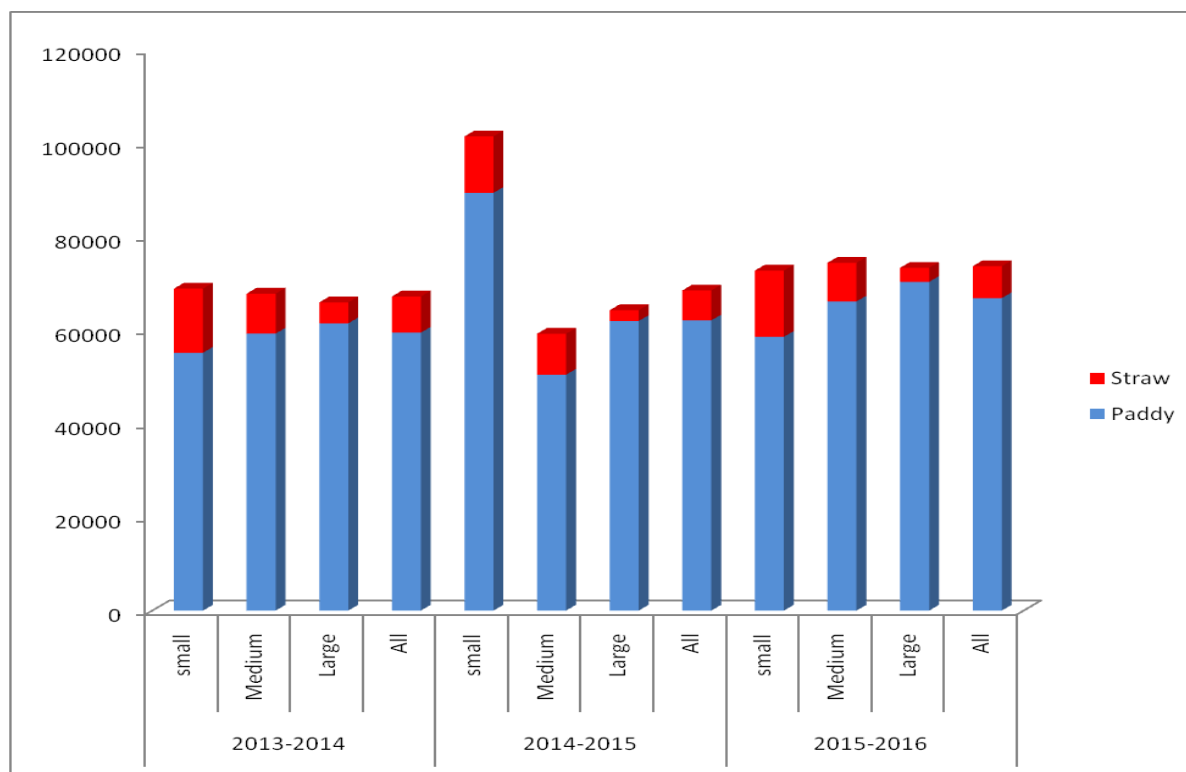
Details of product and by-product per hectare in Autumn Paddy during the last three years are given below.

Table 6: Value of product and by-product per hectare (in Rs.) of Autumn Paddy during 2013-14, 2014-15 and 2015-16

Year	Product/ By product	Holding size class			
		Small	Medium	Large	All size
2013-14	Paddy	55177	59280	61473	59475
	Straw	13728	8550	4480	7743
	Total	68905	67830	65953	67218
2014-15	Paddy	89394	50481	61966	62099
	Straw	12079	8765	2315	6413
	Total	101473	59246	64281	68512
2015-16	Paddy	63951	70589	74180	71172
	Straw	14873	8900	3689	7503
	Total	78824	79489	77870	78675

Per hectare value of product and by product in Autumn season increased considerably during 2015-16 compared to last two years. Percentage change in value of product and by product between the year 2013-14 and 2015-16 is 17.04%, but in the same period cost decreased by 2.48% only for Cost A

**VALUE PRODUCT AND BY PRODUCT PER HECTARE OF AUTUMN PADDY DURING
2013-2014, 2014-2015 & 2015-2016**



2.1.2 Paddy-Winter (Mundakan) during 2015-16

During 2015-16 cost of cultivation study on winter paddy was conducted in 835 holdings according to the size class by covering 767.30 hectare of land. The average area per holding during the season under study is 0.92 hectare. In winter season area per holding in large size class is 3.77 hectare and in small size class it is only 0.23 hectare, area per holding is increased when compared to 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	395	90.20	11.76	0.23
Medium	329	258.90	33.74	0.79
Large	111	418.20	54.50	3.77
Total	835	767.30	100.00	0.92

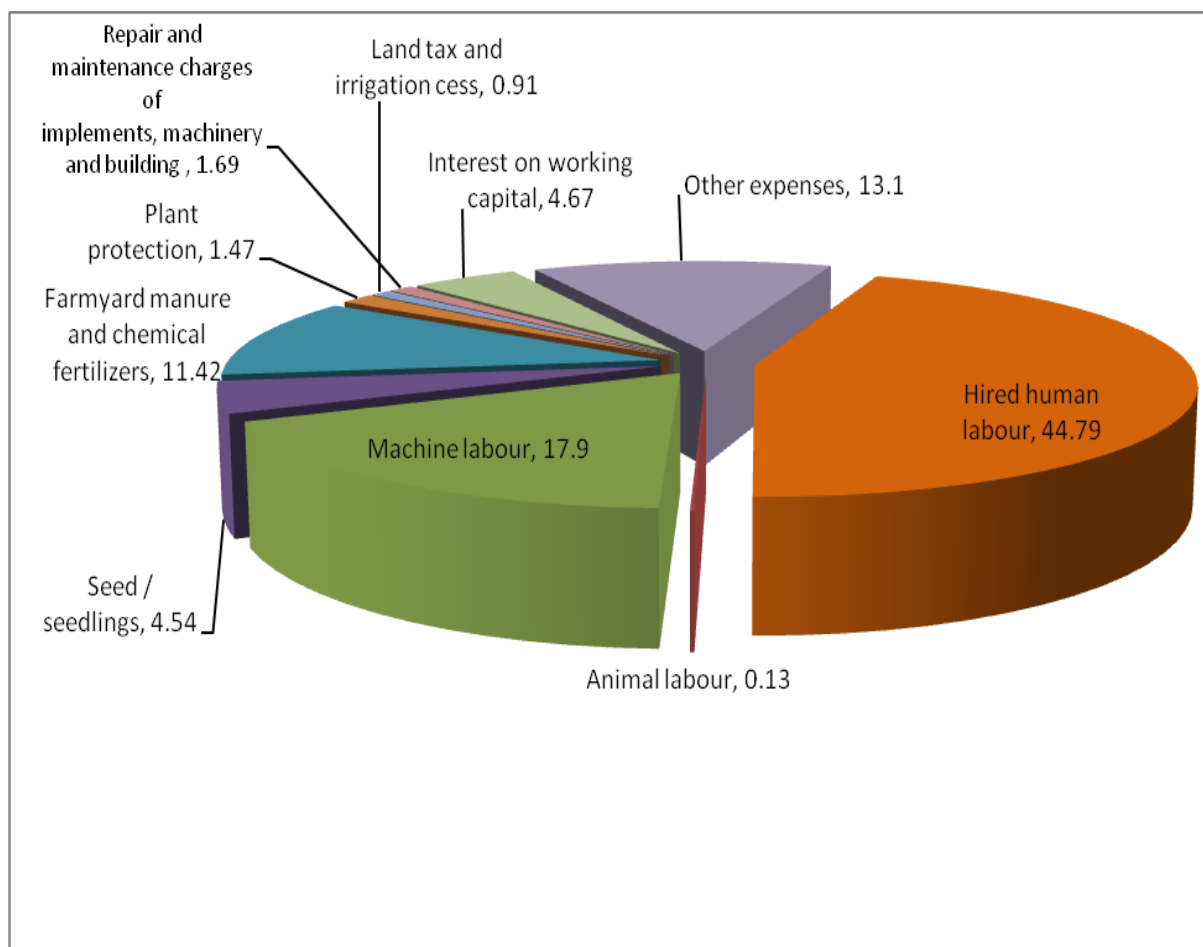
Cost of Cultivation

In Cost A, the paid out cost actually incurred by the cultivator, the major share of the cost component was hired human labour. It constitutes 44.79% per cent. Another two major contributing factor in cost are machine labour and other expences which constitutes 17.90 % and 13.10 % respectively. Farmyard manure and chemical fertilizers accounts was 11.42 %. By considering the various cost component of winter- paddy cultivation of total Cost A, it can be seen that per hectare cost for cultivating paddy is Rs.55044/-. Considerable reduction in hired human labour component is reported in winter season during 2015-16. Cost difference in human hired labour between small and large size class is Rs 11919/-

Table 8: Cost of cultivation per hectare (in Rs.) of Paddy (Winter)

Sl No	Components	Holding size Class			
		Small	Medium	Large	All Size
1	Hired human labour	32662	28165	20743	24656
2	Animal labour	116	113	36	72
3	Machine labour	8072	9453	10483	9851
4	Seed / seedlings	2369	2292	2652	2497
5	Farmyard manure and chemical fertilizers	7998	7426	5207	6286
6	Plant protection	755	652	918	809
7	Land tax and irrigation Cess	235	389	631	502
8	Repair and maintenance charges of implements, machinery and building	1826	493	382	589
9	Interest on working capital	2848	2685	2437	2569
10	Other expenses	4992	5590	8702	7213
11	Total Cost 'A' (1-10)	61873	57258	52191	55044
12	Interest on fixed capital	1459	810	419	674
13	Cost 'B1' (11+12)	63332	58068	52610	55718
14	Interest on land value	57287	37445	36477	39259
15	Cost 'B' (13+14)	120619	95513	89087	94977
16	Imputed value of household labour	13315	7718	3321	5985
17	Cost 'C' (15+16)	133934	103231	92408	100962

Percentage Distribution of “COST A” per hectare of Winter Paddy during 2015-2016



Sex wise work participation in hired human labours for winter paddy cultivation reveals that 48.37% of work shared by Female whereas 32.90% 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

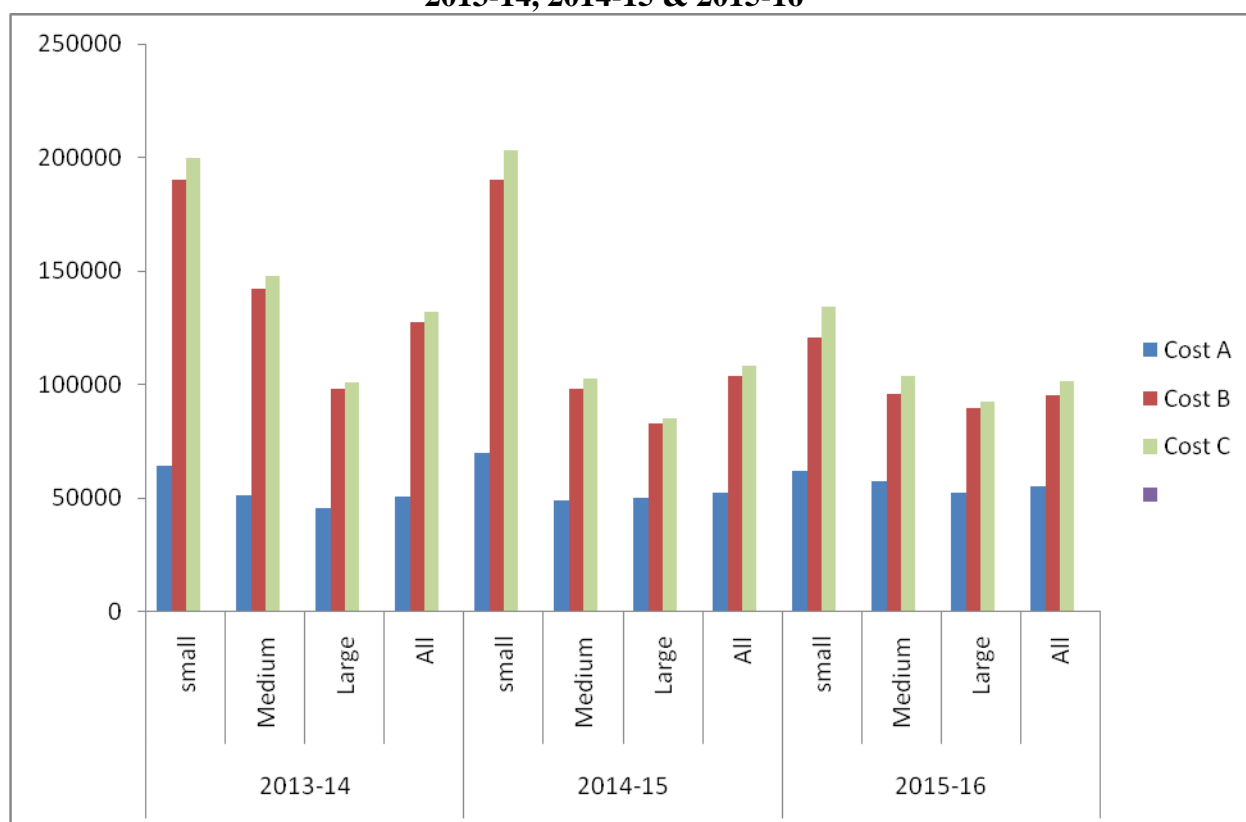
Sex	Holding size class			
	Small	Medium	Large	All Sizes
Male	27.64	28.09	39.99	32.90
Female	44.10	51.78	46.81	48.37
Total	71.74	79.87	86.80	81.27

Table 10: Cost of cultivation of Winter Paddy per hectare (in Rs) during 2013-14, 2014-15 & 2015-16

Concept of cost	Year	Holding Size class			
		Small	Medium	Large	All size
Cost 'A'	2013-14	64190	51101	45399	50166
	2014-15	69658	48750	49652	51851
	2015-16	61873	57258	52191	55044
Cost 'B'	2013-14	190148	141943	97756	127343
	2014-15	190291	98108	82319	103514
	2015-16	120619	95513	89087	94977
Cost 'C'	2013-14	199504	147507	100419	132035
	2014-15	203047	102363	85074	108251
	2015-16	133934	103231	92408	100962

The result of the survey shows an increase of 9.72 percentage of cost during 2015-16 from the year 2013-14. In the bottom size class (small) the cost decreased by 3.61 percentage during the same period

**COST OF CULTIVATION PER HECTARE OF WINTER PADDY DURING
2013-14, 2014-15 & 2015-16**



Cost of production of Winter Paddy

Table 11: Per Quintal Cost (in Rs.) of production of Winter Paddy during 2013-14, 2014-15 & 2015-16

Concept of cost	Year	Holding size class			
		Small	Medium	Large	All Sizes
Cost 'A'	2013-14	1934	1428	1312	1440
	2014-15	2017	1637	1223	1486
	2015-16	1996	1917	1497	1680
Cost 'B'	2013-14	5734	3968	2825	3655
	2014-15	5511	3296	2027	2965
	2015-16	3890	3198	2555	2901
Cost 'C'	2013-14	6016	4124	2902	3790
	2014-15	5880	3439	2095	3101
	2015-16	4320	3456	2650	3084

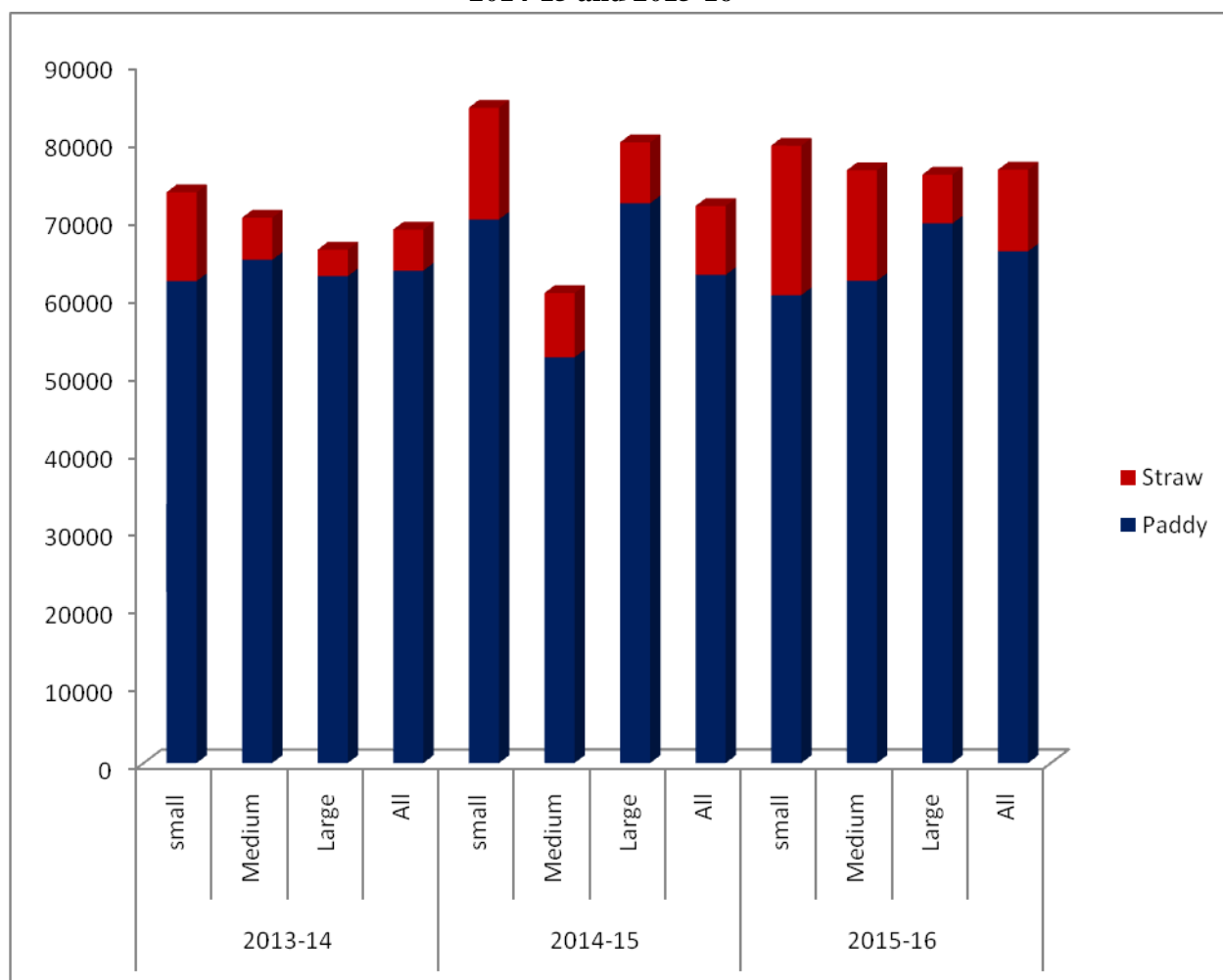
Output

Table 12: Value of Product and Byproduct per hectare (in Rs) of Winter Paddy during 2013-14, 2014-15 and 2015-16

Year	Product/ By product	Holding size class			
		Small	Medium	Large	All size
2013-14	Paddy	62022	64747	62648	63361
	Straw	11415	5419	3414	5282
	Total	73437	70166	66062	68643
2014-15	Paddy	69948	52204	72038	62808
	Straw	14386	8269	7823	8879
	Total	84334	60473	79862	71687
2015-16	Paddy	71691	74171	84616	79564
	Straw	22379	17457	9397	13650
	Total	94070	91627	94012	93214

Compared to autumn 2015-16 value of product and by product per hectre increased marginally during the winter season. Similarly per hectare value of product and by product increased by 35.80 percentage in 2015-16 winter season against the value of 2013-14 in the same season.

Value of Product and By product per hectare (in Rs) of Winter Paddy during 2013-14, 2014-15 and 2015-16



2.1.3 Paddy - Summer (Puncha) during 2015-16

For the cost of cultivation study on summer paddy during 2015-16 the total number of holdings selected was 856. Number of holdings selected in large holding size is 81. 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	353	80.80	12.94	0.23
Medium	422	206.30	33.05	0.49
Large	81	337.20	54.01	4.16
All Size	856	624.30	100.00	0.73

The above table reveals that the total area under cultivation in the selected sample holdings covers to 624.30 hectares and the average size of a holding is 0.73 hectare. In the large size class the average area per holding is 4.16 hectare where as in small size class area per holding is 0.23 hectare only.

Cost of Cultivation

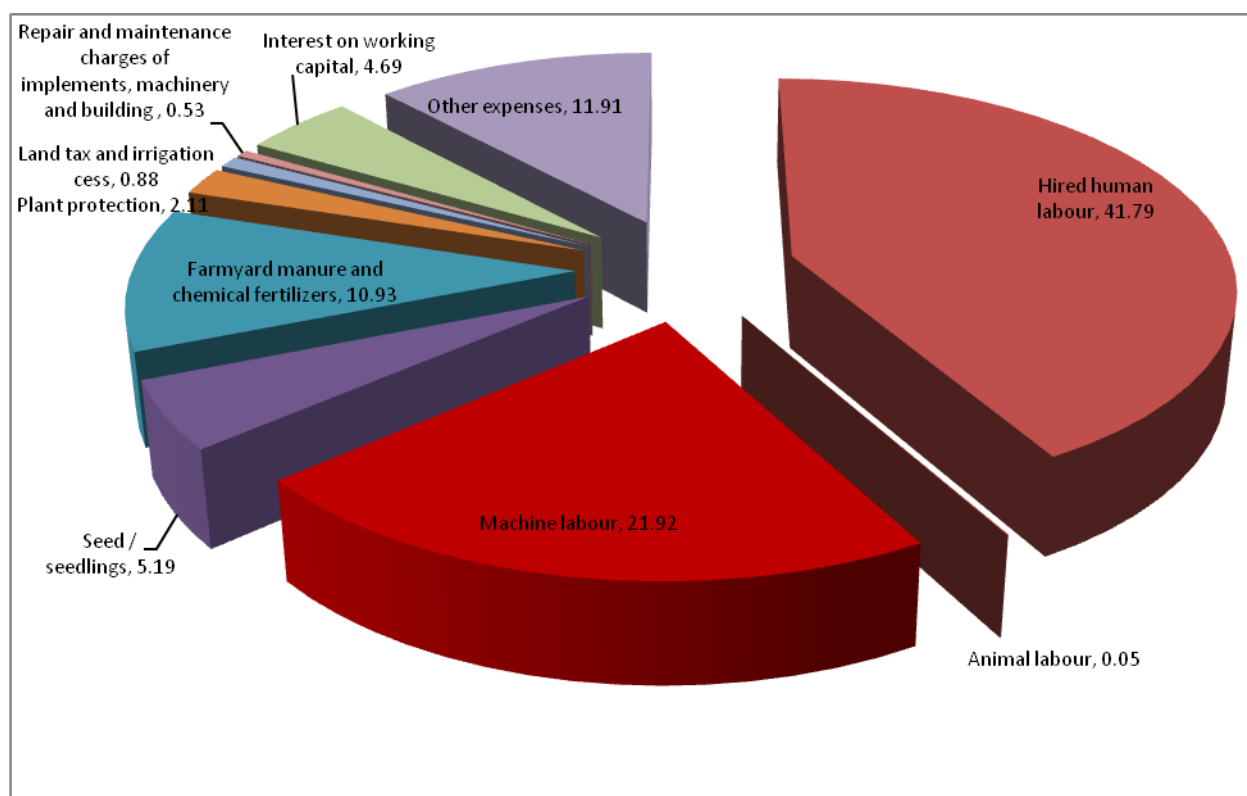
Cost of cultivation of summer paddy per hectare is estimated as Rs. **58555/-** when cost 'A' is considered. Component wise holding size class details are presented below:

Table 14: Cost of Cultivation per hectare (in Rs.) of Paddy (Summer)

Sl No	Components	Holding size Class			
		Small	Medium	Large	All Size
1	Hired human labour	31145	25468	22245	24470
2	Animal labour	146	23	0	27
3	Machine labour	8700	11886	14414	12834
4	Seed / seedlings	2622	2864	3247	3039
5	Farmyard manure and chemical fertilizers	7755	6133	6240	6402
6	Plant protection	651	1044	1497	1237
7	Land tax and irrigation Cess	238	283	725	515
8	Repair and maintenance charges of implements, machinery and building	1232	397	34	311
9	Interest on working capital	2803	2705	2763	2749
10	Other expenses	5039	6681	7616	6971
11	Total Cost 'A' (1-10)	60331	57484	58781	58555
12	Interest on fixed capital	1225	551	122	408
13	Cost 'B1' (11+12)	61556	58035	58903	58963
14	Interest on land value	43035	45415	43168	43894
15	Cost 'B' (13+14)	104591	103450	102071	102857
16	Imputed value of household labour	16149	8427	2559	6269
17	Cost 'C' (15+16)	120740	111877	104630	109126

Out of the total cost incurred for crop husbandry more than 41.79 percent cost goes to human labour component. Similarly compare to last two seasons a slight increase in total cost during the summer season is reported.

