



GOVERNMENT OF KERALA

REPORT ON COST OF CULTIVATION OF IMPORTANT CROPS IN KERALA 2017-18

Department of Economics & Statistics, Kerala
2020



Government of Kerala

**Report On
Cost of Cultivation of
Important Crops in Kerala
2017-18**

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PREFACE

The growth-trend in the agricultural sector is not consistent in Kerala. The contribution of agriculture to State Income has been on 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 2017-18. The crops 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, Researchers and other data users.

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

Thiruvananthapuram.

P.V.Babu
Director

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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 38th round of survey conducted during the agricultural year 2017-18

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) 2017-18.

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 numbers of investigator zones were selected using circular systematic sampling method. Name of crops and number of zones selected from each taluk are given below.

Sl. No	Name of crops	Number of Zones
1	Coconut, Arecanut	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 also adopted for the selection of cultivators for winter and summer seasons.

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 and Tapioca etc.

If sufficient numbers of suitable plots of other crops are not available within 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 crop 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 survey is carried out by the Statistical Investigator /enumerators in 61 Taluks. One Investigator /enumerators is posted in each Taluk for this purpose. The investigators visit 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 crops. 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 is supervised by Taluk Statistical Officer/Statistical Inspector at Taluk level and Deputy Director/ District officer /other district level supervisory officer at District level.

1.7 Processing and Analysis of Data

The data entry and tabulation sheet preparation works are done at Taluk level in DESCAS software. The compilation tabulation works are done at the district office. Consolidation of data, the report write-up and analysis works are done at the Directorate.

1.8 Method of Estimation

(a) Concepts of Cost.

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

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

- i. Hired human labour
- ii. Animal labour
- iii. Machine labour
- iv. Seed/ seedlings
- v. Farm yard Manure and Chemical fertilizers
- vi. Plant protection
- vii. Land tax and Irrigation Cess
- viii. Repair and maintenance charges of implements, machinery and buildings
- ix. Interest on working capital
- x. Other expenses

Cost 'B1': Cost 'A' + Interest on fixed assets (excluding land)

Cost 'B': Cost 'B1' + interest on 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 report of the Registration Department has been taken for calculating Cost B of each crop.

(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 values of input used out of home stock are imputed. 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 into 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 costs 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 2017-18

For this study details of holding selected and area coverage are given below. The data collected from 746 holdings according to the size class by covering 567.67 hectares of land. It is observed that the average area per holding is 0.76 hectares in all classes while area per holding in large size class, ie more than two hectares is 3.47 hectares per holdings. But in small size class, ie, less than 0.40 hectare which comprises 384 holdings, the average area per holding is only 0.21 hectare.

Table 1: Area and number of holdings under Autumn Paddy

Holding size class	No of selected holdings	Area under the crop in the sample (ha)	Percentage Area	Average Area per holding (ha)
Small	384	80.11	14.11	0.21
Medium	284	216.66	38.17	0.76
Large	78	270.90	47.72	3.47
Total	746	567.67	100	0.76

Cost of cultivation

Under the Cost A ie; paid out cost actually incurred by the cultivators 45.72 percent of cost incurred against hired human labour is the highest. Machine labour cost shares 12.70% and farmyard manure and chemical fertilizers accounts to 11.12% respectively. In holdings size class less than 0.40 hectare, cost under hired human labour is more, ie, 52.69% against total cost under Cost A while in size class above two hectares, the cost percentage under hired human labour is coming down to 48.45%. Similarly per hectare cost difference between large and small size class is Rs 15374/-.

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

Sl No		Holding size Class			
		Small	Medium	Large	All Size
1	Hired human labour	36496	27777	21777	26144
2	Animal labour	43	17	9	17
3	Machine labour	7083	7073	7467	7262
4	Seed / seedlings	3643	2817	2747	2900
5	Farmyard manure and chemical fertilizers	8187	6272	5986	6406
6	Plant protection	542	949	1206	1014
7	Land tax and irrigation cess	146	148	188	167
8	Repair and maintenance charges of implements, machinery and building	622	174	120	212
9	Interest on working capital	5599	4491	3919	4374
10	Other expenses	6899	7609	10467	8873
11	Total cost 'A' (1-10)	69260	57327	53886	57369
12	Interest on fixed capital	1552	829	878	954
13	Cost 'B1' (11+12)	70812	58156	54764	58323
14	Interest on land value	179658	185616	128072	157315
15	Cost 'B' (13+14)	250470	243772	182836	215638
16	Imputed value of household labour	14402	8698	3975	7249
17	Cost 'C' (15+16)	264872	252470	186811	222887

Percentage Distribution of “COST A” per hectare of Autumn Paddy during 2017-18