Percentage Distribution of “COST A” per hectare of summer Paddy during 2015-16



In summer paddy cultivation hired female labour participation accounted as 45.14 % and that of male labour participation is 34.20 % to the total labour hours. Details are given below:

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

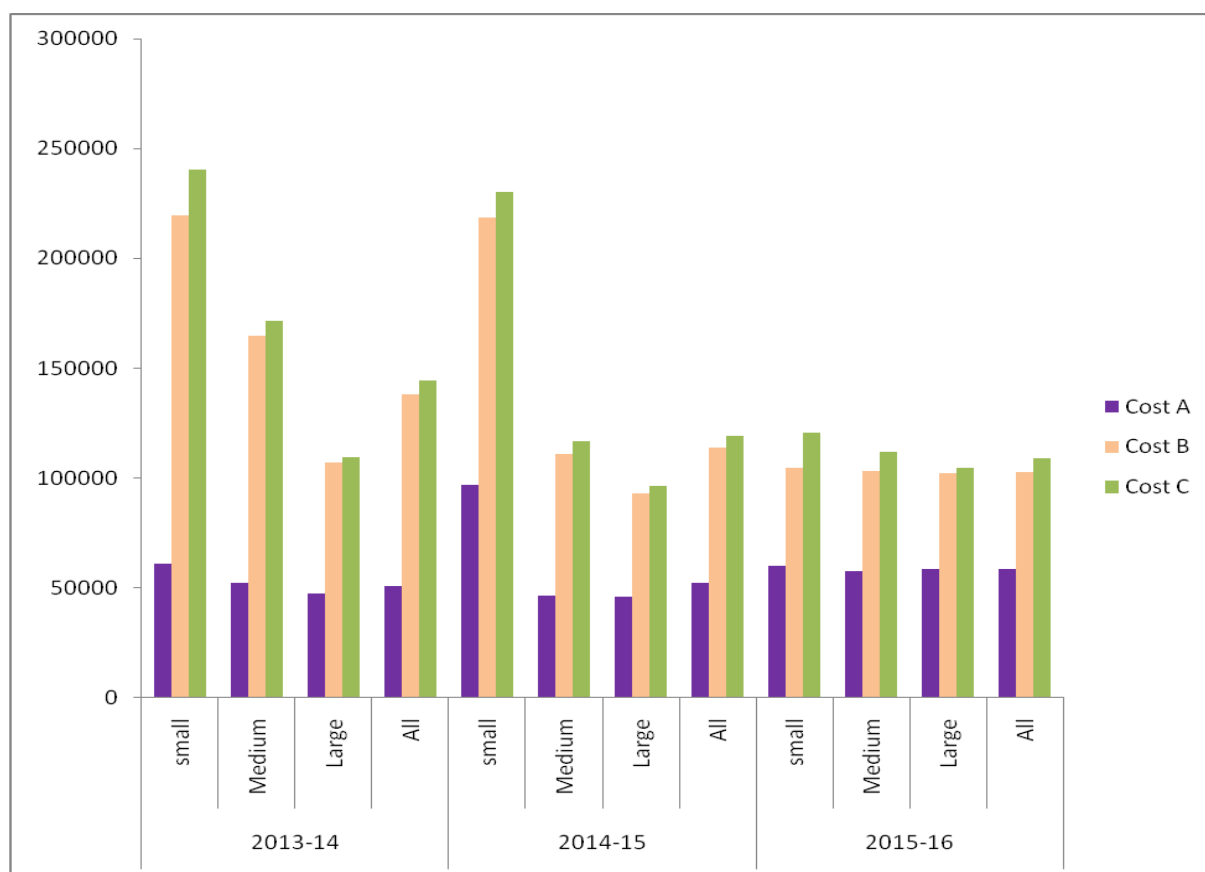
Sex	Holding size class			
	Small	Medium	Large	All Sizes
Male	25.80	31.83	40.62	34.20
Female	38.68	43.64	49.79	45.14
Total	64.47	75.46	90.41	79.34

Table 16: Cost of Cultivation of Summer Paddy per hectare (in Rs) during 2013-14, 2014-15 and 2015-16

Concept of cost	Year	Holding Size class			
		Small	Medium	Large	All size
Cost ‘A’	2013-14	61080	52445	47498	50674
	2014-15	96904	46645	45958	52312
	2015-16	60331	57484	58781	58555

Cost 'B'	2013-14	219580	164854	107209	138314
	2014-15	218342	110982	93102	114070
	2015-16	104591	103450	102071	102857
Cost 'C'	2013-14	240302	171710	109611	144355
	2014-15	230377	116972	96259	119230
	2015-16	120740	111877	104630	109126

**COST OF CULTIVATION PER HECTARE OF SUMMER PADDY DURING
2013-14, 2014-15 & 2015-16**



Output

Table 17: Per Quintal Cost (in Rs.) of production of Summer Paddy during 2013-14, 2014-15 & 2015-16

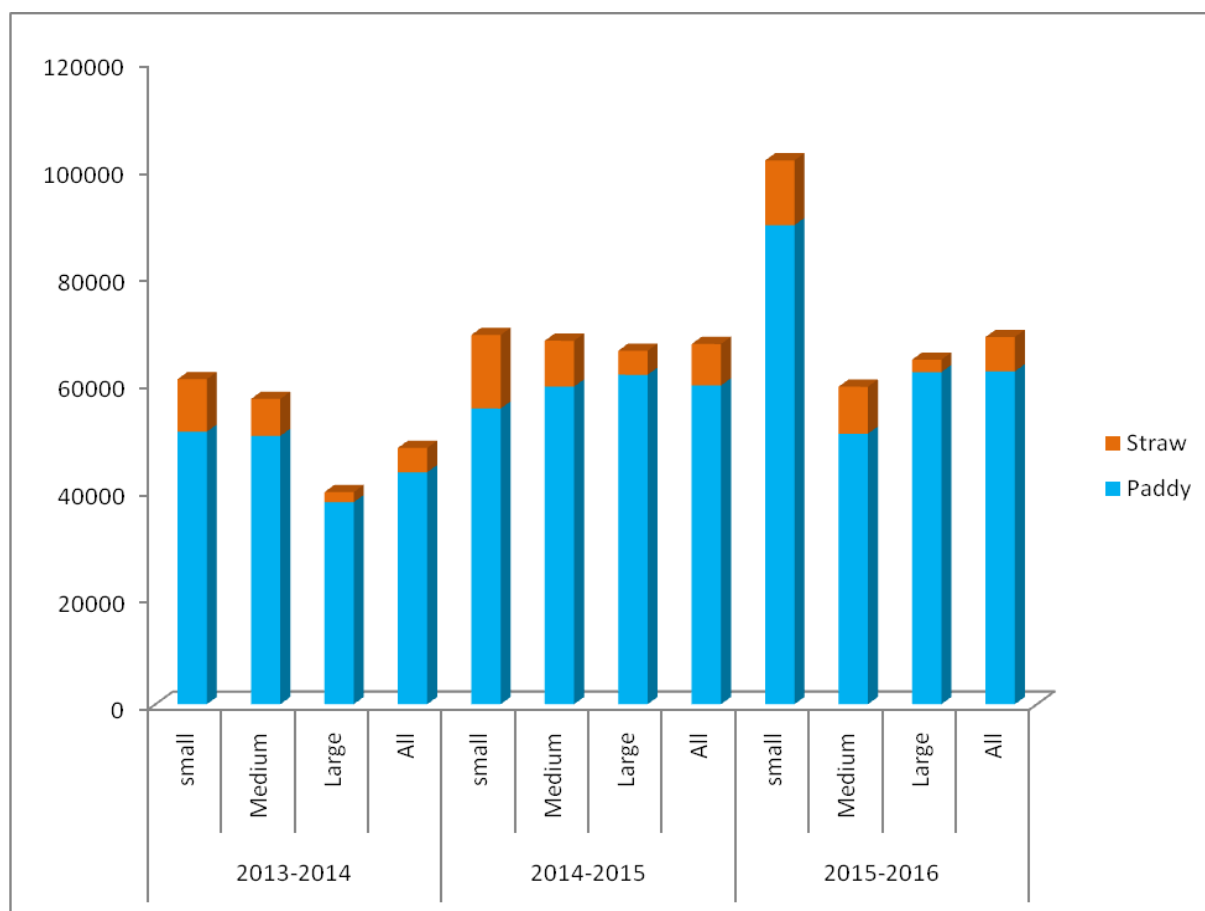
Concept of cost	Year	Holding size class			
		Small	Medium	Large	All Sizes
Cost 'A'	2013-14	2123	1442	1167	1395
	2014-15	2098	1592	1594	1681
	2015-16	1748	1414	1291	1379
Cost 'B'	2013-14	5923	4771	2981	3954
	2014-15	4724	3787	3228	3667
	2015-16	3027	2543	2242	2422
Cost 'C'	2013-14	6423	4974	3054	4130
	2014-15	4984	3991	3337	3833
	2015-16	3495	2750	2298	2570

Above table reveals that for producing one quintal of paddy in summer season an amount of Rs 1379/- is required when cost 'A' is considered. Per hectare value of paddy produced during the season is calculated as **Rs.88832/-** and the value of by-product viz. straw is estimated as **Rs.8037/-**

Table 18: Value of Product and by product per hectare (in Rs) of Summer Paddy during 2013-14, 2014-15 and 2015-16

Year	Product/ By product	Holding size class			
		Small	Medium	Large	All size
2013-14	Paddy	78658	64315	62492	65094
	Straw	10586	5995	4058	5456
	Total	89244	70310	66550	70550
2014-15	Paddy	100589	61570	63455	67296
	Straw	16882	6944	2789	5857
	Total	117471	68514	66245	73153
2015-16	Paddy	70195	83683	96492	88832
	Straw	18337	8817	5071	8037
	Total	88531	92501	101563	96869

Value of Product and Byproduct per hectare (in Rs) of Summer Paddy during 2013-14, 2014-15 and 2015-16



2.2 Coconut during 2015-16

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 prevalence of high cost involved to the cultivation. To conduct the study 1220 sample holdings selected in the state from the different holdings size classes, the average area per holding was 0.43 hectare. Details of the study conducted during 2015-16 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	434	65.00	12.37	0.15
Medium	607	221.10	42.07	0.36
Large	179	239.40	45.56	1.34
Total	1220	525.50	100.00	0.43

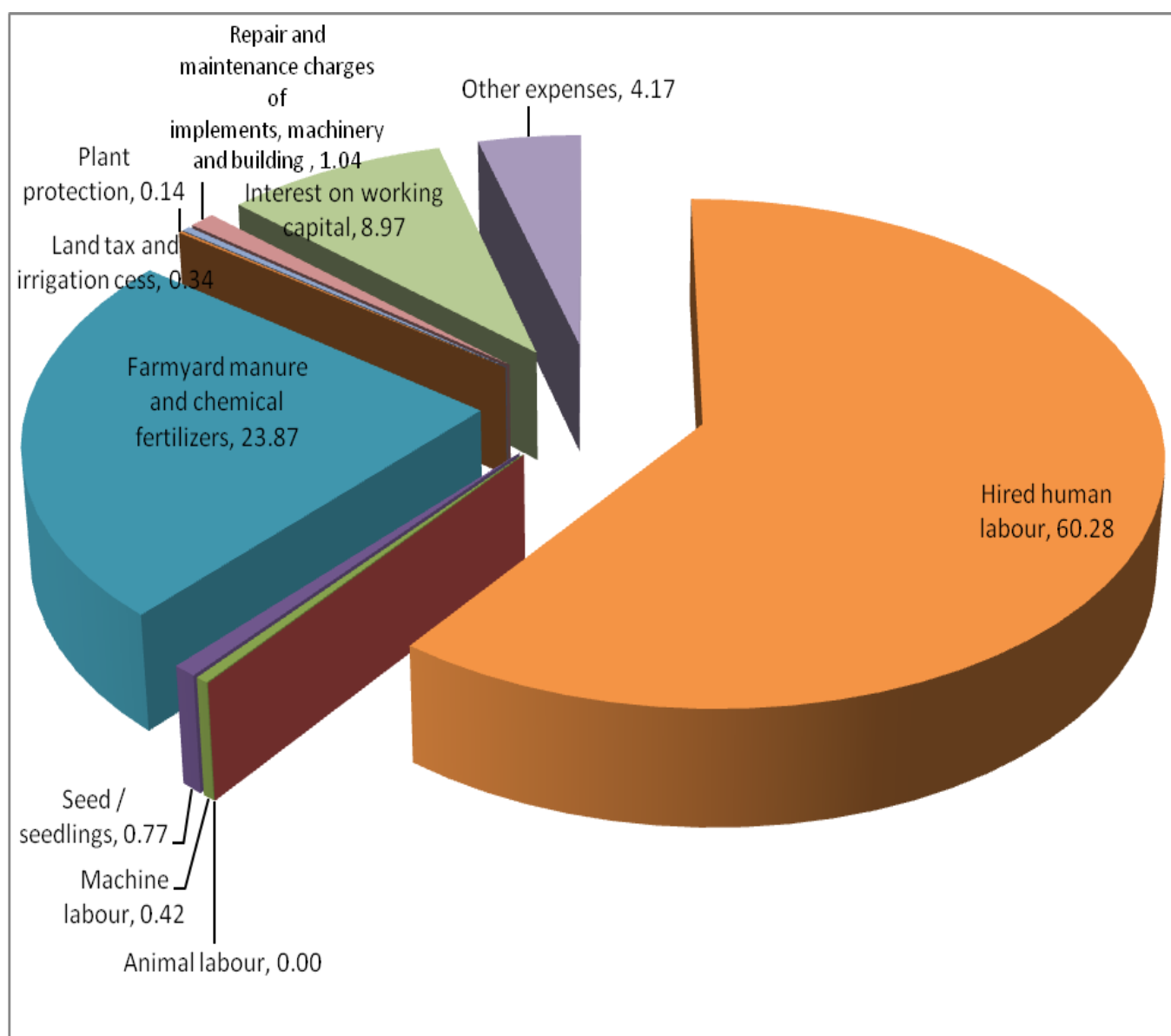
Cost of Cultivation

Cost per hectare for cultivating coconut during 2015-16 was Rs 61429/- excluding interest on fixed capital, land value and value of household labour. Out of this 60.28% of total cost is for the component of hired human labour and 23.87 % for farmyard manure and chemical fertilizer.

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

Sl No	Components	Holding size Class			
		Small	Medium	Large	All Size
1	Hired human labour	34389	37275	37523	37028
2	Animal labour	0	0	0	0
3	Machine labour	197	90	436	261
4	Seed / seedlings	843	592	260	472
5	Farmyard manure and chemical fertilizers	14165	15003	14491	14666
6	Plant protection	105	108	65	88
7	Land tax and irrigation Cess	202	240	177	207
8	Repair and maintenance charges of implements, machinery and building	1713	731	253	635
9	Interest on working capital	5292	5578	5502	5508
10	Other expenses	3219	2714	2246	2564
11	Total Cost 'A' (1-10)	60125	62331	60953	61429
12	Interest on fixed capital	4165	2213	1844	2288
13	Cost 'B1' (11+12)	64290	64544	62797	63717
14	Interest on land value	322857	428378	224628	322491
15	Cost 'B' (13+14)	387147	492922	287425	386208
16	Imputed value of household labour	16872	10346	5643	9017
17	Cost 'C' (15+16)	404019	503268	293068	395225

Percentage Distribution of “COST A” per hectare of Coconut during 2015-16



The following table reveals the 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 9.88 percentage.

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

Sex	Holding Size Class			
	Small	Medium	Large	All Sizes
Male	55.84	64.85	71.64	66.21
Female	6.74	9.67	11.31	9.88
Total	62.59	74.52	82.95	76.09

Table 22: Cost of cultivation of Coconut per hectare (in Rs.) during 2013-14, 2014-15 & 2015-16

Concept of cost	Year	Holding Size class			
		Small	Medium	Large	All size
Cost 'A'	2013-14	67346	48801	45511	49277
	2014-15	59792	53123	50449	52588
	2015-16	60125	62331	60953	61429
Cost 'B'	2013-14	1138762	783297	417487	672434
	2014-15	1009360	825707	451798	666642
	2015-16	387147	492922	287425	386208
Cost 'C'	2013-14	1151024	790388	422344	679039
	2014-15	1023974	833855	456227	673729
	2015-16	404019	503268	293068	395225

Value of output

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

Product/By-product	Holding Size Class			
	Small	Medium	Large	All Sizes
Product	99661	101675	96255	98957
By-Product	3877	3653	3988	3834
Total	103538	105328	100243	102791

The study reveals that the value of output is Rs 102791/- per hectare were as the cost of cultivation per hectare is Rs 61429/-

2.3 Arecanut during 2015-16

Arecanut is one among the cash crops cultivating in the state. Similar to some other crops the area of this crop is shrinking on varied reason especially the cost of cultivation. For this study 1218 sample holding were selected under three holdings size classes namely small, medium and large. The average area per holding was 0.19 hectare and the total area under the crop in the sample was 225.90 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	1016	68.40	30.28	0.07
Medium	223	81.70	36.17	0.37
Large	70	75.80	33.55	1.08
All size	1218	225.90	100	0.19

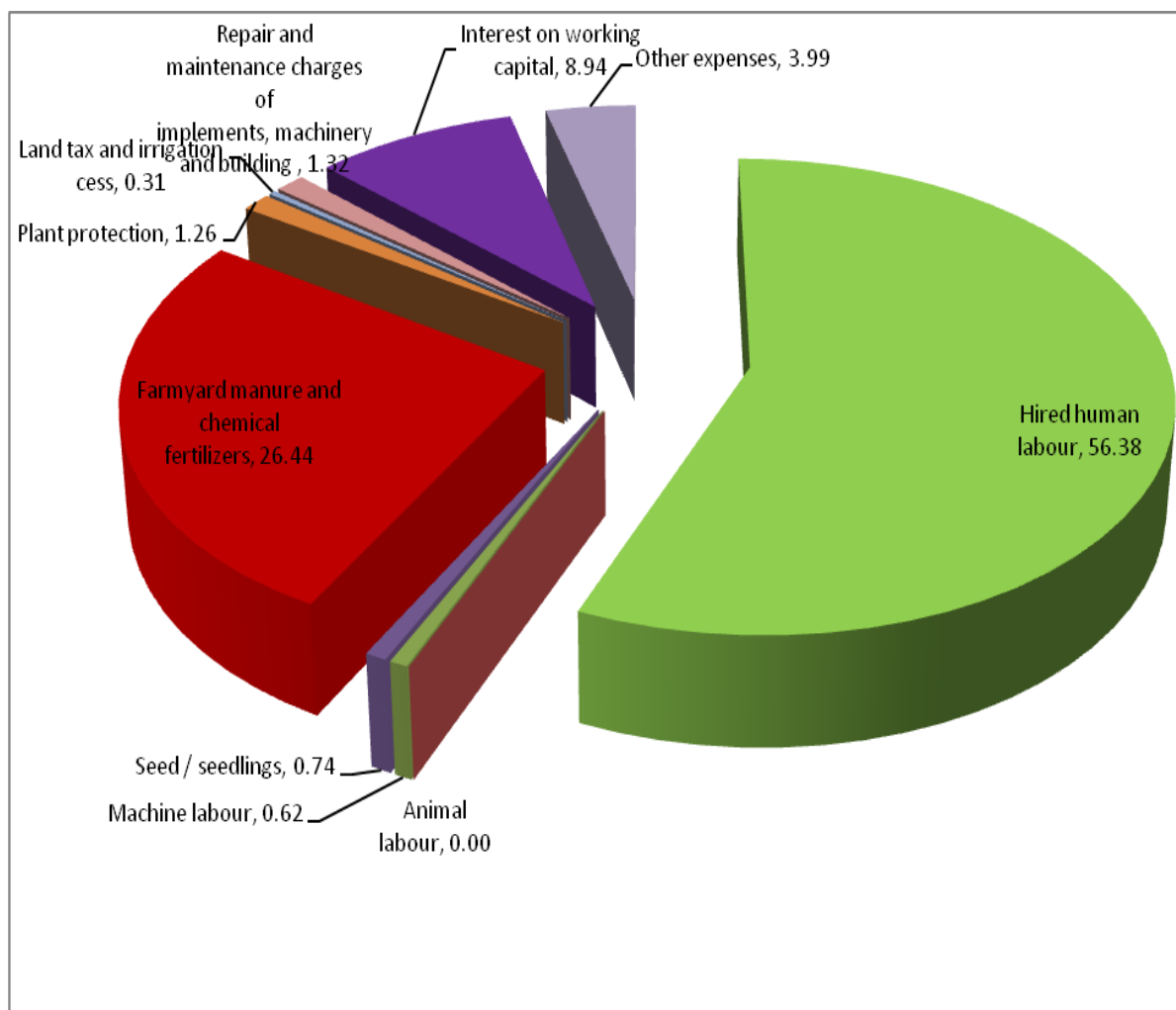
Cost of Cultivation

The different cost components of Arecanut cultivation is given below: Per hectare cost expenses is worked out as Rs.68723/- excluding interest on fixed capital, interest on land value and household labour components. Out of this 56.38 % cost is for hired human labour and 26.44% for farmyard manure and chemical fertilizers.

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

Sl No	Components	Holding size Class			
		Small	Medium	Large	All Size
1	Hired human labour	29767	35596	50308	38749
2	Animal labour	0	0	0	0
3	Machine labour	99	78	1089	423
4	Seed / seedlings	783	607	148	507
5	Farmyard manure and chemical fertilizers	13530	16646	24030	18171
6	Plant protection	210	806	1520	864
7	Land tax and irrigation Cess	207	239	191	213
8	Repair and maintenance charges of implements, machinery and building	1629	693	490	909
9	Interest on working capital	4676	5642	8024	6146
10	Other expenses	2367	2685	3141	2741
11	Total Cost 'A' (1-10)	53268	62992	88941	68723
12	Interest on fixed capital	8876	2942	2345	4542
13	Cost 'B1' (11+12)	62144	65934	91286	73265
14	Interest on land value	202275	138145	121969	152189
15	Cost 'B' (13+14)	264419	204079	213255	225454
16	Imputed value of household labour	21062	11222	8962	13453
17	Cost 'C' (15+16)	285481	215301	222224	238907

Percentage Distribution of “COST A” per hectare of arecanut during 2015-16



The following table illustrates the work participation of arecanut cultivation. It shows that out of 70.53 per cent of the total labour hours 15.83% has been shared by females and 54.69 % has been shared by males.

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

Sex	Holding size class			
	Small	Medium	Large	All Sizes
Male	44.76	57.50	60.62	54.69
Female	12.20	15.92	18.91	15.83
Total	56.96	73.42	79.53	70.53

Table 27: Cost of Cultivation of Arecanut per hectare (in Rs) during 2013-14, 2014-15 and 2015-16

Concept of cost	Year	Holding Size class			
		Small	Medium	Large	All size
Cost 'A'	2013-14	52681	47424	45344	47912
	2014-15	54441	52534	54132	53665
	2015-16	53268	62992	88941	68723
Cost 'B'	2013-14	752025	488110	329434	490936
	2014-15	662058	458842	420574	498585
	2015-16	264419	204079	213255	225454
Cost 'C'	2013-14	761684	494898	335224	498045
	2014-15	674279	467912	424558	506531
	2015-16	285481	215301	222224	238907

Value of Out put

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

The estimated value of output per hectare is Rs.209399/- against the per hectare cost A of cultivation is Rs 68723/.

Holding Size Class			
Small	Medium	Large	All Sizes
169095	216185	238604	209399

2.4 Tapioca during 2015-16

Area under the crop in this study was 184.90 hectare from 881 holdings.

Table 29: Area and Number of Holdings under Tapioca cultivation

Size class	No of selected holdings	Area under the crop in the sample (ha)	Percentage to total area of Selected holdings	Area per holding (ha)
Small	582	52.20	28.23	0.09
Medium	262	88.70	47.97	0.34
Large	37	44.00	23.80	1.19
All Size	881	184.90	100	0.21

The average size of a selected holding is 0.21 hectare

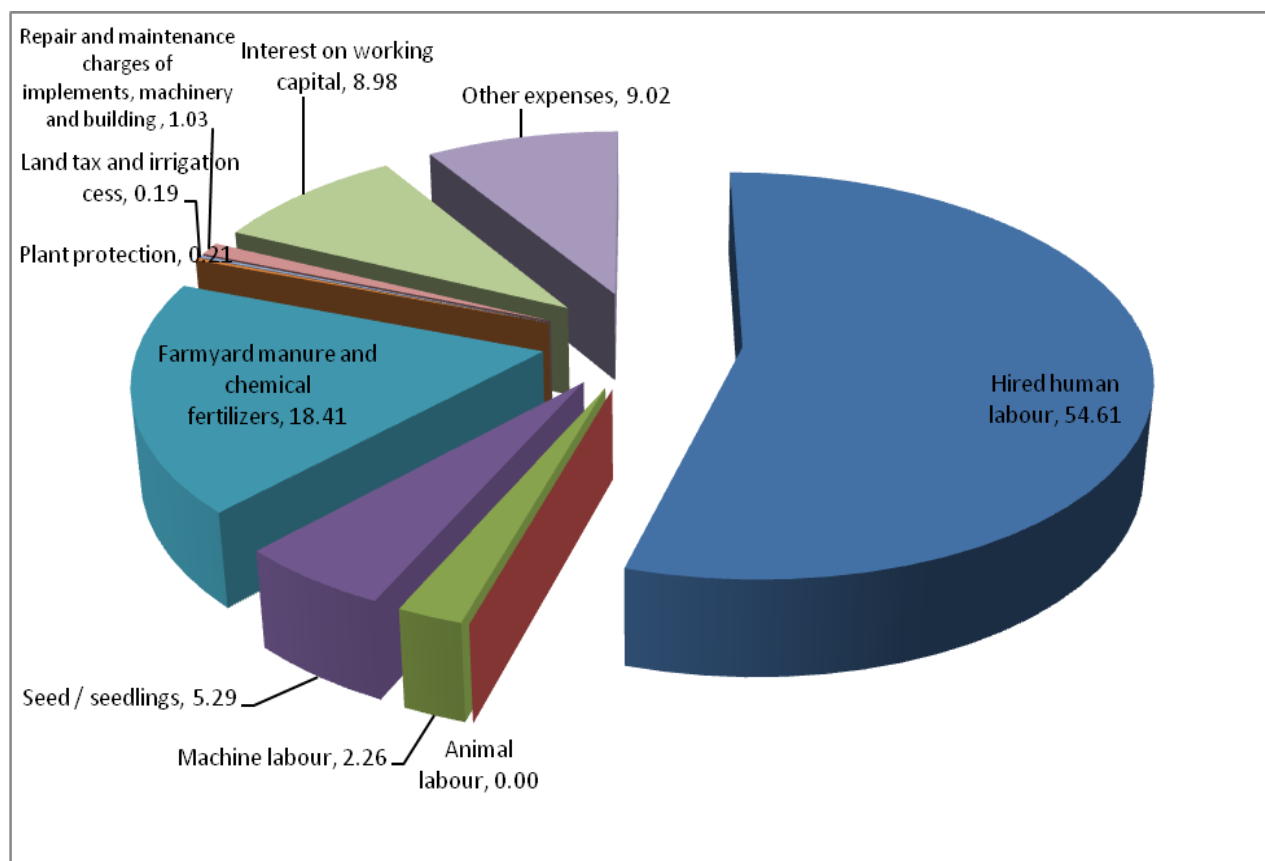
Cost of Cultivation

When Cost A is considered, per hectare cost of cultivation of tapioca is worked out as Rs. **85382/-** . In this cost A, hired human labour cost constituted 54.61% where as farmyard manure and chemical fertilizers shares 18.41%. Interest on working capital and other expenses contribute almost equal share. The cost of cultivation of Tapioca under different concepts is given below.

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

Sl No	Components	Holding size Class			
		Small	Medium	Large	All Size
1	Hired human labour	50929	45729	43315	46627
2	Animal labour	0	0	0	0
3	Machine labour	310	1530	4657	1928
4	Seed / seedlings	4433	4394	4854	4514
5	Farmyard manure and chemical fertilizers	15463	15845	15762	15717
6	Plant protection	121	217	184	182
7	Land tax and irrigation Cess	198	157	118	160
8	Repair and maintenance charges of implements, machinery abuilding	2115	434	324	884
9	Interest on working capital	7750	7524	7858	7667
10	Other expenses	6239	7526	3804	7703
11	Total Cost 'A' (1-10)	87558	83356	36875	85382
12	Interest on fixed capital	6911	1779	1502	3166
13	Cost 'B1' (11+12)	94469	55135	88377	88548
14	Interest on land value	254698	214875	136297	207475
15	Cost 'B' (13+14)	349167	300010	224674	296023
16	Imputed value of household labour	33368	23079	12818	23552
17	Cost 'C' (15+16)	382535	323089	237492	319575

Percentage Distribution of “COST A” per hectare of Tapioca during 2015-16



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

Sex	Holding Size Class			
	Small	Medium	Large	All Sizes
Male	47.84	51.29	54.55	50.85
Female	8.66	13.75	23.59	14.16
Total	56.50	65.04	78.14	65.01

In tapioca cultivation 65.01% of the total human labour hours have been shared by hired human labour.

Table 32: Cost of cultivation of Tapioca per hectare (In Rs.) during 2013-14, 2014-15 and 2015-16

A comparative statement for 2013-14, 2014-15 and 2015-16 for cost of cultivation of different concept is given below.

Concept of cost	Year	Holding Size class			
		Small	Medium	Large	All size
Cost 'A'	2013-14	69681	56871	66210	62703
	2014-15	77514	65479	70322	69925
	2015-16	87558	83356	86875	85382
Cost 'B'	2013-14	736862	375717	324687	457328
	2014-15	691551	453045	284333	473573
	2015-16	349167	30010	224674	296023
Cost 'C'	2013-14	762144	390753	336248	474145
	2014-15	710483	467612	290009	487033
	2015-16	382535	323089	232492	319575

Value of Out put

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

Holding Size Class			
Small	Medium	Large	All Sizes
231019	216683	199521	216662

The value of out put per hectre of Tapioca is estimated as Rs.216662/- where as the cost of cultivation per hectre, the paid out cost actually incurred by the cultivators is only Rs. 85382/-.

2.5 Banana during 2015-16

To study the cost of cultivation on banana 864 sample holdings were selected by covering an area of 218.80 hectares under three different holding size classes with an average area per holding of 0.25 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	517	46.70	21.34	0.09
Medium	280	97.20	44.42	0.35
Large	67	74.90	34.23	1.12
All Size	864	218.80	100.0	0.25

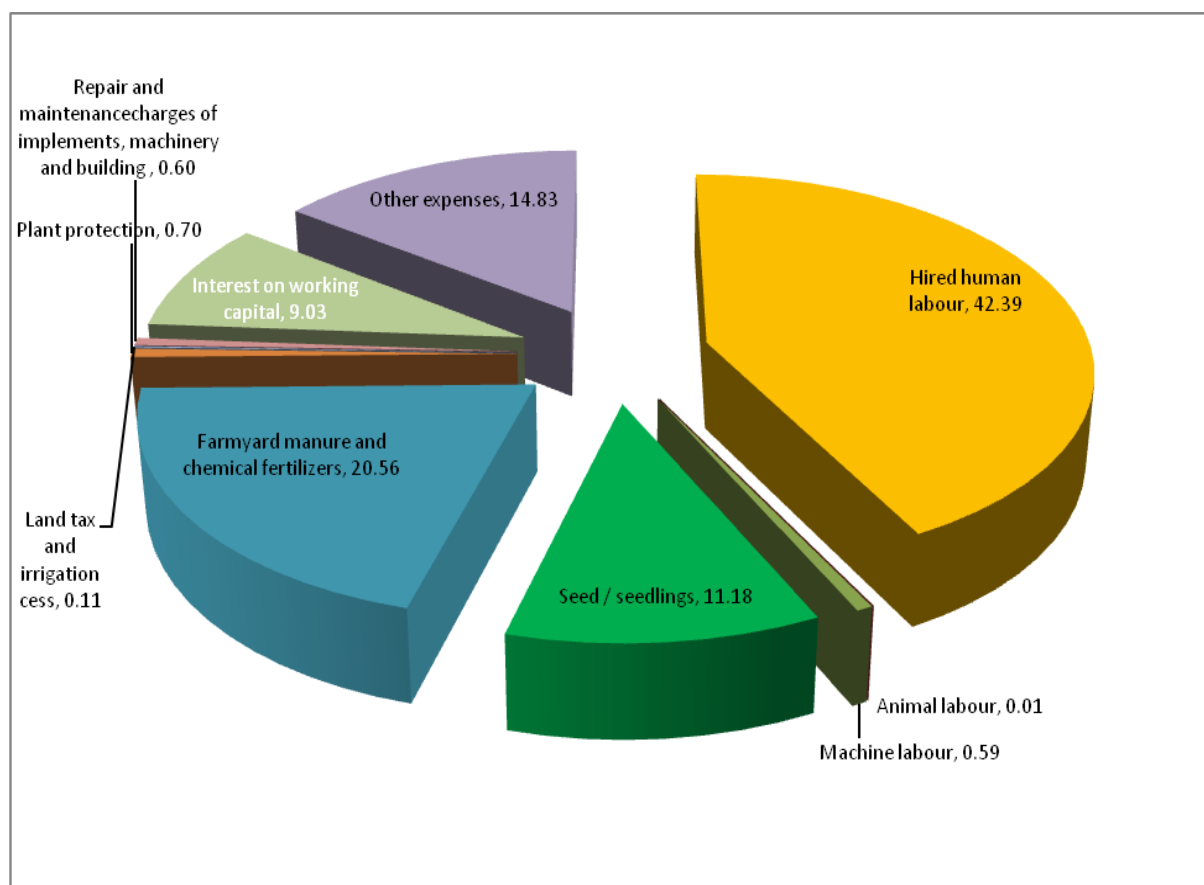
Cost of Cultivation

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.176400/-. Out of this 42.38% cost involved in hired human labour component, 20.56% cost for farmyard manure and chemical fertilizers and Seed/Seedlings constitute 11.18 % and other expenses shares 14.83%.

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

Sl No	Components	Holding size Class			
		Small	Medium	Large	All Size
1	Hired human labour	69670	70216	83874	74767
2	Animal labour	66	0	0	14
3	Machine labour	547	1092	1308	1049
4	Seed / seedlings	20862	20381	18154	19723
5	Farmyard manure and chemical	37936	37363	33802	36269
6	Plant protection	1240	959	1579	1231
7	Land tax and irrigation Cess	190	173	243	201
8	Repair and maintenance charges of implements, machinery and building	3485	513	244	1057
9	Interest on working capital	15517	15438	16805	15922
10	Other expenses	24853	24367	29329	26167
11	Total Cost 'A' (1-10)	174366	170502	185338	176400
12	Interest on fixed capital	12384	3064	1137	4402
13	Cost 'B1' (11+12)	186750	173566	186475	180802
14	Interest on land value	218616	160815	161737	173515
15	Cost 'B' (13+14)	405366	334381	348212	354317
16	Imputed value of household labour	53008	32675	22845	33672
17	Cost 'C' (15+16)	458374	367256	371057	387989

Percentage Distribution of “COST A” per hectare of Banana during 2015-16



In Banana cultivation male participation rate (40.81) is higher than that of female (26.68). The percentage distributions are as follows.

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

Sex	Holding Size Class			
	Small	Medium	Large	All Sizes
Male	28.92	34.23	67.75	40.81
Female	5.73	46.57	8.23	26.68
Total	34.65	80.80	75.98	67.48

Table 37: Cost of Cultivation per hectare of Banana (In Rs.) during 2013-14, 2014-15 & 2015-16

A comparative statement for 2013-14, 2014-15 and 2015-16 for cost of cultivation of different concept is given below.

Concept of cost	Year	Holding Size class			
		Small	Medium	Large	All size
Cost 'A'	2013-14	143269	117624	138402	129956
	2014-15	157116	120137	133384	131933
	2015-16	174366	170502	185338	176400
Cost 'B'	2012-13	898049	660241	518808	663645
	2014-15	932294	579448	381082	583240
	2015-16	405366	334381	348212	354317
Cost 'C'	2013-14	931542	685049	538039	688441
	2014-15	975586	603814	395962	608196
	2015-16	458374	367056	371057	387989

Value of out put

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

Holding Size Class			
Small	Medium	Large	All Sizes
427332	412858	436079	423895

During 2015-16 per hectare value of output from banana cultivation is estimated out as **Rs. 452951/-** whereas the cost A per hectre is Rs 176400.

2.6 Pepper during 2015-16

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	722	56.00	43.55	0.08
Medium	158	53.80	41.84	0.34
Large	19	18.80	14.62	0.99
Total	899	128.60	100.00	0.14

Cost of cultivation

The cultivation cost incurred for pepper is entirely different when compared to the cost of paddy and other seasonal crops. Hired human labour cost (57.87%) and the farmyard manure and chemical fertilizer cost (20.64%) are the two major items of expenses for pepper cultivation. Item wise expenses incurred under pepper cultivation are as follows:

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

Sl No	Components	Holding size Class			
		Small	Medium	Large	All Size
1	Hired human labour	35668	29802	42263	34186
2	Animal labour	0	0	0	0
3	Machine labour	8	134	100	74
4	Seed / seedlings	924	4022	2382	2432
5	Farmyard manure and chemical fertilizers	12132	11597	14052	12191
6	Plant protection	354	392	810	437
7	Land tax and irrigation Cess	220	185	311	219
8	Repair and maintenance charges of implements, machinery and building	1717	828	812	1212
9	Interest on working capital	5195	4874	6418	5240
10	Other expenses	2862	2792	4571	3083
11	Total Cost 'A' (1 to 10)	59080	54626	71719	59074
12	Interest on fixed capital	8661	2981	1057	5171
13	Cost 'B1' (11+12)	67741	57607	72776	64245
14	Interest on land value	197953	141003	105618	160597
15	Cost 'B' (13+14)	265694	198610	178394	224842
16	Imputed value of household labour	24394	18768	13685	20471
17	Cost 'C' (15+16)	290088	217378	192079	245313

Percentage Distribution of “COST A” per hectare of Pepper during 2015-16

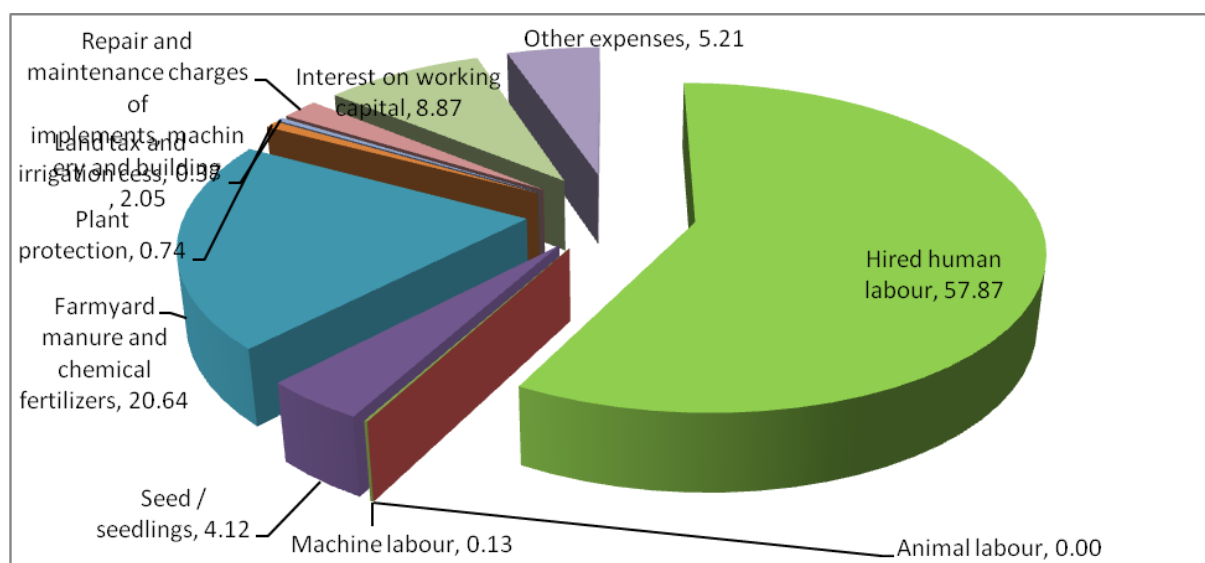


Table 41: Percentage of hired human labour hours to total human labour hours

Sex	Holding size class			
	Small	Medium	Large	All Sizes
Male	44.38	45.85	56.61	47.04
Female	10.85	13.77	20.82	13.65
Total	55.22	59.62	77.44	60.69

Table 42: Cost of cultivation of Pepper per hectare (In Rs.) during 2013-14, 2014-2015 & 2015-16.

A comparative statement for 2013-14, 2014-15 & 2015-16 for cost of cultivation of different concept is given below.

Concept of cost	Year	Holding Size class			
		Small	Medium	Large	All size
Cost 'A'	2013-14	61094	56176	54737	57947
	2014-15	62882	59389	46496	57300
	2015-16	59080	54626	71719	59074
Cost 'B'	2013-14	878407	523468	324855	629578
	2014-15	795464	522466	162110	529326
	2015-16	265694	198610	178394	224842
Cost 'C'	2013-14	901108	542293	329165	646725
	2014-15	814237	536718	170084	543610
	2015-16	290088	217378	192079	245313

Value of out put

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

Holding Size Class			
Small	Medium	Large	All Sizes
284143	318877	444637	322229

During 2015-16 it is estimated that Rs 322229/ has been received as value of output from per hectare pepper cultivation whereas cost A for Cultivation is Rs.59074.

2.7 Ginger during 2015-16

For the cost of cultivation study during 2015-16, 736 sample holdings were selected for the crop ginger and total area covered for study is 96.10 hectare.

Table 44: Area and number of holdings under Ginger 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	639	36.70	38.19	0.06

Medium	80	35.30	36.73	0.44
Large	17	24.10	25.08	1.42
All sizes	736	96.10	100.00	0.13

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 32.62% of the total cost. Seed/seedling and farmyard manure and fertilizer share is 29.46% and 12.77% of total cost of cultivation per hectare.

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

Sl No	Components	Holding size Class			
		Small	Medium	Large	All Size
1	Hired human labour	51586	59172	90400	64038
2	Animal labour	0	0	0	0
3	Machine labour	1019	4222	23743	7856
4	Seed / seedlings	48237	48715	86027	57828
5	Farmyard manure and chemical fertilizers	21607	23752	32318	25062
6	Plant protection	590	1206	3579	1561
7	Land tax and irrigation cess	370	346	216	323
8	Repair and maintenance charges of implements, machinery and building	2129	511	260	1070
9	Interest on working capital	12858	14824	29479	17720
10	Other expenses	5542	11177	58718	20858
11	Total Cost 'A' (1-10)	143938	161925	324740	196316
12	Interest on fixed capital	6737	3988	1039	4310
13	Cost 'B1' (11+12)	150675	167913	325779	200626
14	Interest on land value	174878	84471	126958	129789
15	Cost 'B' (13+14)	325553	252384	452737	330415
16	Imputed value of household labour	44962	17317	12278	26682

17	Cost 'C' (15+16)	370515	269701	465015	357097
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Percentage Distribution of "COST A" per hectare of Ginger during 2015-16

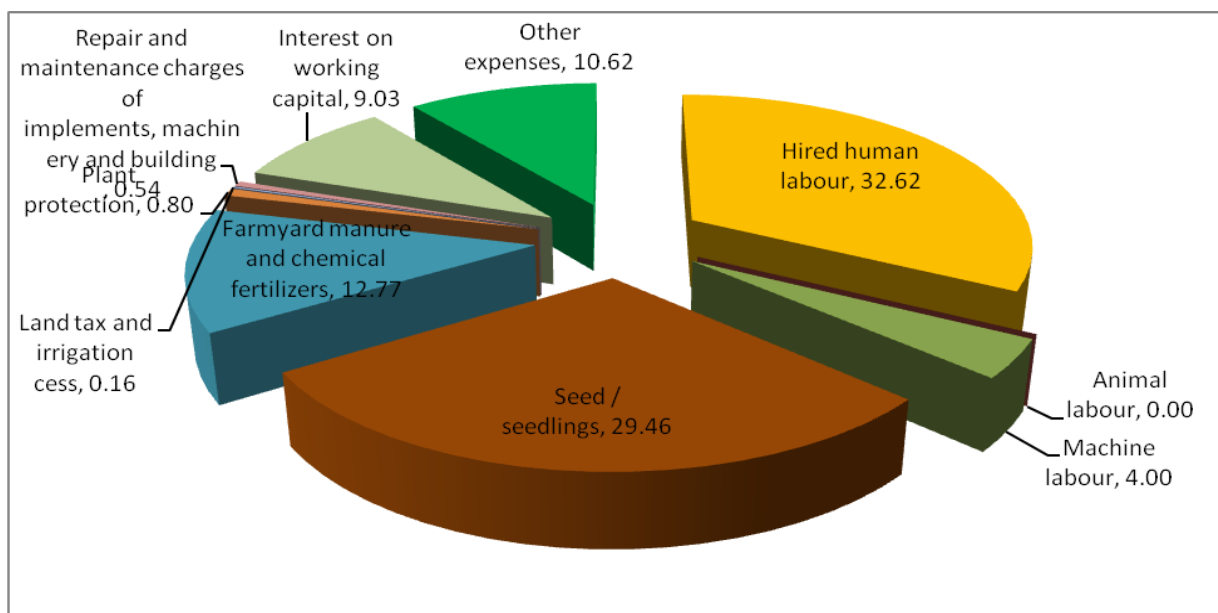


Table 46: Percentage distribution of hired human labour hours to total human labour hours

Sex	Holding size class			
	Small	Medium	Large	All Sizes
Male	37.86	40.01	48.93	42.33
Female	15.86	39.61	41.62	32.26
Total	53.72	79.62	90.55	74.59

Table 47: Cost of cultivation of Ginger per hectare (In Rs.) during 2013-14, 2014-15 and 2015-16

A comparative statement for 2013-14, 2014-15 & 2015-16 for cost of cultivation of different concept is given below.

Concept of cost	Year	Holding Size class			
		Small	Medium	Large	All size
Cost 'A'	2013-14	118624	89266	91544	99827
	2014-15	133624	148987	78910	109816
	2015-16	143938	163925	324740	196316
Cost 'B'	2013-14	755753	382809	387222	508386
	2014-15	788743	419437	318652	480983
	2015-16	325553	252384	452737	330415

Cost 'C'	2013-14	771550	394156	392876	519218
	2014-15	806087	441585	325415	494101
	2015-16	370515	269701	465015	357097

Value of Out put

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

Holding Size Class			
Small	Medium	Large	All Sizes
267137	230399	402612	287423

The per hectare value of output estimated from Ginger cultivation is Rs.287423/- and the cost of cultivation per hectre is Rs 196316/- excluding interest on fixed capital, land value and household labour.

2.8 Turmeric during 2015-16

Sample holdings selected for the cost of cultivation study of turmeric is 717 which distributed among the three holding size classes and total area within the sample holding was 76.30 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	662	55.60	71.47	0.08
Medium	49	16.00	20.57	0.33
Large	6	6.20	7.97	1.03
All size	717	77.80	100.00	0.11

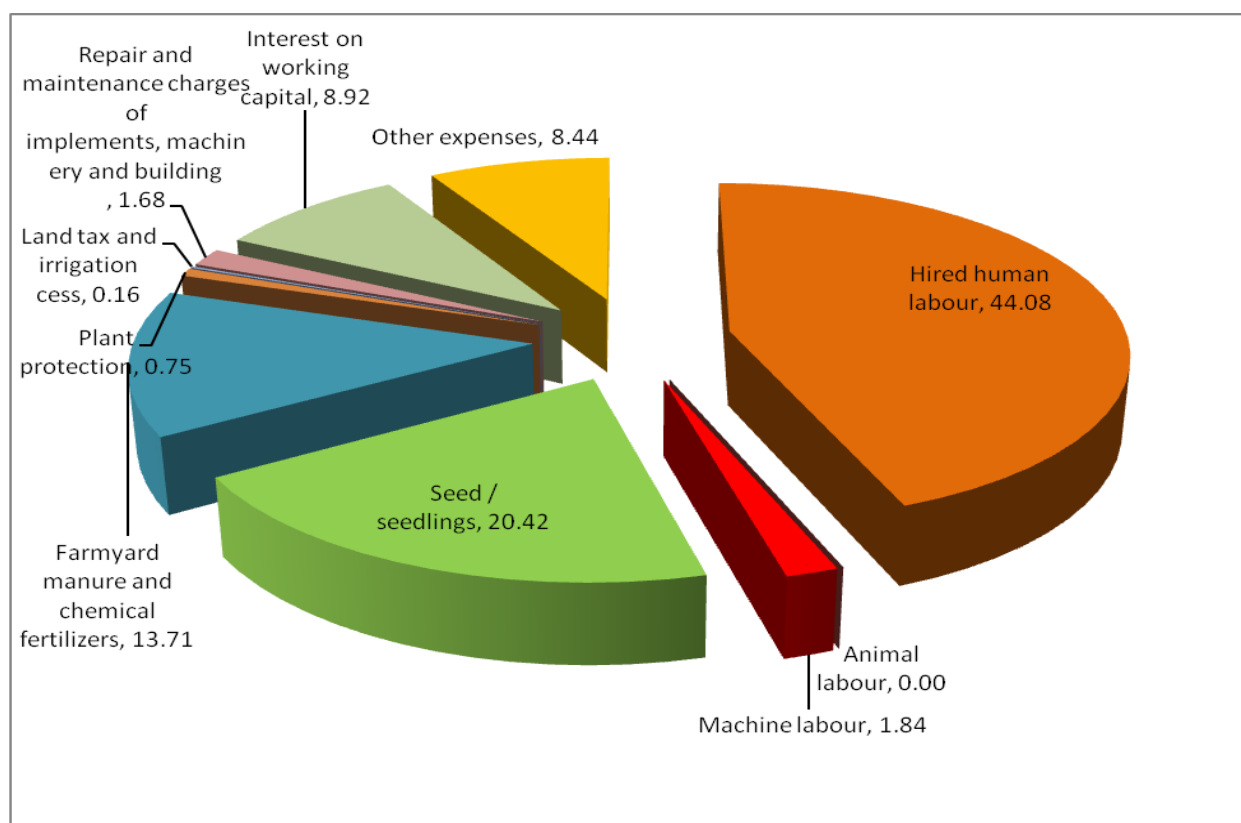
Cost of cultivation

The cash and other kind expenses incurred under Turmeric cultivation is estimated as Rs.73625/-per hectare. Out of this, 44.08% is for hired human labour, 20.42% for seed/seedlings and 13.70% for farmyard manure and fertilizer cost respectively.

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

Sl No	Components	Holding size Class			
		Small	Medium	Large	All Size
1	Hired human labour	21388	57341	66928	32455
2	Animal labour	0	0	0	0
3	Machine labour	273	3957	4277	1354
4	Seed / seedlings	11750	26329	15263	15040
5	Farmyard manure and chemical fertilizers	7105	16057	21319	10090
6	Plant protection	266	1146	1560	551
7	Land tax and irrigation Cess	102	144	216	120
8	Repair and maintenance charges of implements, machinery and building	1575	372	401	1233
9	Interest on working capital	4323	11692	13401	6570
10	Other expenses	2443	12086	24662	6212
11	Total Cost 'A' (1-10)	49225	129124	148027	73625
12	Interest on fixed capital	5438	7446	538	5460
13	Cost 'B1' (11+12)	54663	136570	148565	79085
14	Interest on land value	98486	143465	241524	119224
15	Cost 'B' (13+14)	153149	280035	390089	198309
16	Imputed value of household labour	27587	22844	26551	26525
17	Cost 'C' (15+16)	180736	302879	416640	224834

Percentage Distribution of “COST A” per hectare of Turmeric during 2015-16



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			
	Small	Medium	Large	All Sizes
Male	30.52	38.62	29.62	32.81
Female	12.08	36.83	46.61	25.13
Total	42.60	75.46	76.24	57.94

Table 52: Cost of cultivation of Turmeric per hectare (In Rs.) during 2013-14, 2014-15 & 2015-16

A comparative statement for 2013-14, 2014-2015 & 2015-16 for cost of cultivation of different concept is given below.

Concept of cost	Year	Holding Size class			
		Small	Medium	Large	All size
Cost 'A'	2013-14	77148	90270	125423	85016
	2014-15	85725	95509	125577	91467
	2015-16	49225	129124	148027	73625
Cost 'B'	2013-14	666975	372635	238260	530131
	2014-15	579838	336282	221536	471004
	2015-16	153149	280035	390089	198309
Cost 'C'	2013-14	496747	304916	209910	391584
	2014-15	598516	354480	225243	488701
	2015-16	180736	302879	416640	224834

In 2015-16 cost of cultivation of turmeric per hectare is reduced when compared to previous years. The component wise analysis reveals that hired human labour cost is decreased. As the labour charge is very high, cultivators are interested to reduce the labour cost.

Output

The per hectare value of output received from turmeric cultivation is estimated as Rs 149826/- during the year 2015-16 and cost of cultivation is estimated as Rs 73625/- 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
113973	223645	279041	149826

2.9 Pineapple during 2015-16

In the cost of cultivation study on pineapple 341 sample holdings were selected by covering area 389.00 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	113	7.60	1.95	0.07
Medium	97	42.70	10.98	0.44
Large	131	338.70	87.07	2.59
All Size	341	389.00	100.00	1.14

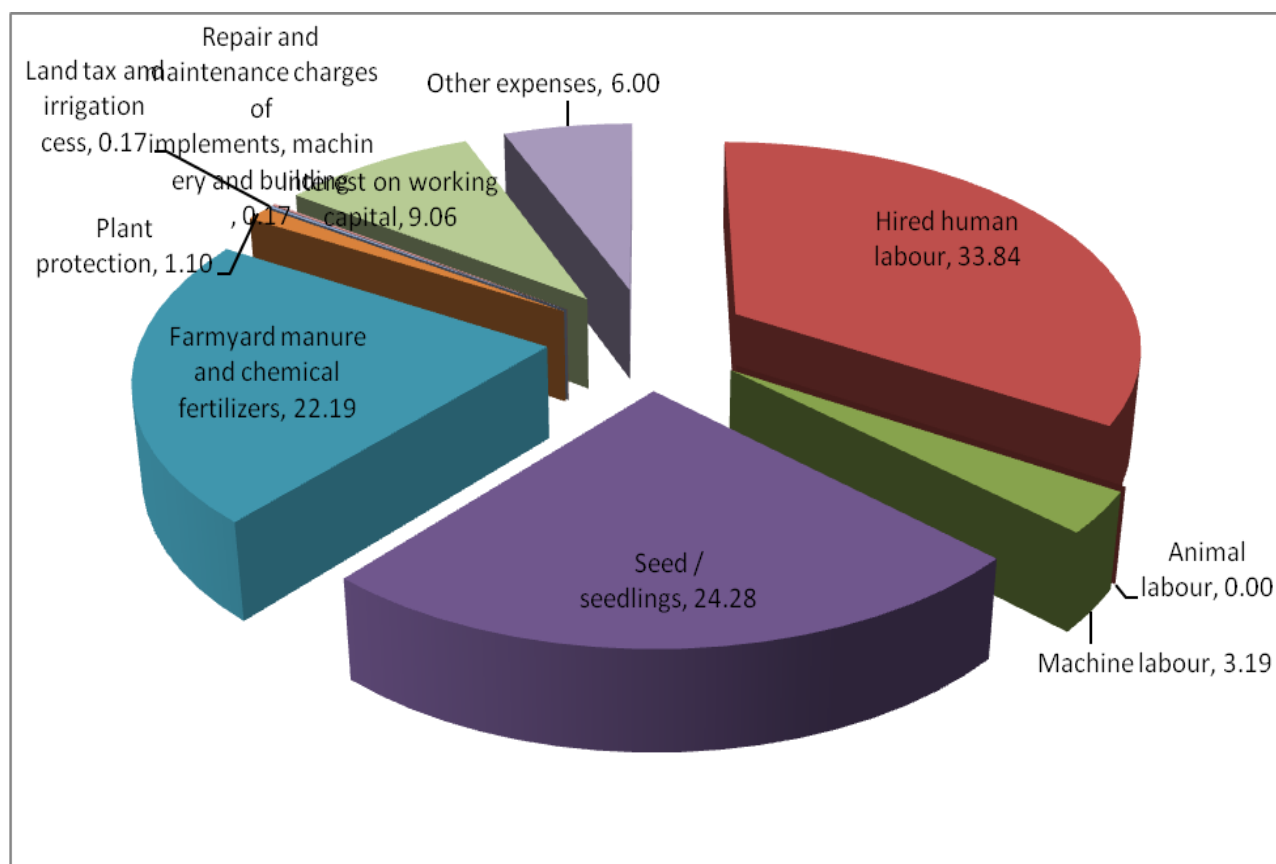
Cost of Cultivation

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 per hectare of pineapple is Rs 242651.

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

Sl No	Components	Holding size Class			
		Small	Medium	Large	All Size
1	Hired human labour	40133	45603	87821	82124
2	Animal labour	0	0	0	0
3	Machine labour	1816	3253	8454	7736
4	Seed / seedlings	54540	51971	59922	58927
5	Farmyard manure and chemical fertilizers	20873	40366	56373	53839
6	Plant protection	1238	3338	2631	2680
7	Land tax and irrigation Cess	444	1351	302	421
8	Repair and maintenance charges of implements, machinery and building	1796	522	309	376
9	Interest on working capital	12618	15745	23014	21987
10	Other expenses	7575	12921	14943	14561
11	Total Cost 'A' (1-10)	141033	175180	253769	242651
12	Interest on fixed capital	4985	1676	909	1081
13	Cost 'B1' (11+12)	146018	176856	254678	243732
14	Interest on land value	200570	250018	226221	228302
15	Cost 'B' (13+14)	346588	426874	480899	472034
16	Imputed value of household labour	26577	13706	6573	7792
17	Cost 'C' (15+16)	373165	440580	487472	479826

Percentage Distribution of “COST A” per hectare of Pineapple during 2015-16



The hired human labour cost accounted as 33.84% where as farmyard manure and chemical fertilizers cost as 22.19% of the total Cost 'A'. Seed/seedling cost constitutes to 24.28% of the total cost 'A'.

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

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

Sex	Holding Size Class			
	Small	Medium	Large	All Sizes
Male	45.47	48.78	11.57	12.79
Female	14.77	27.76	85.79	83.79
Total	60.24	76.54	97.36	96.58

Table: 57- Cost of cultivation of Pineapple per hectare (in Rs) during 2013-14, 2014-15 & 2015-16

Concept of cost	Year	Holding Size class			
		Small	Medium	Large	All size
Cost 'A'	2013-14	687513	156169	88751	114194
	2014-15	507575	185169	91469	108638
	2015-16	141033	175180	253769	242651
Cost 'B'	2013-14	2320963	1190164	293938	472787
	2014-15	1991322	825754	394520	468379
	2015-16	346588	426874	480899	472034
Cost 'C'	2013-14	2391406	1205668	298454	480599
	2014-15	2084679	851393	401564	478923
	2015-16	373165	440580	487472	479826

Value of out put

Table 58: Value of Output per hectare (In Rs.) of Pineapple

Holding Size Class			
Small	Medium	Large	All Sizes
274542	346567	467190	449700

During 2015-16 per hectare value of output from pineapple cultivation is estimated as **Rs.449700** /- and the cost of cultivating per hectare of pineapple is Rs.242651/-

2.10.1 Bitter Gourd- Autumn during 2015-16

For this study details of holding selected and area coverage are given below. The data collected from 335 sample holdings by covering 96.40 hectares and the average area per holding is 0.29 hectare.

Table 59 - 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	253	41.60	43.15	0.16
Medium	68	21.50	22.30	0.32
Large	14	33.30	34.54	2.38

Total	335	96.40	100.00	0.29
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Cost of cultivation

When Cost A is considered about 55.56percent of cost constitutes to hired human labour, Interest on working capital shares 8.22% and farmyard manure and chemical fertilizers accounts to 13.11%. Total cost for cultivating one hectare of Bittergourd in Autumn season is Rs.63607.

Table 60- Cost of Cultivation per hectare (in Rs.) of Bitter Gourd (Autumn)

Sl No	Components	Holding size Class			
		Small	Medium	Large	All Size
1	Hired human labour	20972	55225	40479	35343
2	Animal labour	0	0	0	0
3	Machine labour	76	715	1888	840
4	Seed / seedlings	1382	3936	4319	2961
5	Farmyard manure and chemical fertilizers	5501	15084	7514	8342
6	Plant protection	1179	3530	2935	2308
7	Land tax and irrigation cess	2627	6942	4693	4303
8	Repair and maintenance charges of implements, machinery and building	673	6196	282	1779
9	Interest on working capital	3025	8100	6136	5230
10	Other expenses	1136	2509	4222	2501
11	Total cost 'A' (1-10)	36571	102237	72468	63607
12	Interest on fixed capital	3996	3212	361	2576
13	Cost 'B1' (11+12)	40567	105449	72829	66183
14	Interest on land value	67032	182707	94794	102511
15	Cost 'B' (13+14)	107599	288156	167623	168694
16	Imputed value of household labour	28646	43236	9926	25512
17	Cost 'C' (15+16)	136245	331392	177549	194206

Percentage Distribution of “COST A” per hectare of Bittergourd (Autumn) during 2015-16

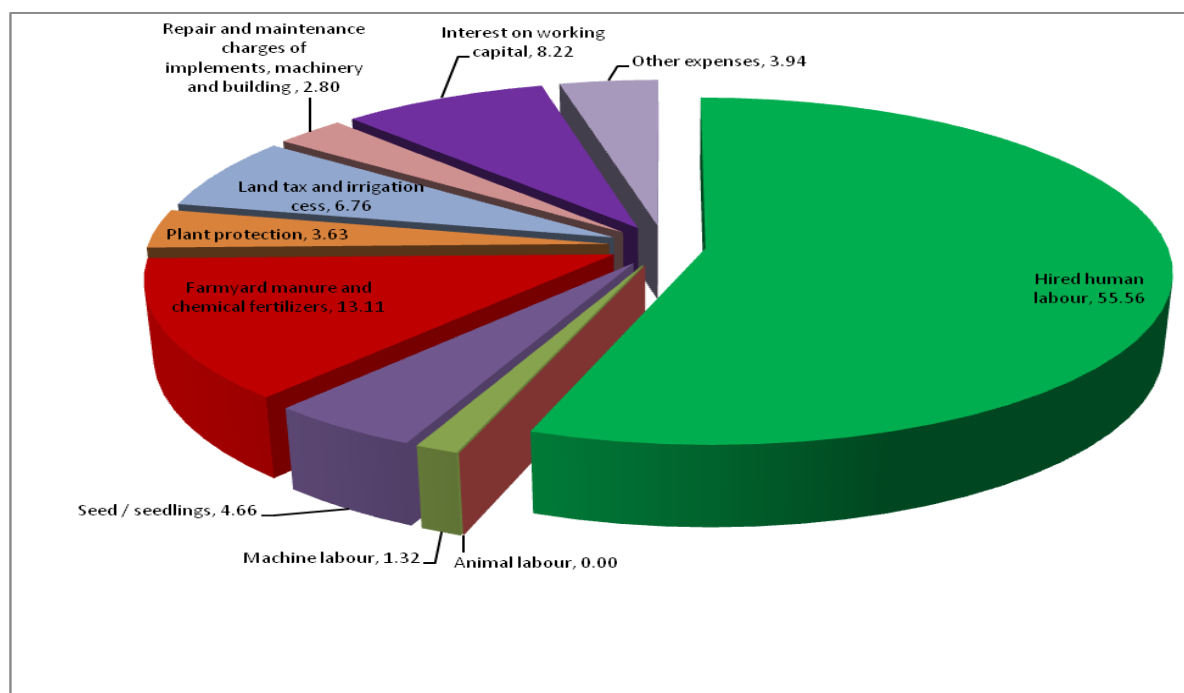


Table 61: Percentage of hired human labour hours to total human labour hours

Sex	Holding size class			
	Small	Medium	Large	All Sizes
Male	33.05	46.73	53.90	44.35
Female	8.50	7.85	28.26	14.43
Total	41.54	54.58	82.16	58.78

In Bitter Gourd (autumn) cultivation 14.43% of total labour hours shares to female participation of hired human labour hours.

Table: 62 Cost of cultivation of Bitter Gourd -Autumn per hectare (in Rs) during 2013-14, 2014-15 & 2015-16

Concept of cost	Year	Holding Size class			
		Small	Medium	Large	All size
Cost ‘A’	2013-14	83398	85146	69912	81299
	2014-15	122235	72125	79575	90258
	2015-16	36571	102237	72468	63607
Cost ‘B’	2013-14	508206	388590	277106	422667
	2014-15	692734	499731	448740	552003
	2015-16	107599	288156	167623	168694
Cost ‘C’	2013-14	532882	411775	310211	448523
	2014-15	717454	516555	465587	571431

	2015-16	136245	331392	177549	194206
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Table: 63 Value of product and by-product per hectare (in Rs.) of Bitter Gourd - Autumn 2015-16

Holding Size Class			
Small	Medium	Large	All Sizes
104620	250900	230783	180665

Value of product per hectare of Bitter gourd in Autumn season is estimated as Rs.180665/- where as the cost of cultivation per hectre is Rs.63607/-

2.10.2 Bitter Gourd -Winter during 2015-16

During 2015-16 Cost of cultivation study on Bitter gourd(winter) season, 378 sample holdings by covering 43.50 hectare selected and the average area per holding covers to 0.12 hectare

Table 64 – 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	299	16.70	38.39	0.06
Medium	78	24.20	55.63	0.31
Large	1	2.60	5.98	2.60
Total	378	43.50	100.00	0.12

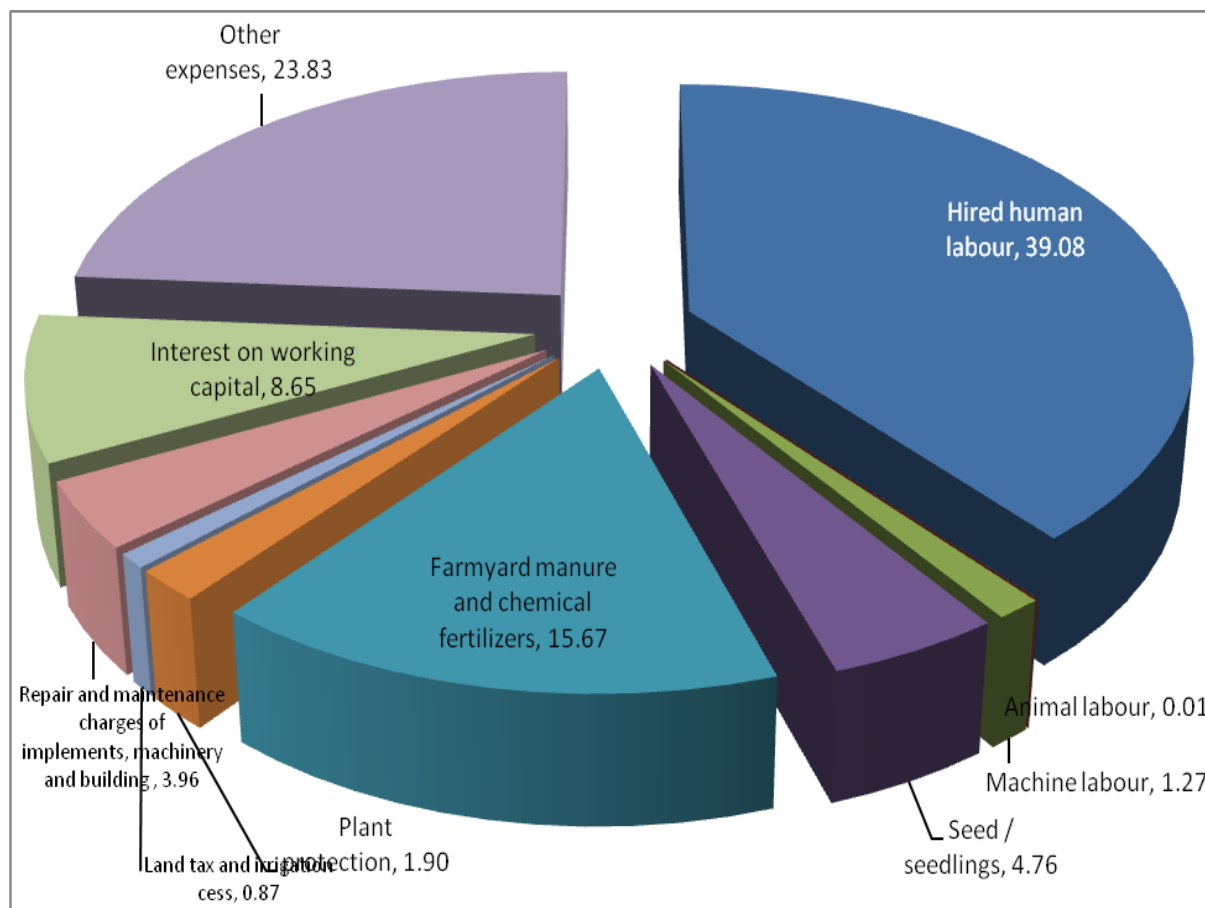
Cost of Cultivation

In CostA, the major share of the cost component was hired human labour. It constitutes 39.08%. Also farmyard manure and chemical fertilizers account 15.67%. Other expense accounts was 23.83%. By considering the various cost component of Bitter gourd (winter) cultivation, per hectare cost calculated as Rs.122039/-

Table 65 – Cost of cultivation per hectare (in Rs.) of Bitter Gourd (Winter)

Sl No	Components	Holding size Class			
		Small	Medium	Large	All Size
1	Hired human labour	47924	46659	55807	47691
2	Animal labour	47	0	0	18
3	Machine labour	306	2605	0	1555
4	Seed / seedlings	5265	6121	6501	5810
5	Farmyard manure and chemical fertilizers	18074	20008	17702	19118
6	Plant protection	1718	2894	916	2319
7	Land tax and irrigation Cess	961	1255	0	1066
8	Repair and maintenance charges of implements, machinery and building	8149	2964	272	4827
9	Interest on working capital	10333	10579	11864	10559
10	Other expenses	29994	27502	37711	29076
11	Total Cost 'A' (1-10)	122771	120587	130773	122039
12	Interest on fixed capital	27068	6326	1084	14103
13	Cost 'B1' (11+12)	149839	126913	131857	136142
14	Interest on land value	196625	112007	247100	152960
15	Cost 'B' (13+14)	346464	238920	378957	289102
16	Imputed value of household labour	81142	40116	16290	54705
17	Cost 'C' (15+16)	427606	279036	395247	343807

Percentage Distribution of “COST A” per hectare of Bittergourd (Winter) during 2015-16



Sex wise work participation percentage of hired human labours for Bitter gourd (Winter) cultivation shown below reveals that 10.11% of work shared by Female whereas percentage share to male workers is 36.54.

Table 66 – Percentage of hired human labour hours to total human labour hours

Sex	Holding size class			
	Small	Medium	Large	All Sizes
Male	28.78	42.09	64.16	36.54
Female	8.19	12.09	8.48	10.11
Total	36.96	54.18	72.65	46.65

Table: 67 Cost of cultivation of Bitter Gourd -Winter per hectare (in Rs) during 2013-14, 2014-15 & 2015-16

Concept of cost	Year	Holding Size class			
		Small	Medium	Large	All size
Cost 'A'	2013-14	108144	97482	295988	106427
	2014-15	111080	87269	108917	98392
	2015-16	122771	120587	130773	122039
Cost 'B'	2013-14	539804	394012	546560	459414
	2014-15	569186	346072	437162	443154
	2015-16	346464	238920	378957	289102
Cost 'C'	2013-14	562515	408708	557988	477446
	2014-15	592507	357943	452992	459962
	2015-16	427606	279036	395247	343807

Output

Table: 68 - Value of Product and Byproduct per hectare (in Rs) of Bitter Gourd (Winter) 2015-16

Holding Size Class			
Small	Medium	Large	All Sizes
302885	269964	215802	279605

2.10.3 Bitter Gourd - Summer during 2015-16

For the cost of cultivation study on Bitter gourd (summer) during 2015-16 the total number of sample holdings selected was 358. The details of these holdings are presented below:

Table 69: 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	295	19.50	48.27	0.07
Medium	59	17.70	43.81	0.30
Large	4	3.20	7.92	0.80
All Size	358	40.40	100.00	0.11

The total area under cultivation in the selected sample holdings covers 40.40 hectares and the average size of a holding is 0.11 hectare

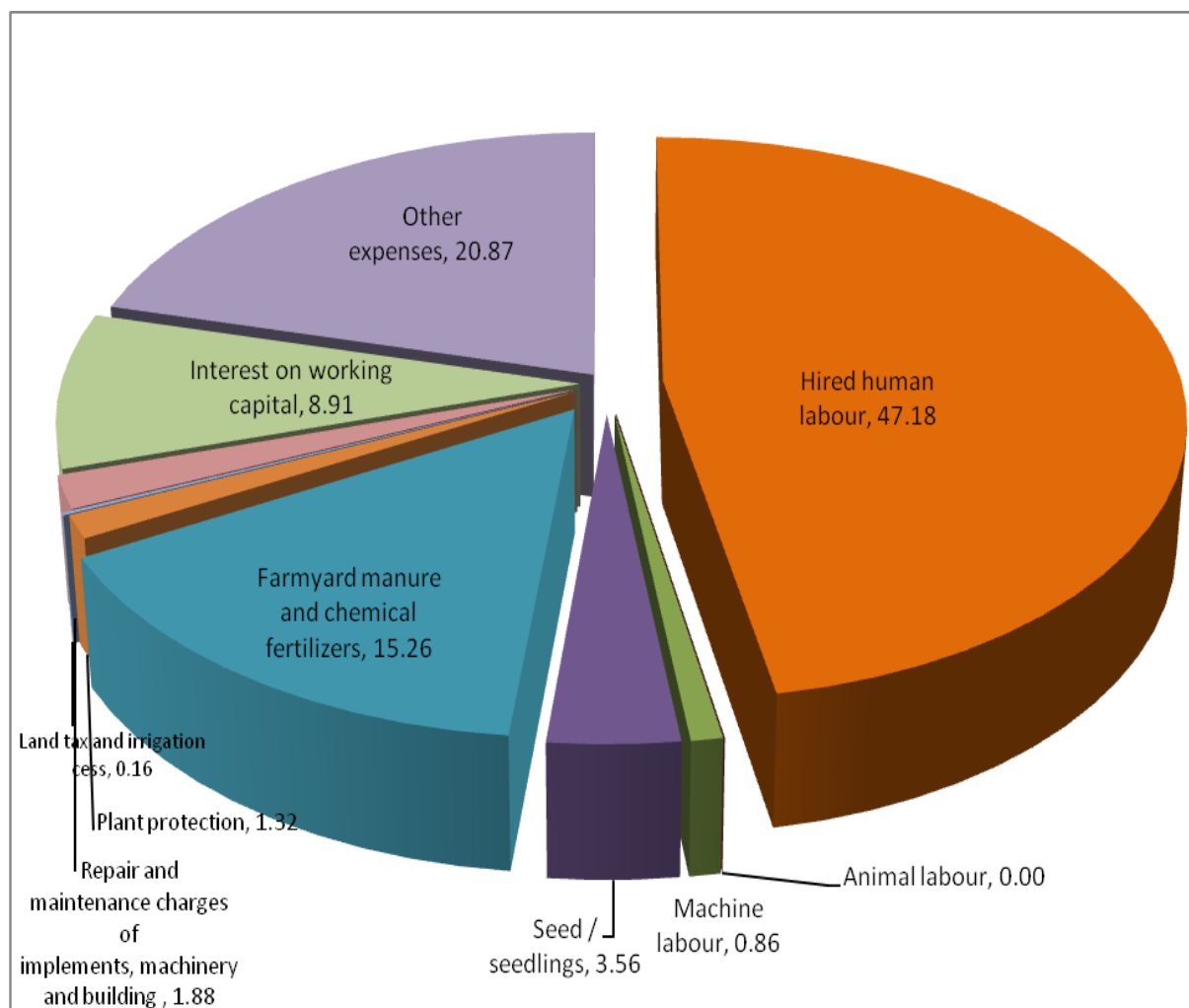
Cost of Cultivation

Cost of cultivation of Bitter gourd (Summer) per hectare is estimated as Rs.**136245/-** when cost 'A' is considered. Hired human labour gives a share of 47.18% and other expense gives 20.88%. Component wise holding size class details are presented below:

Table 70: Cost of Cultivation per hectare (in Rs.) of Bitter Gourd (Summer)

Sl No	Components	Holding size Class			
		Small	Medium	Large	All Size
1	Hired human labour	46966	81157	77728	64275
2	Animal labour	0	0	0	0
3	Machine labour	441	1724	2579	1167
4	Seed / seedlings	4450	4240	10811	4852
5	Farmyard manure and chemical fertilizers	19352	21936	23289	20785
6	Plant protection	1683	1757	2826	1804
7	Land tax and irrigation Cess	199	257	179	223
8	Repair and maintenance charges of implements, machinery and building	2520	2926	735	2559
9	Interest on working capital	9905	13661	17492	12133
10	Other expenses	26158	25798	57685	28447
11	Total Cost 'A' (1-10)	111674	153456	193324	136245
12	Interest on fixed capital	9682	5743	1758	7348
13	Cost 'B1' (11+12)	121356	159199	195082	143593
14	Interest on land value	150249	137889	195450	148362
15	Cost 'B' (13+14)	271605	297088	390532	291955
16	Imputed value of household labour	74148	50493	25800	60073
17	Cost 'C' (15+16)	345753	347581	416332	352028

Percentage Distribution of “COST A” per hectare of Bitter gourd (Summer) during 2015-16



In Bitter gourd (Summer) cultivation male labour participation accounted as 41.64 % of the total labour hours. Details are given below:

Table 71: Percentage of hired human labour hours to total human labour hours

Sex	Holding size class			
	Small	Medium	Large	All Sizes
Male	28.07	51.40	67.44	41.64
Female	10.33	11.18	5.68	10.42
Total	38.40	62.58	73.12	52.07

Table: 72 - Cost of cultivation of Bitter Gourd -Summer per hectare (in Rs) during 2013-14, 2014-15 & 2015-16

Concept of cost	Year	Holding Size class			
		Small	Medium	Large	All size
Cost 'A'	2013-14	97441	103775	0	99948
	2014-15	104141	101488	82013	100382
	2015-16	111674	153456	193324	136245
Cost 'B'	2013-14	504982	301787	0	431772
	2014-15	584051	392025	274647	454471
	2015-16	271605	297088	390532	291955
Cost 'C'	2013-14	529366	321057	0	454131
	2014-15	608523	409092	305551	475971
	2015-16	345753	347581	416332	352028

Table 73: Value of Product and by product per hectare (in Rs) of Bitter Gourd (Summer) during 2015-16

Holding Size Class			
Small	Medium	Large	All Sizes
258943	281170	426295	281628

2.11.1 Cowpea- Autumn during 2015-16

Sample of holding selected and area coverage for the study was 377 holdings by covering 66.60 hectares and the average area per holding was 0.18 hectare.

Table 74 - 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	310	46.40	69.67	0.15
Medium	62	17.60	26.43	0.28
Large	5	2.60	3.90	0.52
Total	377	66.60	100.00	0.18

Cost of cultivation

When Cost A is considered about 39.01 percent of cost constitutes to hired human labour, Machine labour cost shares 0.71% and farmyard manure and chemical fertilizers accounts to 17.39%. But the other expenses account a share of 27.09%.

Table 75- Cost of Cultivation per hectare (in Rs.) of Cowpea (Autumn)

Sl No	Components	Holding size Class			
		Small	Medium	Large	All Size
1	Hired human labour	19795	44511	114518	30048
2	Animal labour	0	0	0	0
3	Machine labour	133	779	6406	548
4	Seed / seedlings	1414	3436	7440	2186
5	Farmyard manure and chemical fertilizers	8113	22916	42660	13393
6	Plant protection	1112	2926	8496	1882
7	Land tax and irrigation cess	223	636	1308	375
8	Repair and maintenance charges of implements, machinery and building	703	1076	1309	826
9	Interest on working capital	4278	11216	24074	6892
10	Other expenses	12209	37596	61224	20867
11	Total cost 'A' (1-10)	47980	125092	267435	77017
12	Interest on fixed capital	4792	6892	1853	5237
13	Cost 'B1' (11+12)	52772	131984	269288	82254
14	Interest on land value	80867	163871	228092	108667
15	Cost 'B' (13+14)	133639	295855	497380	190921
16	Imputed value of household labour	33553	53257	52188	39519
17	Cost 'C' (15+16)	167192	349112	549568	230440

Percentage Distribution of “COST A” per hectare of cowpea (Autumn) during 2015-16

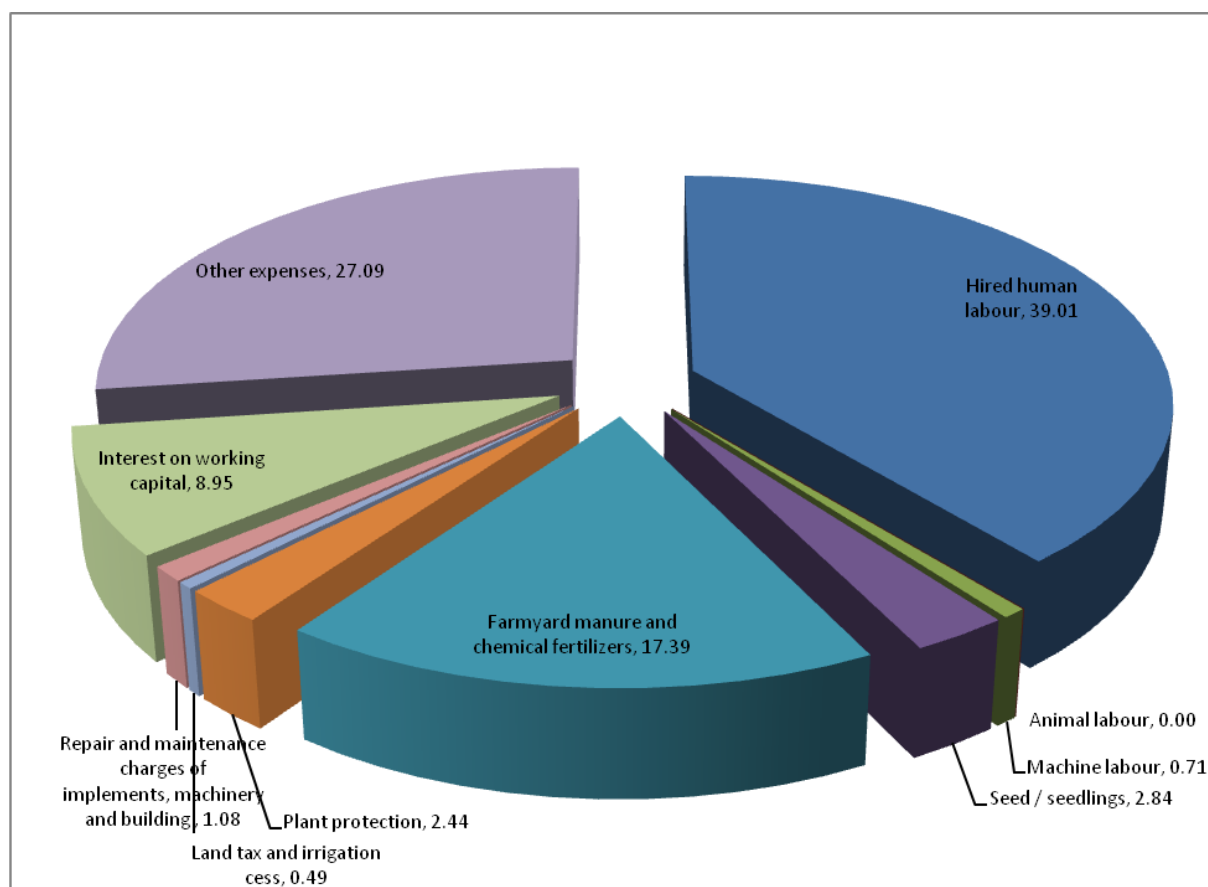


Table 76: Percentage of hired human labour hours to total human labour hours

Sex	Holding size class			
	Small	Medium	Large	All Sizes
Male	30.90	39.38	42.87	35.45
Female	5.05	4.96	28.61	7.99
Total	35.96	44.34	71.46	43.44

In Cowpea (autumn) cultivation 35.45% of total labour hours goes to males.

Table: 77 - Cost of cultivation of Cowpea -Autumn per hectare (in Rs) during 2013-14, 2014-15 & 2015-16

Concept of cost	Year	Holding Size class			
		Small	Medium	Large	All size
Cost ‘A’	2013-14	155501	104951	94017	124359
	2014-15	129609	140576	61845	115700

	2015-16	47980	125092	267435	77017
Cost 'B'	2013-14	688584	482840	193055	529124
	2014-15	920617	467017	224033	572241
	2015-16	133639	295855	497380	190921
Cost 'C'	2013-14	722779	506619	226814	558533
	2014-15	951216	408092	237974	598616
	2015-16	167192	349112	549568	230440

Table: 78 - Value of product and by-product per hectare (in Rs.) of Cowpea-Autumn 2015-16

Holding Size Class			
Small	Medium	Large	All Sizes
120490	244601	636481	173542

2.11.2 Cowpea -Winter during 2015-16

During 2015-16 Cost of cultivation study on Cowpea (winter) was conducted in 441 holdings by covering 55.50 hectare of land. Details of these holdings are given below:

Table 79 – 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	335	23.70	42.70	0.07
Medium	103	29.20	52.61	0.28
Large	3	2.60	4.68	0.87
Total	441	55.50	100.00	0.13

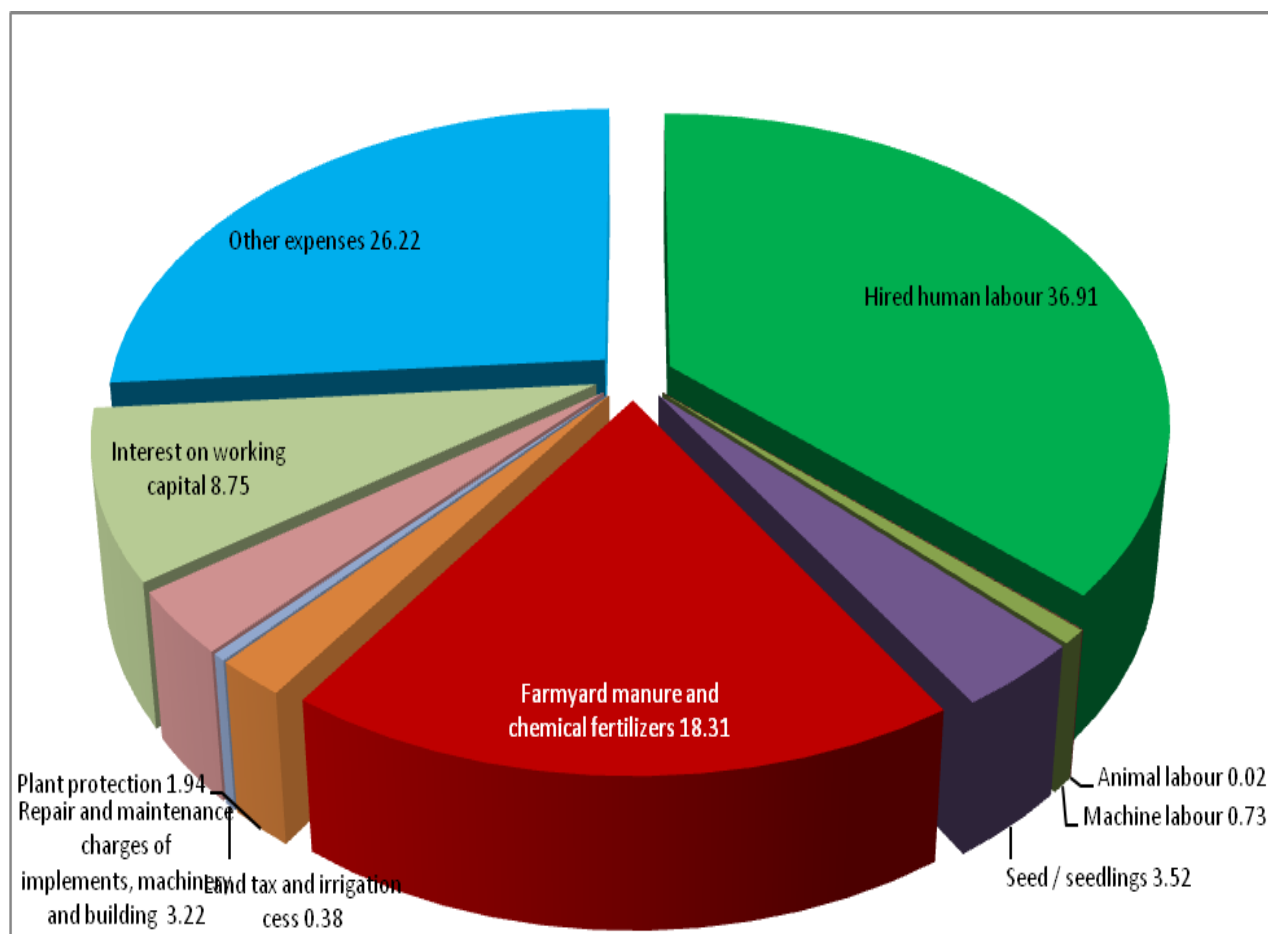
Cost of Cultivation

In Cost A, the major share of the cost component was hired human labour. It constitutes 36.91%. Another two major items were seed/seedlings and farmyard manure and chemical fertilizers which accounted 3.52% and 18.31% respectively. Interest on working capital was 8.76%. The share of other expenses contributes 26.22%. By considering the various cost component of Cowpea (Winter) cultivation per hectare cost calculated as Rs.106713/-.

Table 80– Cost of cultivation per hectare (in Rs.) of Cowpea (Winter)

Sl No	Components	Holding size Class			
		Small	Medium	Large	All Size
1	Hired human labour	40862	37439	47690	39384
2	Animal labour	52	0	0	22
3	Machine labour	275	949	3421	774
4	Seed / seedlings	4233	3204	5531	3754
5	Farmyard manure and chemical fertilizers	20343	17824	31444	19537
6	Plant protection	2001	1938	4149	2067
7	Land tax and irrigation Cess	511	330	344	409
8	Repair and maintenance charges of implements, machinery and building	5974	1620	460	3439
9	Interest on working capital	9689	8447	16462	9351
10	Other expenses	29124	23111	72381	27976
11	Total Cost 'A' (1-10)	113064	94862	181882	106713
12	Interest on fixed capital	13209	4978	130	8290
13	Cost 'B1' (11+12)	126273	99840	182012	115003
14	Interest on land value	154307	125804	139136	138668
15	Cost 'B' (13+14)	280580	225644	321148	253671
16	Imputed value of household labour	73775	47142	25280	57573
17	Cost 'C' (15+16)	354355	272786	346428	311244

Percentage Distribution of “COST A” per hectare of Cowpea (Winter) during 2015-16



Sex wise work participation in hired human labours for Cowpea (Winter) cultivation reveals that 34.19% of work shared by Female whereas 22.55% shared by male workers.

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

Table 81 – Percentage of hired human labour hours to total human labour hours

Sex	Holding size class			
	Small	Medium	Large	All Sizes
Male	28.27	33.02	3.89	22.55
Female	7.02	11.48	92.48	34.19
Total	35.29	44.50	96.38	56.74

Table: 82 Cost of cultivation of Cowpea -Winter per hectare (in Rs) during 2013-14, 2014-15 & 2015-16

Concept of cost	Year	Holding Size class			
		Small	Medium	Large	All size
Cost 'A'	2013-14	93686	96084	82663	94165
	2014-15	96234	90747	129808	95899
	2015-16	113061	94862	181882	106713
Cost 'B'	2013-14	492547	457245	192226	459588
	2014-15	478959	350634	381067	405139
	2015-16	280580	225644	321148	253671
Cost 'C'	2013-14	517816	481614	215300	484322
	2014-15	511638	365644	411741	428511
	2015-16	354355	272786	346428	311244

Output

Table: 83 - Value of Product and Byproduct per hectare (in Rs) of Cowpea -Winter 2015-16

Holding Size Class			
Small	Medium	Large	All Sizes
282563	271153	379632	281077

2.11.3 Cowpea - Summer (Puncha) during 2015-16

For the cost of cultivation study on Cowpea (summer) during 2015-16 the total number of holdings selected was 445. The details of these holdings are presented below

Table 84: 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	372	26.60	52.26	0.07
Medium	69	19.70	38.70	0.29
Large	4	4.60	9.04	1.15
All Size	445	50.90	100.00	0.11

The total area under cultivation in the selected sample holdings covers to 50.90 hectares and the average size of a holding is 0.11 hectare.

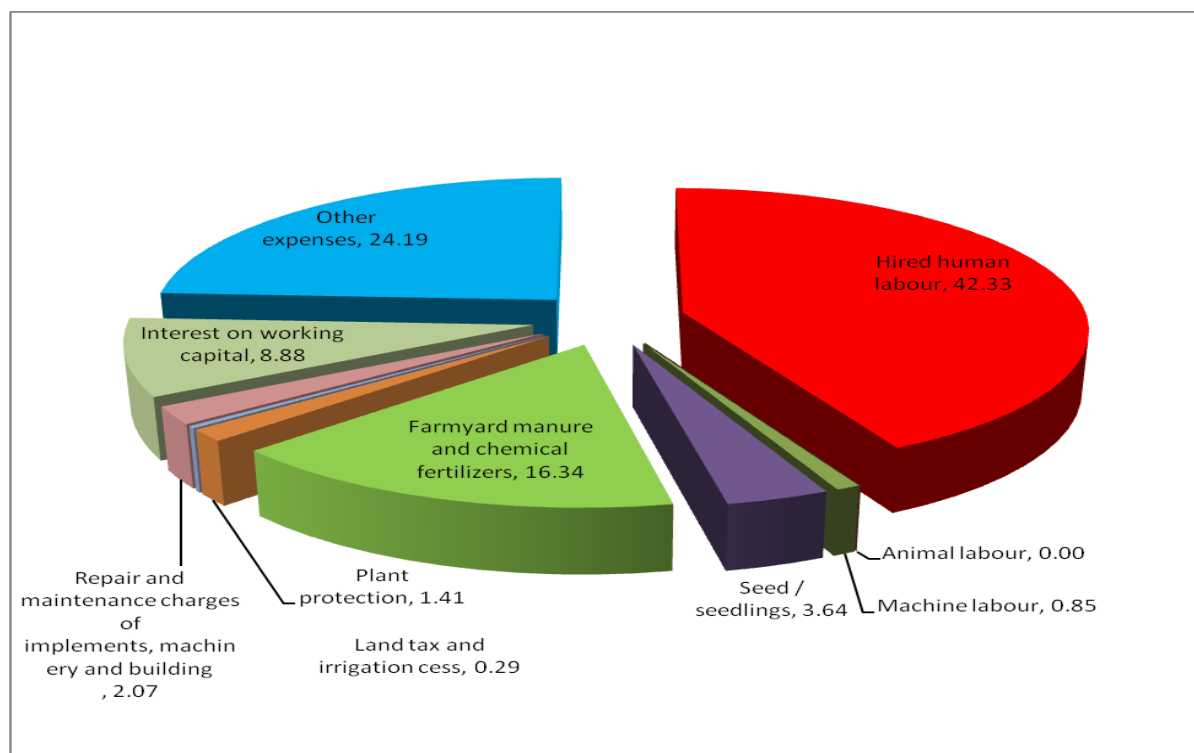
Cost of Cultivation

Cost of cultivation of Cowpea (summer) per hectare is estimated as Rs.**111248/-** when cost 'A' is considered. Cost incurred for hired human labour is 42.33% of the total cost and farmyard manure and chemical fertilizer is 16.34% of the total cost, but the other expenses share is 24.19%

Table 85: Cost of Cultivation per hectare (in Rs.) of Cowpea (Summer) during 2015-2016

Sl No	Components	Holding size Class			
		Small	Medium	Large	All Size
1	Hired human labour	40086	58964	36625	47094
2	Animal labour	0	0	0	0
3	Machine labour	481	1784	0	943
4	Seed / seedlings	3692	4413	4613	4054
5	Farmyard manure and chemical fertilizers	18230	19451	12361	18179
6	Plant protection	1532	1537	1977	1574
7	Land tax and irrigation Cess	295	424	76	326
8	Repair and maintenance charges of implements, machinery and building	2816	1987	565	2294
9	Interest on working capital	8938	11362	8913	9875
10	Other expenses	25357	27475	33555	26909
11	Total Cost 'A' (1-10)	101427	127397	98685	111248
12	Interest on fixed capital	9634	4677	1416	6980
13	Cost 'B1' (11+12)	111061	132074	100101	118228
14	Interest on land value	130030	155232	291999	154246
15	Cost 'B' (13+14)	241091	287306	392100	272474
16	Imputed value of household labour	80237	53231	40009	66182
17	Cost 'C' (15+16)	321328	340537	432109	338656

Percentage Distribution of “COST A” per hectare of cowpea (Summer) during 2015-16



In Cowpea summer cultivation hired female labour participation accounted as 10.46 % of the total labour hours. Details are given below:

Table 86: Percentage of hired human labour hours to total human labour hours

Sex	Holding size class			
	Small	Medium	Large	All Sizes
Male	26.61	36.97	28.34	30.71
Female	5.36	15.20	23.62	10.46
Total	31.97	52.17	51.96	41.17

Table 87: Cost of cultivation of Cowpea -Summer per hectare (in Rs) during 2013-14, 2014-15 & 2015-16

Concept of cost	Year	Holding Size class			
		Small	Medium	Large	All size
Cost ‘A’	2013-14	90335	91000	77447	89607
	2014-15	91299	89448	74452	89367
	2015-16	101427	127397	98685	111248
Cost ‘B’	2013-14	522317	307979	242806	412376
	2014-15	502602	413647	159498	436551

	2015-16	241091	287306	392100	272474
Cost 'C'	2013-14	540367	322597	350713	428225
	2014-15	526788	433940	184471	458752
	2015-16	321328	340537	432109	338656

Table 88: Value of Product and by product per hectare (in Rs) of Cowpea Summer during 2015-16

Holding Size Class			
Small	Medium	Large	All Sizes
272314	293508	229281	276689

2.12 Cardamom during 2015-16

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

Table 89: 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	30	3.70	9.69	0.12
Medium	46	21.40	56.02	0.47
Large	12	13.10	34.29	1.09
All size	88	38.20	100.00	0.43

For the study 88 sample holdings were selected and the total area of crop in the selected area was 38.20 hectare. The average size per holding was 0.43 hectare.

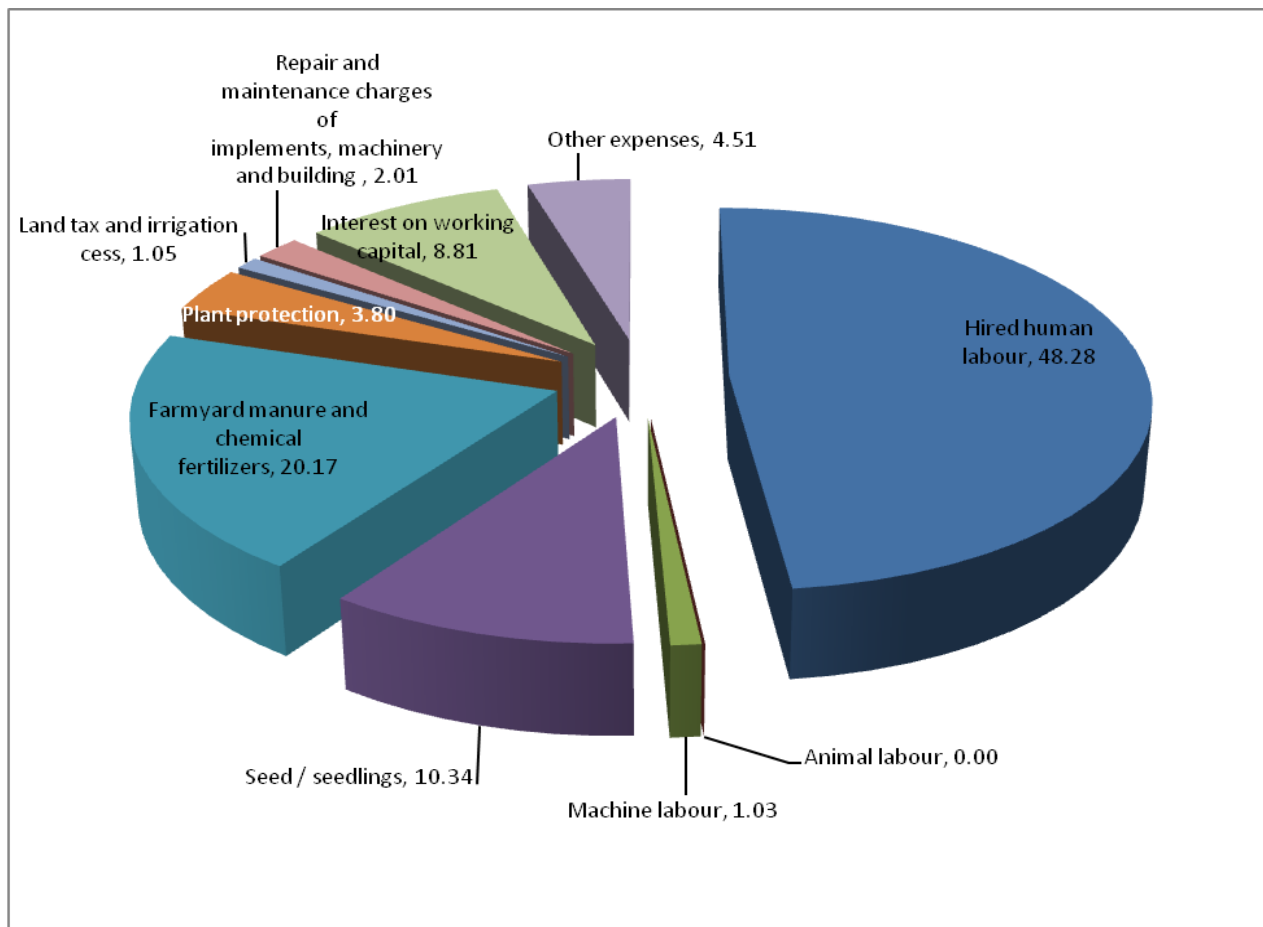
Cost of Cultivation

The different cost components of Cardamom cultivation is given below: Per hectare cost for cultivating cardamom is estimated as Rs 115984/- excluding interest on fixed capital, interest on land value and imputed value of household labour.

Table 90: Cost of Cultivation per hectare (in Rs.) of Cardamom

Sl No	Components	Holding size Class			
		Small	Medium	Large	All Size
1	Hired human labour	65331	40646	78221	55996
2	Animal labour	0	0	0	0
3	Machine labour	1055	873	1755	1194
4	Seed / seedlings	9611	12858	11281	11995
5	Farmyard manure and chemical fertilizers	31074	21097	24899	23390
6	Plant protection	1476	4537	5033	4404
7	Land tax and irrigation Cess	291	1336	1287	1216
8	Repair and maintenance charges of implements, machinery and building	8165	1748	1586	2328
9	Interest on working capital	11685	8671	12317	10222
10	Other expenses	8305	6700	1984	5239
11	Total Cost 'A' (1-10)	136993	98466	138363	115984
12	Interest on fixed capital	7623	4870	4387	4977
13	Cost 'B1' (11+12)	144616	103336	142750	120961
14	Interest on land value	108748	96071	67495	87509
15	Cost 'B' (13+14)	253364	199407	210245	208470
16	Imputed value of household labour	34107	23377	13701	21114
17	Cost 'C' (15+16)	287471	222784	223946	229584

Percentage Distribution of “COST A” per hectare of cardamom during 2015-16



When Cost A is considering, 48.28% comes under hired human labour and 20.17% in Farmyard manure and chemical fertilizers.

The following table illustrates the work participation of cardamom cultivation. It shows that percentage of hired human labour hours of females are very high and it is accounted as 53.87%.

Table 91: Percentage of hired human labour hours to total human labour hours

Sex	Holding size class			
	Small	Medium	Large	All Sizes
Male	20.59	22.79	24.40	23.20
Female	48.64	45.08	64.50	53.87
Total	69.23	67.87	88.90	77.08

Table: 92 Cost of cultivation of Cardamom per hectare (in Rs) during 2013-14, 2014-15 & 2015-16

Concept of cost	Year	Holding Size class			
		Small	Medium	Large	All size
Cost 'A'	2013-14	121948	125217	126333	125336
	2014-15	109423	114950	153244	130918
	2015-16	136993	98466	138363	115984
Cost 'B'	2013-14	552807	578004	310245	454067
	2014-15	616444	520430	372965	466350
	2015-16	253364	199407	210245	208470
Cost 'C'	2013-14	586429	592570	323856	470443
	2014-15	651008	535535	387889	483307
	2015-16	287471	222784	223946	229584

Value of Out put

Table 93: Value of Output per hectare (in Rs) of Cardamom

The estimated value of output per hectare is Rs.340647/-

Holding Size Class			
Small	Medium	Large	All Sizes
324150	354128	323517	340647

A1.1 District wise Area and number of holding under Autumn Paddy during 2015-16

Sl No	District	No of selected holdings	Area under the crop in the sample (ha)	Percentage Area	Average Area per holding (ha)
1	Thiruvananthapuram	60	22.80	4.45	0.38
2	Kollam	19	30.10	5.88	1.58
3	Pathanamthitta	15	9.40	1.84	0.63
4	Alappuzha	71	90.30	17.63	1.27
5	Kottayam	45	51.90	10.13	1.15
6	Idukki	30	9.90	1.93	0.33
7	Ernakulam	105	57.80	11.28	0.55
8	Thrissur	67	94.30	18.41	1.50
9	Palakkad	63	59.00	11.52	1.50
10	Malappuram	60	42.50	8.30	0.71
11	Kozhikkode	40	9.20	1.80	0.23
12	Wayanad	0	0	0	0
13	Kannur	45	17.90	3.49	0.40
14	Kasaragod	30	17.10	3.34	0.57
	State	650	512.20	100	0.79

A1.2 District wise Area and number of holding under Winter Paddy during 2015-16

Sl No	District	No of selected holdings	Area under the crop in the sample (ha)	Percentage Area	Average Area per holding (ha)
1	Thiruvananthapuram	58	35.40	4.61	0.61
2	Kollam	68	39.50	5.15	0.58
3	Pathanamthitta	46	34.70	4.52	0.75
4	Alappuzha	90	123.60	16.11	1.37
5	Kottayam	66	35.00	4.56	0.53
6	Idukki	45	14.60	1.90	0.32
7	Eranakulam	90	71.40	9.31	0.79
8	Thrissur	73	136.60	17.80	1.87
9	Palakkad	74	86.70	11.30	1.17
10	Malappuram	60	89.70	11.69	1.50
11	Kozhikkode	45	29.90	3.90	0.66
12	Wayanad	45	35.00	4.56	0.78
13	Kannur	45	20.50	2.67	0.46
14	Kasaragod	30	14.70	1.92	0.49
	State	835	767.30	100	0.92

A1.3 District wise Area and number of holding under Summer Paddy during 2015-16

Sl No	District	No of selected holdings	Area under the crop in the sample (ha)	Percentage Area	Average Area per holding (ha)
1	Thiruvananthapuram	60	31.50	5.05	0.53
2	Kollam	11	4.50	0.72	0.41
3	Pathanamthitta	52	129.30	20.71	2.49
4	Alappuzha	75	103.00	16.50	1.37
5	Kottayam	60	57.30	9.18	0.96
6	Idulikki	38	6.50	1.04	0.17
7	Eranakulam	81	41.00	6.57	0.51
8	Thrissur	62	103.10	16.52	1.66
9	Palakkad	75	37.00	5.93	0.49
10	Malappuram	207	62.30	9.98	0.30
11	Kozhikkode	45	22.0	3.52	0.49
12	Wayanad	45	12.60	2.02	0.28
13	Kannur	15	2.60	0.42	0.17
14	Kasaragod	30	11.60	1.86	0.39
	State	856	624.30	100	0.73

A1.4 District wise Area and number of holding under Coconut during 2015-16

Sl No	District	No of selected holdings	Area under the crop in the sample (ha)	Percentage Area	Average Area per holding (ha)
1	Thiruvananthapuram	80	33.80	6.43	0.42
2	Kollam	100	33.20	6.31	0.33
3	Pathanamthitta	100	25.30	4.81	0.25
4	Alappuzha	120	59.60	11.34	0.50
5	Kottayam	100	33.70	6.41	0.34
6	Idukki	80	17.80	3.39	0.29
7	Eranakulam	140	41.10	7.82	0.29
8	Thrissur	100	52.40	9.97	0.52
9	Palakkad	100	70.40	13.40	0.70
10	Malappuram	80	62.30	11.86	0.78
11	Kozhikkode	60	31.10	5.92	0.52
12	Wayanad	60	18.00	3.43	0.30
13	Kannur	60	22.60	4.30	0.62
14	Kasaragod	40	24.60	4.68	0.62
	State	1220	525.50	100	0.43

A1.5 District wise Area and number of holding under Arecanut during 2015-16

Sl No	District	No of selected holdings	Area under the crop in the sample (ha)	Percentage Area	Average Area per holding (ha)
1	Thiruvananthapuram	78	11.80	5.22	0.15
2	Kollam	100	3.20	1.42	0.03
3	Pathanamthitta	100	5.20	2.30	0.05
4	Alappuzha	120	4.90	2.17	0.04
5	Kottayam	100	8.00	3.54	0.08
6	Idukki	80	8.60	3.81	0.11
7	Eranakulam	140	11.70	5.18	0.08
8	Thrissur	100	22.50	9.96	0.23
9	Palakkad	100	43.60	19.30	0.44
10	Malappuram	80	48.50	21.47	0.61
11	Kozhikkode	60	7.80	3.45	0.13
12	Wayanad	60	25.40	11.24	0.42
13	Kannur	60	7.90	3.50	0.13
14	Kasaragod	40	16.80	7.44	0.42
	State	1218	225.90	100	0.19

A1.6 District wise Area and number of holding under Tapioca during 2015-16

Sl No	District	No of selected holdings	Area under the crop in the sample (ha)	Percentage Area	Average Area per holding (ha)
1	Thiruvananthapuram	60	12.90	6.98	0.22
2	Kollam	75	2.60	1.41	0.03
3	Pathanamthitta	75	8.20	4.43	0.11
4	Alappuzha	90	10.10	5.46	0.11
5	Kottayam	75	19.10	10.33	0.25
6	Idukki	60	15.00	8.11	0.25
7	Eranakulam	91	25.20	13.63	0.28
8	Thrissur	61	8.30	4.49	0.14
9	Palakkad	68	28.30	15.31	0.42
10	Malappuram	60	23.20	12.55	0.39
11	Kozhikkode	45	8.10	4.38	0.18
12	Wayanad	45	12.50	6.76	0.28
13	Kannur	46	7.50	4.06	0.16
14	Kasaragod	30	3.60	1.95	0.12
	State	881	184.90	100	0.21

A1.7 District wise Area and number of holding under Banana during 2015-16

Sl No	District	No of selected holdings	Area under the crop in the sample (ha)	Percentage Area	Average Area per holding (ha)
1	Thiruvananthapuram	60	16.20	7.40	0.27
2	Kollam	75	10.80	4.94	0.14
3	Pathanamthitta	75	12.10	5.53	0.16
4	Alappuzha	66	10.40	4.75	0.16
5	Kottayam	75	17.00	7.77	0.23
6	Idukki	60	13.60	6.22	0.23
7	Eranakulam	90	25.20	11.52	0.28
8	Thrissur	63	13.40	6.12	0.21
9	Palakkad	75	34.00	15.54	0.45
10	Malappuram	60	18.90	8.64	0.32
11	Kozhikkode	45	14.00	6.40	0.31
12	Wayanad	45	20.00	9.14	0.44
13	Kannur	45	9.10	4.16	0.20
14	Kasaragod	30	4.10	1.87	0.14
	State	864	218.80	100	0.25

A1.8 District wise Area and number of holding under Pepper during 2015-16

Sl No	District	No of selected holdings	Area under the crop in the sample (ha)	Percentage Area	Average Area per holding (ha)
1	Thiruvananthapuram	60	9.10	7.08	0.15
2	Kollam	75	4.30	3.34	0.06
3	Pathanamthitta	75	6.00	4.67	0.08
4	Alappuzha	90	3.60	2.80	0.04
5	Kottayam	75	13.20	10.26	0.18
6	Idukki	60	16.00	12.44	0.27
7	Eranakulam	104	7.80	6.07	0.08
8	Thrissur	60	4.70	3.65	0.08
9	Palakkad	75	27.90	21.70	0.37
10	Malappuram	60	8.40	6.53	0.14
11	Kozhikkode	45	1.60	1.24	0.04
12	Wayanad	45	16.40	12.75	0.36
13	Kannur	45	6.80	5.29	0.15
14	Kasaragod	30	2.80	2.18	0.09
	State	899	128.60	100	0.14

A1.9 District wise Area and number of holding under Ginger during 2015-16					
Sl No	District	No of selected holdings	Area under the crop in the sample (ha)	Percentage Area	Average Area per holding (ha)
1	Thiruvananthapuram	60	2.90	3.02	0.05
2	Kollam	75	2.10	2.19	0.03
3	Pathanamthitta	75	3.50	3.64	0.05
4	Alappuzha	36	1.20	1.25	0.03
5	Kottayam	75	3.90	4.06	0.05
6	Idukki	60	5.00	5.20	0.08
7	Eranakulam	63	5.70	5.93	0.09
8	Thrissur	50	3.10	3.23	0.06
9	Palakkad	65	45.90	47.76	0.71
10	Malappuram	41	2.30	2.39	0.06
11	Kozhikkode	39	3.60	3.75	0.09
12	Wayanad	45	9.60	9.99	0.21
13	Kannur	31	4.40	4.58	0.14
14	Kasaragod	21	2.90	3.02	0.14
	State	736	96.10	100	0.13

A1.10 District wise Area and number of holding under Turmeric during 2015-16

Sl No	District	No of selected holdings	Area under the crop in the sample (ha)	Percentage Area	Average Area per holding (ha)
1	Thiruvananthapuram	55	1.80	2.31	0.03
2	Kollam	75	1.80	2.31	0.02
3	Pathanamthitta	54	1.50	1.93	0.03
4	Alappuzha	29	1.00	1.29	0.03
5	Kottayam	75	3.40	4.37	0.05
6	Idukki	55	3.40	4.37	0.06
7	Eranakulam	80	9.80	12.60	0.12
8	Thrissur	54	3.40	4.37	0.06
9	Palakkad	64	40.60	52.19	0.63
10	Malappuram	42	4.50	5.78	0.11
11	Kozhikkode	41	1.50	1.93	0.07
12	Wayanad	45	2.00	2.57	0.04
13	Kannur	27	2.20	2.83	0.08
14	Kasaragod	21	0.90	1.15	0.04
	State	717	77.80	100	0.11

A1.11 District wise Area and number of holding under Pineapple during 2015-16

Sl No	District	No of selected holdings	Area under the crop in the sample (ha)	Percentage Area	Average Area per holding (ha)
1	Thiruvananthapuram	15	12.60	3.24	0.84
2	Kollam	30	7.90	2.03	0.26
3	Pathanamthitta	9	3.40	0.87	0.38
4	Alappuzha	16	3.30	0.84	0.21
5	Kottayam	75	71.90	18.48	0.96
6	Idukki	35	29.00	7.46	0.83
7	Eranakulam	64	109.90	28.25	1.72
8	Thrissur	26	56.40	14.50	2.17
9	Palakkad	8	40.00	10.28	5.00
10	Malappuram	8	11.70	3.01	1.46
11	Kozhikkode	9	9.40	2.42	1.04
12	Wayanad	5	4.30	1.11	0.86
13	Kannur	24	14.60	3.75	0.61
14	Kasaragod	17	14.60	3.75	0.86
	State	341	389.00	100	1.14

A1.12 District wise Area and number of holding under Bitter Gourd (Autumn) during 2015-16					
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	6.20	6.43	0.18
2	Kollam	46	2.80	2.90	0.06
3	Pathanamthitta	35	1.80	1.87	0.05
4	Alappuzha	28	1.50	1.56	0.05
5	Kottayam	50	3.10	3.26	0.06
6	Idukki	10	3.00	3.11	0.30
7	Eranakulam	17	2.70	2.80	0.16
8	Thrissur	30	30.1	31.22	1.00
9	Palakkad	40	37.20	38.59	0.93
10	Malappuram	20	5.70	5.91	0.29
11	Kozhikode	3	0.90	0.93	0.30
12	Wayanad	0	0	0	0
13	Kannur	19	1.40	1.45	0.07
14	Kasaragod	3	0.06	0.06	0.02
	State	335	96.40	100	0.29

A1.13 District wise Area and number of holding under Bitter Gourd (Winter) during 2015-16

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	3.60	8.28	1.10
2	Kollam	49	2.60	5.98	0.05
3	Pathanamthitta	27	1.30	2.99	0.05
4	Alappuzha	21	0.60	1.38	0.03
5	Kottayam	38	2.80	6.44	0.07
6	Idukki	36	5.3	12.18	0.15
7	Eranakulam	16	4.00	9.20	0.25
8	Thrissur	32	3.70	8.51	0.17
9	Palakkad	42	5.60	12.87	0.13
10	Malappuram	18	4.00	9.20	0.22
11	Kozhikode	5	1.60	3.68	0.32
12	Wayanad	27	6.40	14.71	0.24
13	Kannur	18	1.60	3.68	0.39
14	Kasaragod	16	0.4	0.92	0.03
	State	378	43.50	100	0.12

A1.14 District wise Area and number of holding under Bitter Gourd (Summer) during 2015-16					
Sl No	District	No of selected holdings	Area under the crop in the sample (ha)	Percentage Area	Average Area per holding (ha)
1	Thiruvananthapuram	39	6.20	15.35	0.16
2	Kollam	38	2.10	5.20	0.06
3	Pathanamthitta	39	2.10	5.20	0.06
4	Alappuzha	38	2.20	5.45	0.06
5	Kottayam	40	3.30	8.17	0.08
6	Idukki	0	0	0	0
7	Eranakulam	18	3.30	8.17	0.18
8	Thrissur	29	4.00	9.90	0.14
9	Palakkad	14	3.90	9.65	0.28
10	Malappuram	24	2.90	7.18	0.12
11	Kozhikkode	15	5.50	13.61	0.37
12	Wayanad	15	0.90	2.23	0.06
13	Kannur	33	3.50	8.66	0.11
14	Kasaragod	16	0.50	1.24	0.03
	State	358	40.40	100	0.11

A1.15 District wise Area and number of holding under Cowpea (Autumn) during 2015-16

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	4.70	7.06	0.13
2	Kollam	49	5.20	7.81	0.11
3	Pathanamthitta	38	1.60	2.40	0.04
4	Alappuzha	46	3.90	5.86	0.08
5	Kottayam	50	5.00	7.51	0.11
6	Idukki	10	2.80	4.20	0.28
7	Eranakulam	24	4.20	6.31	0.18
8	Thrissur	30	2.50	3.75	0.08
9	Palakkad	40	30.40	45.65	0.76
10	Malappuram	26	5.30	7.96	0.20
11	Kozhikkode	2	0.10	0.15	0.05
12	Wayanad	0	0	0	0
13	Kannur	22	0.90	1.35	0.04
14	Kasaragod	3	0.10	0.15	0.03
	State	377	66.70	100	0.18

A1.16 District wise Area and number of holding under Cowpea (Winter) during 2015-16					
Sl No	District	No of selected holdings	Area under the crop in the sample (ha)	Percentage Area	Average Area per holding (ha)
1	Thiruvananthapuram	39	5.20	9.37	0.13
2	Kollam	50	3.60	6.49	0.07
3	Pathanamthitta	34	2.70	4.86	0.08
4	Alappuzha	26	1.00	1.80	0.04
5	Kottayam	50	4.90	8.83	0.10
6	Idukki	40	8.40	15.14	0.21
7	Eranakulam	17	4.60	8.29	0.27
8	Thrissur	40	3.50	6.31	0.09
9	Palakkad	38	5.80	10.45	0.15
10	Malappuram	30	4.30	7.75	0.14
11	Kozhikkode	11	1.90	3.42	0.17
12	Wayanad	30	5.20	9.37	0.17
13	Kannur	18	3.00	5.41	0.17
14	Kasaragod	18	1.40	2.52	0.08
	State	441	55.50	100	0.13

A1.17 District wise Area and number of holding under Cowpea (Summer) during 2015-16					
Sl No	District	No of selected holdings	Area under the crop in the sample (ha)	Percentage Area	Average Area per holding (ha)
1	Thiruvananthapuram	40	5.80	11.39	0.15
2	Kollam	48	2.30	4.52	0.05
3	Pathanamthitta	45	3.60	7.07	0.08
4	Alappuzha	49	3.70	7.27	0.08
5	Kottayam	50	6.30	12.38	0.13
6	Idukki	20	1.50	2.95	0.08
7	Eranakulam	16	1.60	3.14	0.10
8	Thrissur	28	6.10	11.98	0.22
9	Palakkad	23	4.80	9.43	0.21
10	Malappuram	30	5.50	10.81	0.18
11	Kozhikkode	20	1.70	3.34	0.09
12	Wayanad	28	4.20	8.25	0.15
13	Kannur	28	2.60	5.11	0.39
14	Kasaragod	20	1.20	2.36	0.06
	State	445	50.90	100	0.11

A1.18 District wise Area and number of holding under Cardamom during 2015-16					
Sl No	District	No of selected holdings	Area under the crop in the sample (ha)	Percentage Area	Average Area per holding (ha)
1	Idukki	44	21.40	53.02	0.49
2	Palakkad	5	3.50	9.16	0.70
3	Wayanad	39	13.30	34.82	0.34
	State	88	38.20	100	0.43

A2.1 District wise Cost of Cultivation per hectare (in Rs) of Autumn Paddy during 2014-15						
Sl No	Components	Thiruvannthapuram	Kollam	Pathanamthitta	Alappuzha	Kottayam
1	Hired human labour	47512	61327	28777	27073	15553
2	Animal labour	0	0	0	0	0
3	Machine labour	8305	7852	9878	6286	10554
4	Seed / seedlings	2233	2506	2496	4424	2071
5	Farmyard manure and chemical fertilizers	6611	10745	5529	6560	4860
6	Plant protection	854	424	786	2806	1337
7	Land tax and irrigation cess	42	399	79	493	106
8	Repair and maintenance charges of implements, machinery and building	1328	2387	346	0	42
9	Interest on working capital	3736	4383	2819	2714	2136
10	Other expenses	9202	4797	8909	7126	8343
11	Total cost 'A' (1-10)	79823	94820	59619	57482	45002
12	Interest on fixed capital	1920	1791	141	81	134
13	Cost 'B1' (11+12)	81743	96611	59760	57563	45136
14	Interest on land value	61661	21615	37751	41098	36254
15	Cost 'B' (13+14)	13404	118226	97511	98661	81390
16	Imputed value of household labour	16201	6439	12308	6024	10089
17	Cost 'C' (15+16)	159605	124665	109819	104685	914979

A2.1 District wise Cost of Cultivation per hectare (in Rs.) of Autumn Paddy during 2015-16

Sl No	Components	Idukki	Eranakulam	Thrissur	Palakkad	Malappuram
1	Hired human labour	26095	22349	11638	16406	19564
2	Animal labour	240	0	0	0	950
3	Machine labour	7855	4023	11933	9468	8109
4	Seed / seedlings	2247	2182	2292	1749	2072
5	Farmyard manure and chemical fertilizers	4348	4277	5830	6748	3952
6	Plant protection	49	170	1454	456	1038
7	Land tax and irrigation cess	36	125	210	238	39
8	Repair and maintenance charges of implements, machinery and building	840	1484	31	1718	100
9	Interest on working capital	2141	1810	1860	1847	2037
10	Other expenses	1976	3194	4045	2107	5058
11	Total cost 'A' (1-10)	45827	39614	39293	40737	42919
12	Interest on fixed capital	979	1308	110	1299	257
13	Cost 'B1' (11+12)	46806	40922	39403	42036	43176
14	Interest on land value	34112	75068	38267	40678	40209
15	Cost 'B' (13+14)	80918	115990	77670	82714	83385
16	Imputed value of household labour	11093	5626	3718	4412	7852
17	Cost 'C' (15+16)	92011	121616	81388	87126	91237

A2.1 District wise Cost of Cultivation per hectare (in Rs.) of Autumn Paddy during 2015-16

Sl No	Components	Kozhikode	Wayanad	Kannur	Kasaragod	State
1	Hired human labour	27179	0	42416	43287	25041
2	Animal labour	361	0	0	0	90
3	Machine labour	8124	0	5745	5765	8125
4	Seed / seedlings	1940	0	2006	2250	2509
5	Farmyard manure and chemical fertilizers	5462	0	11161	21104	6681
6	Plant protection	132	0	0	104	1070
7	Land tax and irrigation cess	71	0	287	55	223
8	Repair and maintenance charges of implements, machinery and building	501	0	2682	1573	878
9	Interest on working capital	2302	0	3160	3695	2415
10	Other expenses	2835	0	1878	1385	4791
11	Total cost 'A' (1-10)	48907	0	69335	79218	51823
12	Interest on fixed capital	1253	0	2947	3198	894
13	Cost 'B1' (11+12)	50160	0	72282	82416	52717
14	Interest on land value	36271	0	38786	28140	42930
15	Cost 'B' (13+14)	86431	0	111069	110556	95647
16	Imputed value of household labour	9781	0	6157	16309	7093
17	Cost 'C' (15+16)	96212	0	117225	126865	102740

A2.2 District wise Cost of Cultivation per hectare (in Rs.) of Winter Paddy during 2015-16

Sl No	Components	Thiruvann thapuram	Kollam	Pathanam hitta	Alappuzha	Kottayam
1	Hired human labour	29553	60979	33311	19245	22900
2	Animal labour	0	0	0	0	0
3	Machine labour	9151	8775	13158	12124	8725
4	Seed / seedlings	2338	2707	3535	4200	177
5	Farmyard manure and chemical fertilizers	6734	12384	7088	6127	5314
6	Plant protection	785	285	1357	522	1256
7	Land tax and irrigation cess	86	690	105	194	228
8	Repair and maintenance charges of implements, machinery and building	509	1492	256	43	322
9	Interest on working capital	2822	4430	3471	2762	2236
10	Other expenses	7884	3473	10980	13013	6341
11	Total cost 'A' (1-10)	59862	95215	73261	58230	47499
12	Interest on fixed capital	1135	736	104	62	143
13	Cost 'B1' (11+12)	60997	95951	73365	58292	47642
14	Interest on land value	6033	56115	25110	34580	30679
15	Cost 'B' (13+14)	121730	152066	98475	92872	78321
16	Imputed value of household labour	15593	7106	6253	3057	11189
17	Cost 'C' (15+16)	137323	159172	104728	95929	89510

A2.2 District wise Cost of Cultivation per hectare (in Rs.) of Winter Paddy during 2015-16

Sl No	Components	Idukki	Eranakulam	Thrissur	Palakkad	Malappuram
1	Hired human labour	20068	14374	16894	23267	24158
2	Animal labour	1896	0	0	0	0
3	Machine labour	4629	10015	13308	13371	0
4	Seed / seedlings	1964	1966	2308	2048	2153
5	Farmyard manure and chemical fertilizers	6206	2835	4777	7134	4833
6	Plant protection	179	95	1575	768	1339
7	Land tax and irrigation cess	25	3389	123	179	274
8	Repair and maintenance charges of implements, machinery and building	867	793	121	116	42
9	Interest on working capital	1874	1670	2402	2450	1954
10	Other expenses	2530	4123	9184	2410	6597
11	Total cost 'A' (1-10)	40238	39260	50692	51743	41350
12	Interest on fixed capital	1412	826	434	966	88
13	Cost 'B1' (11+12)	41650	40086	51126	52709	41438
14	Interest on land value	33798	72915	26476	46211	27880
15	Cost 'B' (13+14)	75448	113001	77602	98920	69318
16	Imputed value of household labour	16169	5299	2561	4850	5849
17	Cost 'C' (15+16)	91617	118300	80163	103770	75167

A2.2 District wise Cost of Cultivation per hectare (in Rs.) of Winter Paddy during 2015-16

Sl No	Components	Kozhikode	Wayanad	Kannur	Kasaragod	State
1	Hired human labour	24516	38845	34729	34522	24656
2	Animal labour	400	0	0	1029	72
3	Machine labour	9665	12442	4525	3584	9851
4	Seed / seedlings	2361	2330	1609	2622	2497
5	Farmyard manure and chemical fertilizers	4483	10742	7099	17136	6286
6	Plant protection	120	279	0	118	809
7	Land tax and irrigation cess	49	391	226	64	502
8	Repair and maintenance charges of implements, machinery and building	181	5990	242	2057	589
9	Interest on working capital	2286	3676	2551	3034	2569
10	Other expenses	4168	8877	3056	1662	7213
11	Total cost 'A' (1-10)	48229	83572	54037	65828	55044
12	Interest on fixed capital	363	2987	754	4720	674
13	Cost 'B1' (11+12)	48592	86559	54791	70548	55718
14	Interest on land value	54129	25941	39708	25564	39259
15	Cost 'B' (13+14)	102721	112500	94499	96112	94977
16	Imputed value of household labour	9145	5917	5244	18428	5985
17	Cost 'C' (15+16)	111866	118417	99743	114540	100962

A2.3 District wise Cost of Cultivation per hectare (in Rs.) of Summer Paddy during 2015-16

Sl No	Components	Thiruvannthapuram	Kollam	Pathanamthitta	Alappuzha	Kottayam
1	Hired human labour	49943	52277	27942	22990	21474
2	Animal labour	0	0	0	0	0
3	Machine labour	6267	9696	17452	10801	7739
4	Seed / seedlings	2312	2652	3692	4597	1980
5	Farmyard manure and chemical fertilizers	5319	17160	6861	7291	5093
6	Plant protection	505	587	2040	704	2329
7	Land tax and irrigation cess	44	299	58	233	1659
8	Repair and maintenance charges of implements, machinery and building	593	2957	50	47	276
9	Interest on working capital	3782	4670	3159	2843	2180
10	Other expenses	11303	11023	5184	10486	4990
11	Total cost 'A' (1-10)	80068	101321	66438	59992	47720
12	Interest on fixed capital	461	2121	16	79	128
13	Cost 'B1' (11+12)	80529	103442	66454	60071	47848
14	Interest on land value	35628	12412	51569	45676	52528
15	Cost 'B' (13+14)	116157	115854	118113	105747	100376
16	Imputed value of household labour	9338	5916	2314	2895	10981
17	Cost 'C' (15+16)	125495	121770	120427	108642	11357

A2.3 District wise Cost of Cultivation per hectare (in Rs.) of Summer Paddy during 2015-16

Sl No	Components	Idukki	Eranakulam	Thrissur	Palakkad	Malappuram
1	Hired human labour	32353	17183	13462	18768	28420
2	Animal labour	0	0	0	0	0
3	Machine labour	2363	10145	12388	29697	13004
4	Seed / seedlings	4078	2080	2462	3285	2049
5	Farmyard manure and chemical fertilizers	11216	4719	5412	5023	6145
6	Plant protection	368	199	1611	323	1361
7	Land tax and irrigation cess	0	42	113	275	2589
8	Repair and maintenance charges of implements, machinery and building	463	425	40	48	205
9	Interest on working capital	2672	1907	2173	3068	2975
10	Other expenses	3057	3821	8118	4258	8519
11	Total cost 'A' (1-10)	56570	40521	45779	64745	65267
12	Interest on fixed capital	688	342	77	1771	518
13	Cost 'B1' (11+12)	57258	40863	45856	66516	65785
14	Interest on land value	35280	68655	28555	61119	39687
15	Cost 'B' (13+14)	92538	109518	74411	127635	105472
16	Imputed value of household labour	47591	10116	2295	6383	6997
17	Cost 'C' (15+16)	140129	119634	76706	134018	112469

A2.3 District wise Cost of Cultivation per hectare (in Rs.) of Summer Paddy during 2015-16

Sl No	Components	Kozhikode	Wayanad	Kannur	Kasaragod	State
1	Hired human labour	24516	38845	39304	37692	24470
2	Animal labour	400	0	0	0	27
3	Machine labour	9665	12442	2601	5688	12834
4	Seed / seedlings	2361	2330	1878	2630	3039
5	Farmyard manure and chemical fertilizers	4483	10742	11710	8564	6402
6	Plant protection	120	279	46	0	1237
7	Land tax and irrigation cess	49	391	176	107	515
8	Repair and maintenance charges of implements, machinery and building	181	5990	5106	2493	311
9	Interest on working capital	2286	3676	3039	2951	2749
10	Other expenses	4168	8877	5239	4441	6971
11	Total cost 'A' (1-10)	48229	83572	69099	64566	58555
12	Interest on fixed capital	363	2987	760	4677	408
13	Cost 'B1' (11+12)	48592	86559	69859	69243	58963
14	Interest on land value	54129	25941	38830	26677	43894
15	Cost 'B' (13+14)	102721	112500	108689	95920	102857
16	Imputed value of household labour	9145	5917	25202	21799	6269
17	Cost 'C' (15+16)	111866	118417	133891	117719	109126

A2.4 District wise Cost of Cultivation per hectare (in Rs.) of Coconut during 2015-16

Sl No	Components	Thiruvananthapuram	Kollam	Pathanamthitta	Alappuzha	Kottayam
1	Hired human labour	57845	50105	24439	38384	32286
2	Animal labour	0	0	0	0	0
3	Machine labour	0	304	0	184	0
4	Seed / seedlings	0	203	1241	537	2254
5	Farmyard manure and chemical fertilizers	7163	26950	8696	6469	12979
6	Plant protection	0	158	86	95	741
7	Land tax and irrigation cess	99	580	296	185	227
8	Repair and maintenance charges of implements, machinery and building	285	3260	1479	156	196
9	Interest on working capital	6884	8007	3702	4694	5103
10	Other expenses	3836	2349	2556	1269	2737
11	Total cost 'A' (1-10)	76112	91916	42495	51973	56553
12	Interest on fixed capital	515	1681	325	409	274
13	Cost 'B1' (11+12)	76627	93597	42820	52382	56827
14	Interest on land value	282671	535977	424746	467922	169616
15	Cost 'B' (13+14)	359298	629574	467566	520304	226443
16	Imputed value of household labour	12156	13001	5516	6707	14315
17	Cost 'C' (15+16)	371454	642575	473082	527011	240758

A2.4 District wise Cost of Cultivation per hectare (in Rs.) of Coconut during 2015-16						
Sl No	Components	Idukki	Eranakulam	Thrissur	Palakkad	Malappuram
1	Hired human labour	27512	25991	33028	27825	55796
2	Animal labour	0	0	0	0	0
3	Machine labour	0	0	0	435	1036
4	Seed / seedlings	1433	1220	146	0	253
5	Farmyard manure and chemical fertilizers	7454	8819	12789	10343	18749
6	Plant protection	0	24	85	0	43
7	Land tax and irrigation cess	0	182	174	206	117
8	Repair and maintenance charges of implements, machinery and building	518	851	154	219	177
9	Interest on working capital	3900	4081	4743	3964	8040
10	Other expenses	2605	4752	1380	1033	4520
11	Total cost 'A' (1-10)	43422	45920	52499	44025	88731
12	Interest on fixed capital	2382	1449	3135	1365	5511
13	Cost 'B1' (11+12)	45804	47369	55634	45390	94242
14	Interest on land value	113286	771678	473505	210852	153227
15	Cost 'B' (13+14)	159090	819047	529139	256242	247469
16	Imputed value of household labour	20290	11867	7386	3926	8265
17	Cost 'C' (15+16)	179380	830914	536525	260168	255734

A2.4 District wise Cost of Cultivation per hectare (in Rs.) of Coconut during 2015-16						
Sl No	Components	Kozhikode	Wayanad	Kannur	Kasaragod	State
1	Hired human labour	26338	41403	29111	37337	37028
2	Animal labour	0	0	0	0	0
3	Machine labour	0	0	0	845	261
4	Seed / seedlings	0	99	0	0	472
5	Farmyard manure and chemical fertilizers	14218	41513	25253	28974	14666
6	Plant protection	0	0	0	0	88
7	Land tax and irrigation cess	58	430	315	196	207
8	Repair and maintenance charges of implements, machinery and building	118	1728	269	1768	635
9	Interest on working capital	4133	8934	5632	6918	5508
10	Other expenses	776	6326	1953	2328	2564
11	Total cost 'A' (1-10)	45641	100433	62533	78066	61429
12	Interest on fixed capital	2250	2561	681	10176	2288
13	Cost 'B1' (11+12)	47891	102994	63214	88242	63717
14	Interest on land value	140976	161316	196565	131634	322491
15	Cost 'B' (13+14)	188867	264310	259779	219876	386208
16	Imputed value of household labour	6587	7856	6072	14825	9017
17	Cost 'C' (15+16)	195454	272166	265851	234701	395225

A2.5 District wise Cost of Cultivation per hectare (in Rs.) of Arecanut during 2015-16						
Sl No	Components	Thiruvananthapuram	Kollam	Pathanamthitta	Alappuzha	Kottayam
1	Hired human labour	29587	48029	312100	14048	24377
2	Animal labour	0	0	0	0	0
3	Machine labour	0	0	0	0	0
4	Seed / seedlings	3529	0	259	230	5573
5	Farmyard manure and chemical fertilizers	4768	24205	5172	9860	13188
6	Plant protection	0	0	0	0	344
7	Land tax and irrigation cess	40	587	432	286	399
8	Repair and maintenance charges of implements, machinery and building	241	11864	3329	926	577
9	Interest on working capital	438	7379	3724	2810	4560
10	Other expenses	3495	1552	599	3962	2117
11	Total cost 'A' (1-10)	45798	93616	44725	32122	51135
12	Interest on fixed capital	843	13535	1135	1541	595
13	Cost 'B1' (11+12)	46641	107151	45860	33663	51730
14	Interest on land value	204179	242225	312968	192970	221133
15	Cost 'B' (13+14)	250820	349376	35882	226633	272863
16	Imputed value of household labour	12806	18278	12359	28418	16072
17	Cost 'C' (15+16)	263626	367654	371187	255051	288935

A2.5 District wise Cost of Cultivation per hectare (in Rs.) of Arecanut during 2015-16

Sl No	Components	Idukki	Ernakulam	Thrissur	Palakkad	Malappuram
1	Hired human labour	20515	25327	47590	18619	69068
2	Animal labour	0	0	0	0	0
3	Machine labour	0	0	0	1062	813
4	Seed / seedlings	0	924	72	0	164
5	Farmyard manure and chemical fertilizers	5344	11652	12871	9911	18064
6	Plant protection	0	155	155	2463	1033
7	Land tax and irrigation cess	19	252	73	218	145
8	Repair and maintenance charges of implements, machinery and building	406	2058	167	459	254
9	Interest on working capital	2807	4163	6243	3315	9177
10	Other expenses	2214	3569	1746	1098	2632
11	Total cost 'A' (1-10)	31305	48100	68917	37145	101350
12	Interest on fixed capital	4287	789	3815	3768	3377
13	Cost 'B1' (11+12)	35592	48889	72732	40913	104727
14	Interest on land value	89324	220969	254158	103421	117780
15	Cost B' (13+14)	124916	269858	326890	144334	222507
16	Imputed value of household labour	22938	24200	11951	10787	9662
17	Cost 'C' (15+16)	147854	294058	338841	155121	232169

A2.5 District wise Cost of Cultivation per hectare (in Rs.) of Arecanut during 2015-16

Sl No	Components	Kozhikode	Wayanad	Kannur	Kasaragod	State
1	Hired human labour	38610	38599	34253	37037	38749
2	Animal labour	0	0	0	0	0
3	Machine labour	0	118	0	845	423
4	Seed / seedlings	0	190	0	0	507
5	Farmyard manure and chemical fertilizers	13358	22046	28130	28974	18171
6	Plant protection	0	0	0	0	864
7	Land tax and irrigation cess	74	355	324	196	213
8	Repair and maintenance charges of implements, machinery and building	94	864	753	1768	909
9	Interest on working capital	5289	6750	6424	6918	6146
10	Other expenses	925	6542	1857	2328	2741
11	Total cost 'A' (1-10)	58350	75464	71741	78066	68723
12	Interest on fixed capital	462	1461	27037	10176	4542
13	Cost 'B1' (11+12)	58812	76925	98778	88242	73265
14	Interest on land value	157956	98389	206462	131634	152189
15	Cost 'B' (13+14)	216768	175314	305240	219876	225454
16	Imputed value of household labour	15618	4943	10793	14825	13453
17	Cost 'C' (15+16)	232386	180257	316033	234701	238907

A2.6 District wise Cost of Cultivation per hectare (in Rs.) of Tapioca during 2015-16						
Sl No	Components	Thiruvananthapuram	Kollam	Pathanamthitta	Alappuzha	Kottayam
1	Hired human labour	101011	206995	49222	57120	40384
2	Animal labour	0	0	0	0	0
3	Machine labour	0	0	0	689	469
4	Seed / seedlings	2613	5093	2388	6599	6647
5	Farmyard manure and chemical fertilizers	10916	51119	15033	23199	17733
6	Plant protection	38	547	0	69	149
7	Land tax and irrigation cess	93	782	369	248	221
8	Repair and maintenance charges of implements, machinery and building	270	20037	1559	378	260
9	Interest on working capital	12670	27476	7822	10010	6841
10	Other expenses	12123	11007	11576	12420	3026
11	Total cost 'A' (1-10)	139734	323056	87969	110732	75730
12	Interest on fixed capital	666	19589	638	1213	282
13	Cost 'B1' (11+12)	140400	342645	88607	111945	76012
14	Interest on land value	224755	330746	327272	313595	305472
15	Cost 'B' (13+14)	365155	673391	415879	425540	381484
16	Imputed value of household labour	30062	83369	22789	37656	34749
17	Cost 'C' (15+16)	395217	756760	438668	463196	416233

A2.6 District wise Cost of Cultivation per hectare (in Rs.) of Tapioca during 2015-16						
Sl No	Components	Idukki	Eranakulam	Thrissur	Palakkad	Malappuram
1	Hired human labour	17952	28790	68385	31694	40476
2	Animal labour	0	0	0	0	0
3	Machine labour	0	2726	3220	3395	2815
4	Seed / seedlings	6732	1498	6874	3262	2359
5	Farmyard manure and chemical fertilizers	9536	19503	15085	7467	21559
6	Plant protection	0	344	581	293	279
7	Land tax and irrigation cess	0	19	119	235	58
8	Repair and maintenance charges of implements, machinery and building	1284	388	66	238	227
9	Interest on working capital	3534	6288	10426	5275	7567
10	Other expenses	1120	10016	10116	6635	8183
11	Total cost 'A' (1-10)	40158	69572	114872	58494	83523
12	Interest on fixed capital	1136	222	8947	1423	3182
13	Cost 'B1' (11+12)	41294	69794	123819	59917	86705
14	Interest on land value	92170	430617	238010	83272	102320
15	Cost 'B' (13+14)	133464	500411	361829	143189	189025
16	Imputed value of household labour	31054	20447	20735	12046	18543
17	Cost 'C' (15+16)	164518	520858	382564	155235	207568

A2.6 District wise Cost of Cultivation per hectare (in Rs.) of Tapioca during 2015-16						
Sl No	Components	Kozhikode	Wayanad	Kannur	Kasaragod	State
1	Hired human labour	40447	49062	76042	21914	46627
2	Animal labour	0	0	0	0	0
3	Machine labour	3996	2975	0	3784	1928
4	Seed / seedlings	2799	4683	17901	3964	4514
5	Farmyard manure and chemical fertilizers	18173	7667	21796	14809	15717
6	Plant protection	0	0	0	0	182
7	Land tax and irrigation cess	38	278	312	209	160
8	Repair and maintenance charges of implements, machinery and building	376	1662	198	4477	884
9	Interest on working capital	6863	7729	12008	4622	7667
10	Other expenses	3215	12906	4336	1753	7703
11	Total cost 'A' (1-10)	75907	86962	132593	55532	85382
12	Interest on fixed capital	753	727	20350	33277	3166
13	Cost 'B1' (11+12)	76660	87689	152943	88809	88548
14	Interest on land value	174743	125207	86360	91549	207475
15	Cost 'B' (13+14)	251403	212896	239303	180358	296023
16	Imputed value of household labour	20983	13739	10807	44426	23552
17	Cost 'C' (15+16)	272386	226635	250110	224784	319575

A2.7 District wise Cost of Cultivation per hectare (in Rs.) of Banana during 2015-16						
Sl No	Components	Thiruvananthapuram	Kollam	Pathanamthitta	Alappuzha	Kottayam
1	Hired human labour	120033	209531	63244	79115	63264
2	Animal labour	0	0	0	0	0
3	Machine labour	0	0	0	0	0
4	Seed / seedlings	18648	36870	21500	20781	13030
5	Farmyard manure and chemical fertilizers	43870	81841	20021	42862	57444
6	Plant protection	70	542	597	480	2016
7	Land tax and irrigation cess	37	507	241	188	306
8	Repair and maintenance charges of implements, machinery and building	361	7766	879	532	355
9	Interest on working capital	21708	33434	12482	20676	14291
10	Other expenses	34455	5553	19454	63526	7157
11	Total cost 'A' (1-10)	239182	376044	138418	228160	157863
12	Interest on fixed capital	825	3486	395	1552	322
13	Cost 'B1' (11+12)	240007	379530	138813	229712	158185
14	Interest on land value	209159	148608	535730	488806	125072
15	Cost 'B' (13+14)	449166	528138	674543	718518	283257
16	Imputed value of household labour	40075	53398	21970	53332	46020
17	Cost 'C' (15+16)	489241	581536	696513	771850	329277

A 2.7 District wise Cost of Cultivation per hectare (in Rs.) of Banana during 2015-16						
Sl No	Components	Idukki	Ernakulam	Thrissur	Palakkad	Malappuram
1	Hired human labour	20593	58583	94325	47321	114714
2	Animal labour	0	0	0	0	163
3	Machine labour	0	0	0	1752	1032
4	Seed / seedlings	16161	19573	30126	11088	28815
5	Farmyard manure and chemical fertilizers	30158	31363	45712	18563	50395
6	Plant protection	810	1012	2396	728	1529
7	Land tax and irrigation cess	0	51	67	101	127
8	Repair and maintenance charges of implements, machinery and building	741	520	1300	324	393
9	Interest on working capital	8141	12278	23308	9385	25225
10	Other expenses	13689	12244	60521	14394	55603
11	Total cost 'A' (1-10)	90293	135624	257755	103656	277996
12	Interest on fixed capital	5544	788	8596	3452	7616
13	Cost 'B1' (11+12)	95837	136412	266351	107108	285612
14	Interest on land value	87259	175037	301912	71471	112050
15	Cost 'B' (13+14)	183096	311449	568263	178579	397662
16	Imputed value of household labour	32110	28843	26070	21088	52191
17	Cost 'C' (15+16)	215206	340292	594333	199667	449853

A 2.7 District wise Cost of Cultivation per hectare (in Rs.) of Banana during 2015-16						
Sl No	Components	Kozhikode	Wayanad	Kannur	Kasaragod	State
1	Hired human labour	39569	64963	66497	56928	74797
2	Animal labour	0	0	0	0	14
3	Machine labour	6621	1846	0	4983	1049
4	Seed / seedlings	19869	13768	24532	24351	19723
5	Farmyard manure and chemical fertilizers	20200	21458	38334	52028	36269
6	Plant protection	288	4490	0	0	1231
7	Land tax and irrigation cess	11	897	107	172	201
8	Repair and maintenance charges of implements, machinery and building	127	1688	162	5591	1057
9	Interest on working capital	11303	13379	15275	16527	15922
10	Other expenses	26481	27262	23384	26979	26167
11	Total cost 'A' (1-10)	124469	149751	168291	187559	176400
12	Interest on fixed capital	475	1265	24144	38133	4402
13	Cost 'B1' (11+12)	124944	151016	192435	225692	180802
14	Interest on land value	95518	99794	135355	119781	173515
15	Cost 'B' (13+14)	220462	250810	327790	345473	354317
16	Imputed value of household labour	29127	20154	15471	88122	33672
17	Cost 'C' (15+16)	249589	270964	343261	433595	387989

A 2.8 District wise Cost of Cultivation per hectare (in Rs.) of Pepper during 2015-16						
Sl No	Components	Thiruvananthapuram	Kollam	Pathanamthitta	Alappuzha	Kottayam
1	Hired human labour	52758	52891	49411	36980	36921
2	Animal labour	0	0	0	0	0
3	Machine labour	0	0	0	0	0
4	Seed / seedlings	0	160	1418	33	554
5	Farmyard manure and chemical fertilizers	6156	25794	7216	20823	12589
6	Plant protection	36	915	0	0	476
7	Land tax and irrigation cess	50	392	316	339	393
8	Repair and maintenance charges of implements, machinery and building	280	5995	2101	1257	245
9	Interest on working capital	6373	8335	6146	6377	5283
10	Other expenses	4784	3592	3414	5931	2290
11	Total cost 'A' (1-10)	70437	98074	70022	71740	58751
12	Interest on fixed capital	1004	10009	844	2494	296
13	Cost 'B1' (11+12)	71441	108083	70866	74234	59047
14	Interest on land value	379816	137274	256106	213412	126796
15	Cost 'B' (13+14)	451257	245357	326972	287646	185843
16	Imputed value of household labour	21092	20158	12636	75103	30845
17	Cost 'C' (15+16)	472349	265515	339608	362749	216688

A 2.8 District wise Cost of Cultivation per hectare (in Rs.) of Pepper during 2015-16						
Sl No	Components	Idukki	Ernakulam	Thrissur	Palakkad	Malappuram
1	Hired human labour	13066	32716	82479	16887	34292
2	Animal labour	0	0	0	0	0
3	Machine labour	0	0	0	0	217
4	Seed / seedlings	11898	710	416	0	687
5	Farmyard manure and chemical fertilizers	8866	16966	15743	3752	7770
6	Plant protection	558	1015	1398	328	140
7	Land tax and irrigation cess	0	214	203	140	140
8	Repair and maintenance charges of implements, machinery and building	1108	2600	62	757	263
9	Interest on working capital	3592	5679	10378	2232	4455
10	Other expenses	1532	5378	3739	1356	1439
11	Total cost 'A' (1-10)	40620	65278	114418	25452	49403
12	Interest on fixed capital	2568	6178	6661	2491	4164
13	Cost 'B1' (11+12)	43188	71456	121079	27943	53567
14	Interest on land value	97861	346308	368870	85967	109629
15	Cost 'B' (13+14)	141049	417764	489949	113910	163196
16	Imputed value of household labour	43620	35208	28166	5942	21517
17	Cost 'C' (15+16)	274698	452972	518115	119852	184713

A 2.8 District wise Cost of Cultivation per hectare (in Rs.) of Pepper during 2015-16						
Sl No	Components	Kozhikode	Wayanad	Kannur	Kasaragod	State
1	Hired human labour	35426	35820	63415	26731	34186
2	Animal labour	0	0	0	0	0
3	Machine labour	0	66	217	1746	74
4	Seed / seedlings	0	5664	174	0	2432
5	Farmyard manure and chemical fertilizers	22776	22983	10717	38339	12191
6	Plant protection	556	608	159	0	437
7	Land tax and irrigation cess	187	348	499	187	219
8	Repair and maintenance charges of implements, machinery and building	115	1210	145	8396	1212
9	Interest on working capital	6227	7144	7649	7042	5240
10	Other expenses	3515	6296	1812	3601	3083
11	Total cost 'A' (1-10)	68802	80139	84787	86042	59074
12	Interest on fixed capital	542	1599	29320	48629	5171
13	Cost 'B1' (11+12)	69344	81738	114107	134671	64245
14	Interest on land value	172909	99979	137076	148478	160597
15	Cost 'B' (13+14)	242253	181717	251183	283149	224842
16	Imputed value of household labour	25612	9809	13690	19638	20471
17	Cost 'C' (15+16)	267865	191526	264873	302787	245313

A 2.9 District wise Cost of Cultivation per hectare (in Rs.) of Ginger during 2015-16						
Sl No	Components	Thiruvananthapuram	Kollam	Pathanamthitta	Alappuzha	Kottayam
1	Hired human labour	113029	147521	52167	81385	30642
2	Animal labour	0	0	0	0	0
3	Machine labour	0	0	0	0	0
4	Seed / seedlings	68762	93357	58061	32226	47602
5	Farmyard manure and chemical fertilizers	31621	38687	12189	29652	22876
6	Plant protection	2173	798	198	173	835
7	Land tax and irrigation cess	79	577	267	315	252
8	Repair and maintenance charges of implements, machinery and building	1274	14826	3044	2965	813
9	Interest on working capital	24067	28561	13347	14898	10712
10	Other expenses	25088	5243	10858	5359	5166
11	Total cost 'A' (1-10)	266093	329570	150131	167153	118898
12	Interest on fixed capital	2685	20126	1534	2052	995
13	Cost 'B1' (11+12)	268778	349696	151665	169205	119893
14	Interest on land value	210167	202513	466666	430325	243574
15	Cost 'B' (13+14)	478945	552209	618331	599530	363467
16	Imputed value of household labour	75467	86687	31430	52261	69371
17	Cost 'C' (15+16)	554412	638896	649761	651791	432838

A 2.9 District wise Cost of Cultivation per hectare (in Rs.) of Ginger during 2015-16						
Sl No	Components	Idukki	Ernakulam	Thrissur	Palakkad	Malappuram
1	Hired human labour	17741	35605	71354	57344	88011
2	Animal labour	0	0	0	0	0
3	Machine labour	0	5554	0	14789	0
4	Seed / seedlings	63699	57780	23818	45029	15662
5	Farmyard manure and chemical fertilizers	12494	17575	20997	13474	33949
6	Plant protection	183	219	963	2237	178
7	Land tax and irrigation cess	8	38	36	121	6439
8	Repair and maintenance charges of implements, machinery and building	1657	1085	142	148	195
9	Interest on working capital	9570	12123	12812	16715	15922
10	Other expenses	1584	4493	10989	34276	21420
11	Total cost 'A' (1-10)	106936	134472	141111	184133	181776
12	Interest on fixed capital	1695	5081	7223	1128	1685
13	Cost 'B1' (11+12)	108631	139553	148334	185261	183461
14	Interest on land value	134347	146437	302816	70919	122467
15	Cost 'B' (13+14)	242978	285990	451150	256180	305928
16	Imputed value of household labour	48436	28145	47414	10267	55164
17	Cost 'C' (15+16)	291414	314135	498564	266447	361092

A 2.9 District wise Cost of Cultivation per hectare (in Rs.) of Ginger during 2015-16

Sl No	Components	Kozhikode	Wayanad	Kannur	Kasaragod	State
1	Hired human labour	59368	117074	89982	11803	64038
2	Animal labour	0	0	0	0	0
3	Machine labour	0	4225	0	3225	7856
4	Seed / seedlings	32160	151566	38599	56672	57828
5	Farmyard manure and chemical fertilizers	23779	82320	34141	38476	25062
6	Plant protection	521	2957	0	0	1561
7	Land tax and irrigation cess	29	360	571	107	323
8	Repair and maintenance charges of implements, machinery and building	235	2228	897	396	1070
9	Interest on working capital	11916	37414	16359	11268	17720
10	Other expenses	3334	15994	863	2501	20858
11	Total cost 'A' (1-10)	131342	414138	181412	124448	196316
12	Interest on fixed capital	434	3774	44372	758	4310
13	Cost 'B1' (11+12)	131776	417912	225784	125206	200626
14	Interest on land value	129062	78517	151511	147695	129789
15	Cost 'B' (13+14)	260838	496429	377295	272901	330415
16	Imputed value of household labour	38510	22157	17882	42661	26682
17	Cost 'C' (15+16)	299348	518586	395177	315562	357097

A 2.10 District wise Cost of Cultivation per hectare (in Rs.) of Turmeric during 2015-16						
Sl No	Components	Thiruvananthapuram	Kollam	Pathanamthitta	Alappuzha	Kottayam
1	Hired human labour	81527	69634	52311	87200	37908
2	Animal labour	0	0	0	0	0
3	Machine labour	0	0	0	0	0
4	Seed / seedlings	11898	28145	12270	7963	26587
5	Farmyard manure and chemical fertilizers	20494	20805	14341	24061	7695
6	Plant protection	0	811	2182	0	603
7	Land tax and irrigation cess	98	504	332	361	235
8	Repair and maintenance charges of implements, machinery and building	1273	15600	5962	1488	782
9	Interest on working capital	12665	12875	8839	13728	7696
10	Other expenses	12729	9354	7285	18051	4171
11	Total cost 'A' (1-10)	140684	157728	103522	152852	85677
12	Interest on fixed capital	3734	19932	2327	2194	1087
13	Cost 'B1' (11+12)	144418	177660	105849	155046	86764
14	Interest on land value	266999	172670	226690	328347	159311
15	Cost 'B' (13+14)	411417	350330	332539	483393	246075
16	Imputed value of household labour	76013	72692	42893	46757	78720
17	Cost 'C' (15+16)	487430	423022	375432	530150	324795

A 2.10 District wise Cost of Cultivation per hectare (in Rs.) of Turmeric during 2015-16

Sl No	Components	Idukki	Ernakulam	Thrissur	Palakkad	Malappuram
1	Hired human labour	22563	38794	67815	20307	42286
2	Animal labour	0	0	0	0	0
3	Machine labour	0	918	0	2045	2035
4	Seed / seedlings	41293	34107	13590	5066	8399
5	Farmyard manure and chemical fertilizers	9377	13670	12057	4249	18937
6	Plant protection	32	262	1081	494	2145
7	Land tax and irrigation cess	0	94	150	65	91
8	Repair and maintenance charges of implements, machinery and building	2006	590	125	218	221
9	Interest on working capital	7400	9388	10272	3897	7680
10	Other expenses	738	6128	8177	6805	2998
11	Total cost 'A' (1-10)	83409	103951	113267	43146	84792
12	Interest on fixed capital	2126	4883	3895	2875	912
13	Cost 'B1' (11+12)	85535	108834	117162	46021	85704
14	Interest on land value	145543	263348	262583	38808	167652
15	Cost 'B' (13+14)	231078	372182	379745	84829	253356
16	Imputed value of household labour	43620	40222	31569	7268	20964
17	Cost 'C' (15+16)	274698	412404	411314	92097	274320

A 2.10 District wise Cost of Cultivation per hectare (in Rs.) of Turmeric during 2015-16

Sl No	Components	Kozhikode	Wayanad	Kannur	Kasaragod	State
1	Hired human labour	25995	54230	38460	14887	32455
2	Animal labour	0	0	0	0	0
3	Machine labour	0	0	0	4912	1354
4	Seed / seedlings	33335	37750	27124	30861	15040
5	Farmyard manure and chemical fertilizers	17161	32363	22110	33341	10090
6	Plant protection	0	0	0	0	551
7	Land tax and irrigation cess	83	479	361	197	120
8	Repair and maintenance charges of implements, machinery and building	510	7775	2629	7015	1233
9	Interest on working capital	7792	12980	8969	8684	6570
10	Other expenses	1424	5458	1993	2834	6212
11	Total cost 'A' (1-10)	86300	151035	101646	102731	73625
12	Interest on fixed capital	709	10259	62730	21316	5460
13	Cost 'B1' (11+12)	87009	161294	164376	124047	79085
14	Interest on land value	142463	126577	152072	131114	119224
15	Cost 'B' (13+14)	229472	287871	316448	255161	198309
16	Imputed value of household labour	38198	65461	38009	99289	26525
17	Cost 'C' (15+16)	267670	353332	354457	354450	224834

A 2.11 District wise Cost of Cultivation per hectare (in Rs.) of Pineapple during 2015-16

Sl No	Components	Thiruvananthapuram	Kollam	Pathanamthitta	Alappuzha	Kottayam
1	Hired human labour	101510	69792	27753	41534	41624
2	Animal labour	0	0	0	0	0
3	Machine labour	0	0	0	0	0
4	Seed / seedlings	82875	62620	21151	21155	53884
5	Farmyard manure and chemical fertilizers	38547	26966	6813	19786	18955
6	Plant protection	719	225	0	1440	7131
7	Land tax and irrigation cess	4	418	21	231	119
8	Repair and maintenance charges of implements, machinery and building	211	2770	394	1067	137
9	Interest on working capital	23663	16837	6847	9567	13612
10	Other expenses	12983	8767	12756	11753	14523
11	Total cost 'A' (1-10)	260512	188395	75735	106533	149985
12	Interest on fixed capital	819	2400	194	770	349
13	Cost 'B1' (11+12)	261331	190795	75929	107303	150334
14	Interest on land value	111139	82031	141646	127957	162004
15	Cost 'B' (13+14)	372470	272826	217575	235260	312338
16	Imputed value of household labour	21277	7798	6510	7439	13414
17	Cost 'C' (15+16)	393747	280624	224085	242699	325752

A 2.11 District wise Cost of Cultivation per hectare (in Rs.) of Pineapple during 2015-16

Sl No	Components	Idukki	Ernakulam	Thrissur	Palakkad	Malappuram
1	Hired human labour	25393	40484	73024	362060	83318
2	Animal labour	0	0	0	0	0
3	Machine labour	0	21320	6739	4392	508
4	Seed / seedlings	50551	71573	85317	14755	23101
5	Farmyard manure and chemical fertilizers	27239	107729	38611	85179	8604
6	Plant protection	130	1330	2525	1922	779
7	Land tax and irrigation cess	4312	32	185	164	8
8	Repair and maintenance charges of implements, machinery and building	727	176	43	901	181
9	Interest on working capital	10383	25991	22023	49719	13003
10	Other expenses	515	17472	14015	28880	13717
11	Total cost 'A' (1-10)	119250	286107	242482	547972	143219
12	Interest on fixed capital	2154	357	2092	2664	1133
13	Cost 'B1' (11+12)	121404	286464	244574	550636	144352
14	Interest on land value	113890	364624	390378	88287	17179
15	Cost 'B' (13+14)	235294	651088	634952	638923	161531
16	Imputed value of household labour	8196	7871	1702	5633	2008
17	Cost 'C' (15+16)	243490	658959	636654	644556	163539

A 2.11 District wise Cost of Cultivation per hectare (in Rs.) of Pineapple during 2015-16

Sl No	Components	Kozhikode	Wayanad	Kannur	Kasaragod	State
1	Hired human labour	31681	69311	66951	38920	82124
2	Animal labour	0	0	0	0	0
3	Machine labour	2984	563	244	5384	7736
4	Seed / seedlings	0	49075	22641	125881	58927
5	Farmyard manure and chemical fertilizers	0	28271	7634	19437	53839
16	Plant protection	0	14316	0	5164	2680
7	Land tax and irrigation cess	0	182	234	60	421
8	Repair and maintenance charges of implements, machinery and building	49	4108	407	124	376
9	Interest on working capital	3467	20709	9849	19882	21987
10	Other expenses	0	45549	1017	4034	14561
11	Total cost 'A' (1-10)	38181	232084	108977	218886	242651
12	Interest on fixed capital	160	2110	507	377	1081
13	Cost 'B1' (11+12)	38341	234194	109484	219263	243732
14	Interest on land value	167525	177666	90178	107516	228302
15	Cost 'B' (13+14)	205866	411860	199662	326779	472034
16	Imputed value of household labour	9182	8342	2991	5202	7792
17	Cost 'C' (15+16)	215048	420202	202653	331981	479826

A2.12 District wise Cost of Cultivation per hectare (in Rs.) of Bitter Gourd (Autumn) during 2015-16

Sl No	Components	Thiruvananthapuram	Kollam	Pathanamthitta	Alappuzha	Kottayam
1	Hired human labour	93684	119666	18697	64761	56371
2	Animal labour	0	0	0	0	0
3	Machine labour	0	0	0	508	0
4	Seed / seedlings	3069	2681	9917	3656	2724
5	Farmyard manure and chemical fertilizers	24131	18640	6776	30986	30503
6	Plant protection	5590	4752	2561	8803	1154
7	Land tax and irrigation cess	13243	3739	1744	3957	12638
8	Repair and maintenance charges of implements, machinery and building	18952	4741	2706	1575	2116
9	Interest on working capital	13164	14928	3957	11128	9398
10	Other expenses	5170	3539	1622	2564	3225
11	Total cost 'A' (1-10)	177003	172686	47980	127938	118129
12	Interest on fixed capital	6367	8571	1353	1285	10367
13	Cost 'B1' (11+12)	183370	181257	49333	129223	128496
14	Interest on land value	182441	156622	193799	316307	120089
15	Cost 'B' (13+14)	365811	337879	243132	445530	248585
16	Imputed value of household labour	102733	58463	62677	116790	98976
17	Cost 'C' (15+16)	468544	396342	305809	562320	347561

A 2.12 District wise Cost of Cultivation per hectare (in Rs.) of Bitter Gourd (Autumn) during 2015-16

Sl No	Components	Idukki	Ernakulam	Thrissur	Palakkad	Malappuram
1	Hired human labour	57035	46899	39243	9455	30254
2	Animal labour	0	0	0	0	0
3	Machine labour	0	2047	1492	745	0
4	Seed / seedlings	3957	2485	4460	1282	2732
5	Farmyard manure and chemical fertilizers	14705	14535	7720	1690	4424
6	Plant protection	0	11202	3294	68	3490
7	Land tax and irrigation cess	5724	6041	4696	1642	4804
8	Repair and maintenance charges of implements, machinery and building	3941	596	25	306	120
9	Interest on working capital	7605	7926	6074	1389	4325
10	Other expenses	349	2096	4528	647	2345
11	Total cost 'A' (1-10)	93316	93827	71532	17224	52494
12	Interest on fixed capital	5349	5921	288	1000	449
13	Cost 'B1' (11+12)	98665	99748	71820	18224	52943
14	Interest on land value	104008	115936	153844	19060	154310
15	Cost 'B' (13+14)	202673	215684	225664	37284	207253
16	Imputed value of household labour	30901	41529	10357	7820	31855
17	Cost 'C' (15+16)	233574	257213	236021	45104	239108

A 2.12 District wise Cost of Cultivation per hectare (in Rs.) of Bitter Gourd (Autumn) during 2015-16

Sl No	Components	Kozhikode	Wayanad	Kannur	Kasaragod	State
1	Hired human labour	74318	0	68893	9060	35343
2	Animal labour	0	0	0	0	0
3	Machine labour	0	0	1650	0	840
4	Seed / seedlings	5570	0	3947	4448	2961
5	Farmyard manure and chemical fertilizers	23872	0	13232	13805	8342
6	Plant protection	161	0	0	0	2308
7	Land tax and irrigation cess	3008	0	5117	5387	4303
8	Repair and maintenance charges of implements, machinery and building	0	0	0	2306	1779
9	Interest on working capital	10436	0	8893	2740	5230
10	Other expenses	435	0	1203	82	2501
11	Total cost 'A' (1-10)	117800	0	102935	37828	63607
12	Interest on fixed capital	4826	0	42309	4794	2576
13	Cost 'B1' (11+12)	122626	0	145244	42622	66183
14	Interest on land value	76279	0	112845	189443	102511
15	Cost 'B' (13+14)	198905	0	258089	232065	168694
16	Imputed value of household labour	11689	0	26966	186198	25512
17	Cost 'C' (15+16)	210594	0	285055	418263	194206

A 2.13 District wise Cost of Cultivation per hectare (in Rs.) of Bitter Gourd (Winter) during 2015-16

Sl No	Components	Thiruvananthapuram	Kollam	Pathanamthitta	Alappuzha	Kottayam
1	Hired human labour	86730	122095	16892	29886	73259
2	Animal labour	0	0	0	0	0
3	Machine labour	0	0	0	0	0
4	Seed / seedlings	2941	0	10777	4695	2425
5	Farmyard manure and chemical fertilizers	44125	2798	8512	53758	21794
6	Plant protection	2029	452	1738	2544	2987
7	Land tax and irrigation cess	9776	1190	112	291	290
8	Repair and maintenance charges of implements, machinery and building	787	12501	2391	3217	1724
9	Interest on working capital	18419	14641	9091	15898	11400
10	Other expenses	48368	21068	52995	68097	13534
11	Total cost 'A' (1-10)	213175	174745	102508	178386	127413
12	Interest on fixed capital	6962	73509	1357	4209	1885
13	Cost 'B1' (11+12)	220137	248254	103865	182595	129298
14	Interest on land value	214834	233461	281359	250821	198693
15	Cost 'B' (13+14)	434971	481715	385224	433416	327991
16	Imputed value of household labour	131296	72470	64687	127542	106811
17	Cost 'C' (15+16)	566267	554185	449911	560958	434802

A 2.13 District wise Cost of Cultivation per hectare (in Rs.) of Bitter Gourd (Winter) during 2015-16

Sl No	Components	Idukki	Ernakulam	Thrissur	Palakkad	Malappuram
1	Hired human labour	18524	29494	52945	25401	25105
2	Animal labour	0	0	0	0	0
3	Machine labour	0	1313	0	2652	0
4	Seed / seedlings	1793	2276	9350	8260	4129
5	Farmyard manure and chemical fertilizers	17221	17929	28277	12442	9290
6	Plant protection	3062	1000	2479	3372	2356
7	Land tax and irrigation cess	0	68	93	216	12
8	Repair and maintenance charges of implements, machinery and building	1798	1815	4798	2242	500
9	Interest on working capital	4952	6920	14186	9079	5957
10	Other expenses	8915	17183	48807	38666	18693
11	Total cost 'A' (1-10)	56265	77998	160935	102330	66042
12	Interest on fixed capital	4509	2943	16536	10990	2674
13	Cost 'B1' (11+12)	60774	80941	177471	113320	68716
14	Interest on land value	72515	187514	274114	75791	121203
15	Cost 'B' (13+14)	133289	268455	451585	198111	189919
16	Imputed value of household labour	32054	28176	39321	40239	35734
17	Cost 'C' (15+16)	165343	296631	490906	229350	225653

A 2.13 District wise Cost of Cultivation per hectare (in Rs.) of Bitter Gourd (Winter) during 2015-16

Sl No	Components	Kozhikode	Wayanad	Kannur	Kasaragod	State
1	Hired human labour	79328	52966	49066	4351	47691
2	Animal labour	0	0	0	1740	18
3	Machine labour	0	6612	3478	0	1555
4	Seed / seedlings	5528	13270	4576	4471	5810
5	Farmyard manure and chemical fertilizers	16302	19410	16942	22619	19118
6	Plant protection	339	3355	534	0	2319
7	Land tax and irrigation cess	0	556	1171	0	1066
8	Repair and maintenance charges of implements, machinery and building	0	15903	2685	21272	4827
9	Interest on working capital	13367	13158	7660	6332	10559
10	Other expenses	32175	35966	2001	30140	29076
11	Total cost 'A' (1-10)	147039	161196	88113	90925	122039
12	Interest on fixed capital	58	15526	46529	91515	14103
13	Cost 'B1' (11+12)	147097	176722	134642	182440	136142
14	Interest on land value	228796	75104	132122	163838	152960
15	Cost 'B' (13+14)	375893	251826	266764	346278	289102
16	Imputed value of household labour	17748	42960	28212	248589	54705
17	Cost 'C' (15+16)	393641	294786	294976	594867	343807

A 2.14 District wise Cost of Cultivation per hectare (in Rs.) of Bitter Gourd (Summer) during 2015-16

Sl No	Components	Thiruvananthapuram	Kollam	Pathanamthitta	Alappuzha	Kottayam
1	Hired human labour	91387	114927	25358	65020	76899
2	Animal labour	0	0	0	0	0
3	Machine labour	0	0	0	1031	0
4	Seed / seedlings	3489	4100	8611	5840	2419
5	Farmyard manure and chemical fertilizers	46377	25269	10931	33554	16899
6	Plant protection	2439	2565	2059	795	1376
7	Land tax and irrigation cess	23	569	190	314	261
8	Repair and maintenance charges of implements, machinery and building	1173	3451	1966	1066	1808
9	Interest on working capital	20538	17361	9704	14887	11436
10	Other expenses	61689	26748	50078	42630	16768
11	Total cost 'A' (1-10)	227115	194990	108897	165137	127866
12	Interest on fixed capital	4440	5368	1027	2733	2075
13	Cost 'B1' (11+12)	231555	200358	109924	167870	129941
14	Interest on land value	199397	112121	156075	280813	95699
15	Cost 'B' (13+14)	430952	312479	265999	448683	225640
16	Imputed value of household labour	95371	66710	55434	138023	80672
17	Cost 'C' (15+16)	526323	379189	321433	586706	306312

A 2.14 District wise Cost of Cultivation per hectare (in Rs.) of Bitter Gourd (Summer) during 2015-16

Sl No	Components	Idukki	Ernakulam	Thrissur	Palakkad	Malappuram
1	Hired human labour	0	39518	65256	2206	33519
2	Animal labour	0	0	0	0	0
3	Machine labour	0	1315	0	0	0
4	Seed / seedlings	0	2759	8367	824	3300
5	Farmyard manure and chemical fertilizers	0	10005	26798	1383	8993
6	Plant protection	0	590	2840	110	2653
7	Land tax and irrigation cess	0	29	96	22	39
8	Repair and maintenance charges of implements, machinery and building	0	1032	1463	231	755
9	Interest on working capital	0	5964	14844	546	6310
10	Other expenses	0	5454	45175	939	14639
11	Total cost 'A' (1-10)	0	66666	164839	6261	70208
12	Interest on fixed capital	0	1135	13883	11278	5171
13	Cost 'B1' (11+12)	0	67801	178722	17539	75379
14	Interest on land value	0	219066	291950	11192	106968
15	Cost 'B' (13+14)	0	286867	470672	28731	182347
16	Imputed value of household labour	0	25701	33020	15213	68112
17	Cost 'C' (15+16)	0	312568	503692	43944	250459

A 2.14 District wise Cost of Cultivation per hectare (in Rs.) of Bitter Gourd (Summer) during 2015-16

Sl No	Components	Kozhikode	Wayanad	Kannur	Kasaragod	State
1	Hired human labour	28871	118736	45560	16558	64275
2	Animal labour	0	0	0	0	0
3	Machine labour	3960	5819	870	3794	1167
4	Seed / seedlings	3210	10312	2583	5619	4852
5	Farmyard manure and chemical fertilizers	18368	17431	14026	30008	20785
6	Plant protection	1209	2914	924	0	1804
7	Land tax and irrigation cess	106	725	265	68	223
8	Repair and maintenance charges of implements, machinery and building	1859	8502	566	27920	2559
9	Interest on working capital	8195	18310	7262	7009	12133
10	Other expenses	26336	27891	8658	14112	28447
11	Total cost 'A' (1-10)	92114	210640	80714	105088	136245
12	Interest on fixed capital	7660	12455	842	93343	7348
13	Cost 'B1' (11+12)	99774	223095	81556	198431	143593
14	Interest on land value	122811	31946	176849	185617	148362
15	Cost 'B' (13+14)	222585	255041	258405	384048	291955
16	Imputed value of household labour	79537	46276	37024	160514	60073
17	Cost 'C' (15+16)	302122	301317	295429	544562	352028

A 2.15 District wise Cost of Cultivation per hectare (in Rs.) of Cowpea (Autumn) during 2015-16						
Sl No	Components	Thiruvananthapuram	Kollam	Pathanamthitta	Alappuzha	Kottayam
1	Hired human labour	76201	60612	28224	47384	50254
2	Animal labour	0	0	0	0	0
3	Machine labour	0	0	0	199	0
4	Seed / seedlings	3596	1389	5560	5118	2807
5	Farmyard manure and chemical fertilizers	38448	14149	10943	28663	26379
6	Plant protection	2879	670	1166	8279	2214
7	Land tax and irrigation cess	41	245	247	309	177
8	Repair and maintenance charges of implements, machinery and building	423	2682	3202	1949	1514
9	Interest on working capital	17412	9017	8899	12751	14667
10	Other expenses	53000	13345	43101	37870	65011
11	Total cost 'A' (1-10)	192000	102109	101342	142522	163023
12	Interest on fixed capital	4585	5385	1400	3004	2603
13	Cost 'B1' (11+12)	196585	107494	102742	145526	165626
14	Interest on land value	191834	118346	207845	369544	110450
15	Cost 'B' (13+14)	388419	225840	310567	515070	276076
16	Imputed value of household labour	118078	33342	54025	117225	74985
17	Cost 'C' (15+16)	506497	259182	364592	632295	351061

A 2.15 District wise Cost of Cultivation per hectare (in Rs.) of Cowpea (Autumn) during 2015-16						
Sl No	Components	Idukki	Ernakulam	Thrissur	Palakkad	Malappuram
1	Hired human labour	38322	26423	43287	11851	20784
2	Animal labour	0	0	0	0	0
3	Machine labour	0	1679	0	760	480
4	Seed / seedlings	1680	4663	3538	897	2697
5	Farmyard manure and chemical fertilizers	12246	28019	13027	4355	6031
6	Plant protection	406	1353	2494	711	5182
7	Land tax and irrigation cess	0	32	70	62	3461
8	Repair and maintenance charges of implements, machinery and building	2559	747	309	189	281
9	Interest on working capital	5776	10461	8073	2573	4667
10	Other expenses	5101	42472	18387	7153	11498
11	Total cost 'A' (1-10)	66090	115849	89185	28551	55081
12	Interest on fixed capital	38897	5069	6543	798	754
13	Cost 'B1' (11+12)	104987	120918	95728	29349	55835
14	Interest on land value	96147	138092	282290	20015	189616
15	Cost 'B' (13+14)	201134	259010	378018	49364	245451
16	Imputed value of household labour	55109	35112	52869	9231	38586
17	Cost 'C' (15+16)	256243	294122	430887	58595	284037

A 2.15 District wise Cost of Cultivation per hectare (in Rs.) of Cowpea (Autumn) during 2015-16						
Sl No	Components	Kozhikode	Wayanad	Kannur	Kasaragod	State
1	Hired human labour	6589	0	43732	0	30048
2	Animal labour	0	0	0	0	0
3	Machine labour	0	0	3530	0	548
4	Seed / seedlings	2746	0	2138	8237	2186
5	Farmyard manure and chemical fertilizers	6809	0	23288	21300	13393
6	Plant protection	1977	0	0	0	1882
7	Land tax and irrigation cess	0	0	339	82	375
8	Repair and maintenance charges of implements, machinery and building	0	0	0	494	826
9	Interest on working capital	3932	0	7370	4387	6892
10	Other expenses	21196	0	1009	14332	20867
11	Total cost 'A' (1-10)	43249	0	81406	48832	77017
12	Interest on fixed capital	3418	0	99376	3756	5237
13	Cost 'B1' (11+12)	46667	0	180782	52588	82254
14	Interest on land value	178461	0	127584	185325	108667
15	Cost 'B' (13+14)	225128	0	308366	237913	190921
16	Imputed value of household labour	16803	0	38669	147502	39519
17	Cost 'C' (15+16)	241931	0	347035	385415	230440

A 2.16 District wise Cost of Cultivation per hectare (in Rs.) of Cowpea (Winter) during 2015-16

Sl No	Components	Thiruvananthapuram	Kollam	Pathanamthitta	Alappuzha	Kottayam
1	Hired human labour	64773	103401	15289	55345	58262
2	Animal labour	0	0	0	0	0
3	Machine labour	0	540	0	0	0
4	Seed / seedlings	3721	2618	5039	6863	3248
5	Farmyard manure and chemical fertilizers	36709	26816	15391	51627	25100
6	Plant protection	2452	1030	2610	5597	3342
7	Land tax and irrigation cess	78	589	197	484	234
8	Repair and maintenance charges of implements, machinery and building	1098	17608	1777	1891	1090
9	Interest on working capital	15369	15975	8550	17788	15147
10	Other expenses	46035	25345	47176	58452	61519
11	Total cost 'A' (1-10)	170235	193922	96020	198047	167942
12	Interest on fixed capital	3031	13935	821	1605	1521
13	Cost 'B1' (11+12)	173266	207857	96841	199652	169463
14	Interest on land value	187676	135626	198181	257040	97191
15	Cost 'B' (13+14)	360942	343483	295022	456692	266654
16	Imputed value of household labour	127873	70962	69401	118987	91133
17	Cost 'C' (15+16)	488815	414445	364423	575679	357787

A 2.16 District wise Cost of Cultivation per hectare (in Rs.) of Cowpea (Winter) during 2015-16

Sl No	Components	Idukki	Ernakulam	Thrissur	Palakkad	Malappuram
1	Hired human labour	16676	24631	50360	26810	12887
2	Animal labour	0	0	0	154	0
3	Machine labour	0	2107	0	223	0
4	Seed / seedlings	1163	2158	3948	4473	4725
5	Farmyard manure and chemical fertilizers	9855	20634	19045	12794	8041
6	Plant protection	540	2444	2842	2398	2688
7	Land tax and irrigation cess	0	1529	378	311	138
8	Repair and maintenance charges of implements, machinery and building	3014	631	3569	650	530
9	Interest on working capital	3710	7562	11049	7633	3887
10	Other expenses	8864	23648	34299	29478	10531
11	Total cost 'A' (1-10)	43822	85344	125490	84924	43427
12	Interest on fixed capital	8206	1581	14681	6079	2718
13	Cost 'B1' (11+12)	52028	86925	140171	91003	46145
14	Interest on land value	73135	174740	296713	83127	152803
15	Cost 'B' (13+14)	125163	261665	436884	174130	198948
16	Imputed value of household labour	26931	22075	47539	51888	51970
17	Cost 'C' (15+16)	152094	283740	484423	226018	250918

A 2.16 District wise Cost of Cultivation per hectare (in Rs.) of Cowpea (Winter) during 2015-16

Sl No	Components	Kozhikode	Wayanad	Kannur	Kasaragod	State
1	Hired human labour	16003	43994	40419	50046	39384
2	Animal labour	0	0	0	244	22
3	Machine labour	1381	1827	4633	2573	774
4	Seed / seedlings	1860	6958	3851	8350	3754
5	Farmyard manure and chemical fertilizers	12728	18105	25045	22446	19537
6	Plant protection	1774	2645	306	0	2067
7	Land tax and irrigation cess	1842	221	824	0	409
8	Repair and maintenance charges of implements, machinery and building	0	9415	1544	6119	3439
9	Interest on working capital	6169	9977	7565	9878	9351
10	Other expenses	27946	26245	1393	15118	27976
11	Total cost 'A' (1-10)	69703	119387	85580	114774	106713
12	Interest on fixed capital	182	16142	28033	27064	8290
13	Cost 'B1' (11+12)	69885	135529	113613	141838	115003
14	Interest on land value	113574	116998	102991	151239	138668
15	Cost 'B' (13+14)	183459	252527	216604	293077	253671
16	Imputed value of household labour	9966	46154	19028	132466	57573
17	Cost 'C' (15+16)	193425	298681	235632	425543	311244

A 2.17 District wise Cost of Cultivation per hectare (in Rs.) of Cowpea (Summer) during 2015-16						
Sl No	Components	Thiruvananthapuram	Kollam	Pathanamthitta	Alappuzha	Kottayam
1	Hired human labour	77943	103073	26387	51769	75303
2	Animal labour	0	0	0	0	0
3	Machine labour	0	0	0	1471	0
4	Seed / seedlings	3589	4213	5119	4192	3054
5	Farmyard manure and chemical fertilizers	31834	28300	8841	32400	19765
6	Plant protection	2783	2944	2154	76	1662
7	Land tax and irrigation cess	1221	459	193	340	203
8	Repair and maintenance charges of implements, machinery and building	608	3858	1867	777	1063
9	Interest on working capital	15880	15828	8951	12210	14782
10	Other expenses	42647	19751	47012	32194	48031
11	Total cost 'A' (1-10)	176505	178426	100524	135429	163863
12	Interest on fixed capital	2107	8467	727	2207	1155
13	Cost 'B1' (11+12)	178612	186893	101251	137636	165018
14	Interest on land value	261813	131829	208074	120386	112134
15	Cost 'B' (13+14)	440425	318722	309325	258022	277152
16	Imputed value of household labour	109023	76732	64000	129074	78708
17	Cost 'C' (15+16)	549448	395454	373325	387096	355860

A 2.17 District wise Cost of Cultivation per hectare (in Rs.) of Cowpea (Summer) during 2015-16

Sl No	Components	Idukki	Ernakulam	Thrissur	Palakkad	Malappuram
1	Hired human labour	18189	39394	42538	2637	28487
2	Animal labour	0	0	0	0	0
3	Machine labour	0	924	0	0	0
4	Seed / seedlings	5483	4523	4051	619	3890
5	Farmyard manure and chemical fertilizers	22817	30601	11931	1106	5573
6	Plant protection	1297	1525	3275	84	953
7	Land tax and irrigation cess	0	31	85	74	387
8	Repair and maintenance charges of implements, machinery and building	0	1116	1097	122	509
9	Interest on working capital	7252	9983	10009	564	4279
10	Other expenses	24735	22861	38299	1190	3885
11	Total cost 'A' (1-10)	79773	110958	111285	6396	47963
12	Interest on fixed capital	1487	5779	7096	9918	3826
13	Cost 'B1' (11+12)	81260	116737	118381	16314	51789
14	Interest on land value	150243	218169	232242	22197	174992
15	Cost 'B' (13+14)	231503	3349	350623	38511	226781
16	Imputed value of household labour	91032	40670	48432	19148	56440
17	Cost 'C' (15+16)	322535	375576	399055	57659	283221

A 2.17 District wise Cost of Cultivation per hectare (in Rs.) of Cowpea (Summer) during 2015-16						
Sl No	Components	Kozhikode	Wayanad	Kannur	Kasaragod	State
1	Hired human labour	20763	65313	27506	42854	47094
2	Animal labour	0	0	0	0	0
3	Machine labour	5973	3428	1711	9151	943
4	Seed / seedlings	2216	8080	3656	8107	4054
5	Farmyard manure and chemical fertilizers	13453	21758	25898	21392	18179
6	Plant protection	744	1802	27	0	1574
7	Land tax and irrigation cess	18	276	372	56	326
8	Repair and maintenance charges of implements, machinery and building	1104	12755	0	15295	2294
9	Interest on working capital	5806	12414	6493	9307	9875
10	Other expenses	14914	23755	6136	11563	26909
11	Total cost 'A' (1-10)	64991	149581	71799	117725	111248
12	Interest on fixed capital	4839	11630	23651	48502	6980
13	Cost 'B1' (11+12)	69830	161211	95450	166227	118228
14	Interest on land value	159268	79996	103687	160102	154246
15	Cost 'B' (13+14)	229098	241207	199137	326329	272474
16	Imputed value of household labour	25442	34541	38643	131171	66182
17	Cost 'C' (15+16)	254540	275748	237780	457500	338656

A 2.18 District wise Cost of Cultivation per hectare (in Rs.) of Cardamom during 2015-16					
Sl No	Components	Idukki	Palakkad	Wayanad	State
1	Hired human labour	23024	120279	91723	55996
2	Animal labour	0	0	0	0
3	Machine labour	0	0	3421	1194
4	Seed / seedlings	19487	0	3186	11995
5	Farmyard manure and chemical fertilizers	14833	18135	38477	23390
6	Plant protection	6617	3375	1136	4404
7	Land tax and irrigation cess	1927	0	399	1216
8	Repair and maintenance charges of implements, machinery and building	1542	45	4187	2328
9	Interest on working capital	7147	14329	14054	10222
10	Other expenses	7508	1502	2598	5239
11	Total cost 'A' (1-10)	82085	157665	159181	115984
12	Interest on fixed capital	4434	11810	4034	4977
13	Cost 'B1' (11+12)	86519	169475	163215	120961
14	Interest on land value	91282	22747	98635	87509
15	Cost 'B' (13+14)	177801	192222	261850	208470
16	Imputed value of household labour	27806	0	16002	21114
17	Cost 'C' (15+16)	205607	192222	277852	229584

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	35.81	40.49	76.30
2	Kollam	37.56	53.70	91.26
3	Pathanamthitta	13.43	61.81	75.24
4	Alappuzha	36.10	49.13	85.23
5	Kottayam	7.72	82.11	89.83
6	Idukki	27.03	41.30	68.33
7	Eranakulam	27.89	53.14	81.02
8	Thrissur	33.51	44.98	78.50
9	Palakkad	19.37	63.59	83.06
10	Malappuram	37.66	34.53	72.19
11	Kozhikkode	15.57	55.56	71.13
12	Wayanad	0	0	0
13	Kannur	22.99	66.78	89.77
14	Kasaragod	26.56	48.22	74.77
	State	24.46	58.81	83.27

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	26.92	41.22	68.15
2	Kollam	32.25	57.98	90.23
3	Pathanamthitta	29.86	56.86	86.72
4	Alappuzha	34.64	50.54	85.18
5	Kottayam	37.88	31.44	69.32
6	Idukki	34.73	15.81	50.54
7	Eranakulam	37.84	35.45	73.29
8	Thrissur	42.76	45.49	88.26
9	Palakkad	21.27	65.02	86.29
10	Malappuram	52.42	28.95	81.38
11	Kozhikkode	19.03	44.36	63.39
12	Wayanad	38.37	48.51	86.88
13	Kannur	11.39	76.29	87.69
14	Kasaragod	24.77	43.31	68.08
	State	32.90	48.37	81.27

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	28.81	54.11	82.92
2	Kollam	65.99	24.11	90.11
3	Pathanamthitta	30.12	51.68	88.66
4	Alappuzha	36.98	51.68	88.66
5	Kottayam	36.61	32.77	69.38
6	Idukki	27.89	12.84	40.73
7	Eranakulam	29.49	31.77	61.26
8	Thrissur	59.70	24.20	83.89
9	Palakkad	25.11	52.69	77.80
10	Malappuram	54.11	27.21	81.32
11	Kozhikkode	10.14	62.06	72.19
12	Wayanad	26.41	33.47	59.88
13	Kannur	11.28	43.85	55.13
14	Kasaragod	19.05	48.97	68.02
	State	34.20	45.14	79.34

A3.4 Percentage of Hired human labour hours to total human labour hours under Coconut				
Sl No	District	Male	Female	Total
1	Thiruvananthapuram	70.71	2.83	73.54
2	Kollam	79.42	0	79.42
3	Pathanamthitta	79.73	1.81	81.54
4	Alappuzha	76.51	0.71	77.22
5	Kottayam	60.71	10.23	70.93
6	Idukki	40.30	9.50	49.80
7	Eranakulam	50.25	11.71	61.96
8	Thrissur	60.97	21.09	82.06
9	Palakkad	66.44	18.03	84.47
10	Malappuram	74.23	9.72	83.95
11	Kozhikkode	58.61	6.80	65.41
12	Wayanad	81.58	2.28	83.86
13	Kannur	60.88	20.51	81.39
14	Kasaragod	48.35	18.39	66.74
	State	66.21	9.88	76.09

A 3.5 Percentage of Hired human labour hours to total human labour hours under Arecanut				
Sl No	District	Male	Female	Total
1	Thiruvananthapuram	63.53	0	63.53
2	Kollam	72.52	0	72.52
3	Pathanamthitta	69.95	1.66	71.61
4	Alappuzha	29.27	0	29.27
5	Kottayam	44.62	16.22	60.84
6	Idukki	40.14	7.77	47.91
7	Eranakulam	31.29	22.40	53.70
8	Thrissur	55.54	23.37	78.91
9	Palakkad	42.76	13.71	56.47
10	Malappuram	64.97	20.82	85.78
11	Kozhikkode	43.88	3.94	47.82
12	Wayanad	72.71	15.72	88.43
13	Kannur	51.95	17.82	69.77
14	Kasaragod	38.24	12.40	50.64
	State	54.69	15.83	70.53

A 3.6 Percentage of Hired human labour hours to total human labour hours under Tapioca				
Sl No	District	Male	Female	Total
1	Thiruvananthapuram	71.26	1.13	72.39
2	Kollam	71.41	0	71.41
3	Pathanamthitta	62.47	5.93	68.41
4	Alappuzha	55.38	0.46	55.84
5	Kottayam	40.53	14.60	55.12
6	Idukki	23.70	12.40	36.10
7	Eranakulam	38.63	17.91	56.54
8	Thrissur	43.04	36.09	79.13
9	Palakkad	36.93	38.16	75.09
10	Malappuram	54.85	13.23	68.08
11	Kozhikkode	52.30	4.58	56.87
12	Wayanad	76.63	1.60	78.23
13	Kannur	81.23	6.00	87.23
14	Kasaragod	20.14	11.04	31.17

A 3.7 Percentage of Hired human labour hours to total human labour hours under Banana				
SI No	District	Male	Female	Total
1	Thiruvananthapuram	15.18	77.53	92.71
2	Kollam	79.83	0	79.83
3	Pathanamthitta	67.79	6.49	74.29
4	Alappuzha	53.23	0	53.23
5	Kottayam	43.48	16.82	60.30
6	Idukki	24.35	15.30	39.65
7	Eranakulam	49.45	15.02	64.47
8	Thrissur	55.92	23.59	79.50
9	Palakkad	51.59	18.14	69.73
10	Malappuram	62.48	5.99	68.47
11	Kozhikkode	51.41	0.29	51.70
12	Wayanad	76.09	0	76.09
13	Kannur	11.16	0.83	11.99
14	Kasaragod	32.57	10.20	42.77
	State	40.81	26.68	67.48
	State	50.85	14.16	65.01

A 3.8 Percentage of Hired human labour hours to total human labour hours under Pepper				
SI No	District	Male	Female	Total
1	Thiruvananthapuram	64.50	0.89	65.38
2	Kollam	71.75	0	71.75
3	Pathanamthitta	75.96	3.51	79.47
4	Alappuzha	25.83	1.55	27.38
5	Kottayam	39.14	16.17	55.31
6	Idukki	24.53	6.40	30.94
7	Eranakulam	34.15	12.92	47.07
8	Thrissur	45.92	30.55	76.48
9	Palakkad	37.32	30.10	67.42
10	Malappuram	33.38	25.94	59.32
11	Kozhikkode	43.61	0.97	44.58
12	Wayanad	69.49	7.88	80.29
13	Kannur	75.63	4.66	58.24

14	Kasaragod	33.56	24.68	58.24
	State	47.04	13.65	60.69

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

Sl No	District	Male	Female	Total
1	Thiruvananthapuram	46.82	7.96	54.79
2	Kollam	63.91	0	63.91
3	Pathanamthitta	42.47	21.48	63.94
4	Alappuzha	59.46	0	59.46
5	Kottayam	23.65	6.54	30.19
6	Idukki	11.31	17.27	28.58
7	Eranakulam	31.21	23.67	54.88
8	Thrissur	39.49	22.37	61.86
9	Palakkad	41.90	46.16	88.06
10	Malappuram	44.92	15.99	60.91
11	Kozhikkode	37.86	14.19	52.05
12	Wayanad	60.29	24.00	84.29
13	Kannur	27.67	59.42	87.09
14	Kasaragod	1.63	26.51	28.14
	State	42.33	32.26	74.59

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

Sl No	District	Male	Female	Total
1	Thiruvananthapuram	44.55	1.32	45.87
2	Kollam	49.01	0	49.01
3	Pathanamthitta	36.12	20.94	57.05
4	Alappuzha	61.55	0	61.55
5	Kottayam	25.69	6.33	32.02
6	Idukki	15.31	19.53	34.84
7	Eranakulam	32.37	15.02	47.39
8	Thrissur	39.57	31.94	71.50
9	Palakkad	31.24	46.84	78.08
10	Malappuram	42.46	23.91	66.37
11	Kozhikkode	30.95	1.48	32.43
12	Wayanad	29.17	16.34	45.52
13	Kannur	38.45	16.23	54.68
14	Kasaragod	5.69	7.74	13.34
	State	32.81	25.13	57.94

<u>A 3.11 Percentage of Hired human labour hours to total human labour hours under Pineapple</u>				
Sl No	District	Male	Female	Total
1	Thiruvananthapuram	74.42	7.36	81.78
2	Kollam	74.16	15.79	89.95
3	Pathanamthitta	45.16	37.30	82.46
4	Alappuzha	85.59	0	85.59
5	Kottayam	2.76	96.00	98.76
6	Idukki	34.30	40.28	74.58
7	Eranakulam	50.98	29.83	80.81
8	Thrissur	43.93	54.23	98.16
9	Palakkad	15.22	82.03	97.25
10	Malappuram	33.41	65.19	98.60
11	Kozhikkode	59.54	8.37	67.91
12	Wayanad	47.39	42.72	90.12
13	Kannur	63.05	33.00	96.05
14	Kasaragod	40.72	49.13	89.85
	State	12.79	83.79	96.58

<u>A 3.12 Percentage of Hired human labour hours to total human labour hours under Bitter Gourd (Autumn)</u>				
Sl No	District	Male	Female	Total
1	Thiruvananthapuram	45.35	0	45.35
2	Kollam	65.39	0	65.39
3	Pathanamthitta	20.55	2.17	22.72
4	Alappuzha	28.69	0	28.69
5	Kottayam	26.93	9.57	36.50
6	Idukki	64.86	0	64.86
7	Eranakulam	29.53	18.54	48.07
8	Thrissur	55.09	25.75	80.84
9	Palakkad	32.64	24.99	57.63
10	Malappuram	40.06	8.86	48.92
11	Kozhikkode	76.16	2.70	78.87
12	Wayanad	0	0	0
13	Kannur	25.27	47.42	72.70
14	Kasaragod	0	8.06	8.06
	State	44.35	14.43	58.78

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	37.60	0.16	37.76
2	Kollam	61.64	0	61.64
3	Pathanamthitta	19.09	0.65	19.74
4	Alappuzha	11.92	1.99	13.91
5	Kottayam	21.47	22.05	43.52
6	Idukki	31.45	4.39	35.83
7	Eranakulam	26.09	21.01	47.10
8	Thrissur	43.21	13.25	56.46
9	Palakkad	23.30	17.97	41.27
10	Malappuram	31.12	8.31	39.44
11	Kozhikkode	64.94	5.82	70.76
12	Wayanad	47.78	7.19	54.97
13	Kannur	33.67	40.09	73.76
14	Kasaragod	0.94	0.69	1.64
	State	36.54	10.11	46.65

A 3.14 Percentage of Hired human labour hours to total human labour hours under Bitter Gourd (Summer)				
Sl No	District	Male	Female	Total
1	Thiruvananthapuram	45.38	0	45.38
2	Kollam	59.49	3.02	62.51
3	Pathanamthitta	28.63	2.71	31.33
4	Alappuzha	28.33	0	28.33
5	Kottayam	31.40	16.55	47.95
6	Idukki	0	0	0
7	Eranakulam	39.25	22.57	61.81
8	Thrissur	39.87	26.85	66.72
9	Palakkad	5.71	7.10	12.81
10	Malappuram	22.08	9.40	31.48
11	Kozhikkode	18.48	0	18.48
12	Wayanad	60.55	9.51	70.06
13	Kannur	29.18	33.10	62.28
14	Kasaragod	1.19	12.59	13.78
	State	41.64	10.42	52.07

A 3.15 Percentage of Hired human labour hours to total human labour hours under Cowpea (Autumn)				
Sl No	District	Male	Female	Total
1	Thiruvananthapuram	37.40	0	37.40
2	Kollam	63.29	0	63.29
3	Pathanamthitta	30.31	6.41	36.72
4	Alappuzha	23.96	0	23.96
5	Kottayam	29.89	9.33	39.22
6	Idukki	41.02	0	41.02
7	Eranakulam	31.87	6.78	38.65
8	Thrissur	34.52	11.75	46.27
9	Palakkad	33.42	24.53	57.95
10	Malappuram	27.25	7.04	34.29
11	Kozhikkode	17.58	0	17.58
12	Wayanad	0	0	0
13	Kannur	40.70	9.50	50.20
14	Kasaragod	0	0	0
	State	35.45	7.99	43.44

A3.16 Percentage of Hired human labour hours to total human labour hours under Cowpea (Winter)				
Sl No	District	Male	Female	Total
1	Thiruvananthapuram	30.75	0.18	30.94
2	Kollam	55.50	2.70	58.21
3	Pathanamthitta	17.67	0	17.67
4	Alappuzha	24.13	0	24.13
5	Kottayam	6.99	76.85	83.84
6	Idukki	31.78	6.48	38.27
7	Eranakulam	25.44	25.11	50.55
8	Thrissur	32.80	18.80	51.60
9	Palakkad	19.55	17.12	36.67
10	Malappuram	15.40	2.96	18.36
11	Kozhikkode	46.06	0	46.06
12	Wayanad	34.85	16.50	51.34
13	Kannur	58.34	7.07	65.41
14	Kasaragod	10.40	24.49	34.81
	State	22.55	34.19	56.74

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	38.62	0.26	38.88
2	Kollam	54.44	2.22	56.66
3	Pathanamthitta	28.08	1.24	29.31
4	Alappuzha	25.70	0	25.70
5	Kottayam	34.36	15.39	49.76
6	Idukki	11.47	6.84	18.31
7	Eranakulam	19.33	32.10	51.43
8	Thrissur	28.60	19.04	47.64
9	Palakkad	5.71	6.74	12.45
10	Malappuram	26.43	4.45	30.89
11	Kozhikkode	35.51	0	33.51
12	Wayanad	32.03	28.41	60.44
13	Kannur	35.00	2.21	37.20
14	Kasaragod	11.71	13.88	25.59
	State	30.71	10.46	41.17

A 3.18 Percentage of Hired human labour hours to total human labour hours under Cardamom				
Sl No	District	Male	Female	Total
1	Idukki	24.00	21.56	45.56
2	Palakkad	13.22	86.78	100
3	Wayanad	26.61	60.60	87.22
	State	23.20	53.87	77.08

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	65335	23703	89039
2	Kollam	75609	31556	107165
3	Pathanamthitta	70752	12633	83385
4	Alappuzha	87103	581	87684
5	Kottayam	92394	0	92394
6	Idukki	65822	4195	70017
7	Eranakulam	47135	7782	54917
8	Thrissur	62420	1693	64113
9	Palakkad	94755	705	75460
10	Malappuram	52027	8055	60081
11	Kozhikkode	41266	20406	61673
12	Wayanad	0	0	0
13	Kannur	77085	24045	101130
14	Kasaragod	75474	32302	107776
	State	71172	7503	78675

A4.2 District wise Value of product and by-product per hectare (in Rs.) of Winter Paddy				
SI No	District	Product	By Product	Total
1	Thiruvananthapuram	54223	24661	78884
2	Kollam	74887	33974	108860
3	Pathanamthitta	97067	7026	104093
4	Alappuzha	86578	905	87483
5	Kottayam	88066	4516	92582
6	Idukki	62954	30033	92987
7	Eranakulam	57658	14358	72016
8	Thrissur	97593	8301	105894
9	Palakkad	103907	5568	109475
10	Malappuram	67933	16569	84502
11	Kozhikkode	35510	23293	58803
12	Wayanad	47940	20127	68067
13	Kannur	81260	61399	142659
14	Kasaragod	78360	34748	113110
	State	79564	13650	93214

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	71821	28624	100445
2	Kollam	74261	30014	104275
3	Pathanamthitta	97024	6766	103790
4	Alappuzha	92072	1209	93281
5	Kottayam	100507	905	101412
6	Idukki	84257	42545	126801
7	Eranakulam	69302	9921	79223
8	Thrissur	97629	3731	101660
9	Palakkad	106685	3905	110590
10	Malappuram	86135	10433	96568
11	Kozhikkode	30857	13595	44452
12	Wayanad	53711	23667	77384
13	Kannur	54559	38050	92609
14	Kasaragod	70571	31026	101597
	State	88832	8037	96869

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	122277	7001	129278
2	Kollam	158759	1795	160374
3	Pathanamthitta	73604	931	74534
4	Alappuzha	85025	329	85354
5	Kottayam	187111	31172	190283
6	Idukki	99900	0	99900
7	Eranakulam	115321	1459	116781
8	Thrissur	83432	11764	95195
9	Palakkad	102140	2850	104991
10	Malappuram	56754	3294	60049
11	Kozhikkode	64589	7672	72261
12	Wayanad	62292	1506	63798
13	Kannur	83396	4401	87796
14	Kasaragod	112605	4989	117595
	State	98957	3834	102791

A4.5 District wise Value of product and by-product per hectare (in Rs.) of Arecanut, Tapioca and Banana.				
SI No	District	Arecanut	Tapioca	Banana
1	Thiruvananthapuram	116048	353734	568692
2	Kollam	142944	814007	636525
3	Pathanamthitta	99620	290418	362319
4	Alappuzha	142026	304832	447696
5	Kottayam	151598	266080	501536
6	Idukki	127238	143913	365410
7	Eranakulam	153394	198623	311936
8	Thrissur	437201	198008	541596
9	Palakkad	135680	105410	194598
10	Malappuram	214278	175372	429457
11	Kozhikkode	126332	141443	399065
12	Wayanad	177045	203517	613876
13	Kannur	360622	332632	441668
14	Kasaragod	338437	180598	565826
	State	209399	216662	423895

A4.6 District wise Value of product and by-product per hectare (in Rs.) of Pepper, Ginger and Turmeric				
Sl No	District	Pepper	Ginger	Turmeric
1	Thiruvananthapuram	234552	353796	305011
2	Kollam	781350	418997	297528
3	Pathanamthitta	315711	212388	165026
4	Alappuzha	309089	406604	289367
5	Kottayam	350769	403059	326121
6	Idukki	264054	241993	221470
7	Eranakulam	395990	162789	199929
8	Thrissur	366811	318293	154809
9	Palakkad	109381	246583	72220
10	Malappuram	165290	189809	175848
11	Kozhikkode	213031	258417	173454
12	Wayanad	902829	411460	147731
13	Kannur	209794	334360	366479
14	Kasaragod	323675	327255	572526
	State	322229	287423	149826

A4.7 District wise Value of product and by-product per hectare of Pineapple		
Sl No	District	Pineapple
1	Thiruvananthapuram	549145
2	Kollam	266452
3	Pathanamthitta	142087
4	Alappuzha	253383
5	Kottayam	247802
6	Idukki	235060
7	Eranakulam	617669
8	Thrissur	484416
9	Palakkad	565925
10	Malappuram	200609
11	Kozhikkode	220814
12	Wayanad	301700
13	Kannur	356176
14	Kasaragod	775247
	State	449700

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	393714	390167	474842
2	Kollam	323846	368775	380752
3	Pathanamthitta	274943	328610	290506
4	Alappuzha	471257	530347	483135
5	Kottayam	357705	328739	286578
6	Idukki	194774	165435	0
7	Eranakulam	254213	164487	170044
8	Thrissur	227932	268010	249825
9	Palakkad	57345	213885	22636
10	Malappuram	142159	144570	172740
11	Kozhikkode	202191	198154	219444
12	Wayanad	0	408406	324871
13	Kannur	307187	460948	215265
14	Kasaragod	239456	347023	287923
	State	180665	279605	281628

A4.9 District wise Value of product and by-product per hectare (in Rs.) of Cowpea (Autumn, Winter and Summer)				
Sl No	District	Cowpea(Autumn)	Cowpea(Winter)	Cowpea(Summer)
1	Thiruvananthapuram	336664	337318	370532
2	Kollam	215417	407922	378868
3	Pathanamthitta	286307	341594	317017
4	Alappuzha	380856	524996	482527
5	Kottayam	349183	340510	377230
6	Idukki	196551	120302	242820
7	Eranakulam	259852	225616	315765
8	Thrissur	206634	252987	251114
9	Palakkad	59901	222827	31737
10	Malappuram	145775	135659	157174
11	Kozhikkode	92289	121284	130874
12	Wayanad	0	338519	276288
13	Kannur	339607	661688	214408
14	Kasaragod	280066	308564	330402
	State	173542	281077	276689

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

Sl No	District	Cardamom
1	Idukki	439618
2	Palakkad	164688
3	Wayanad	228904
	State	340647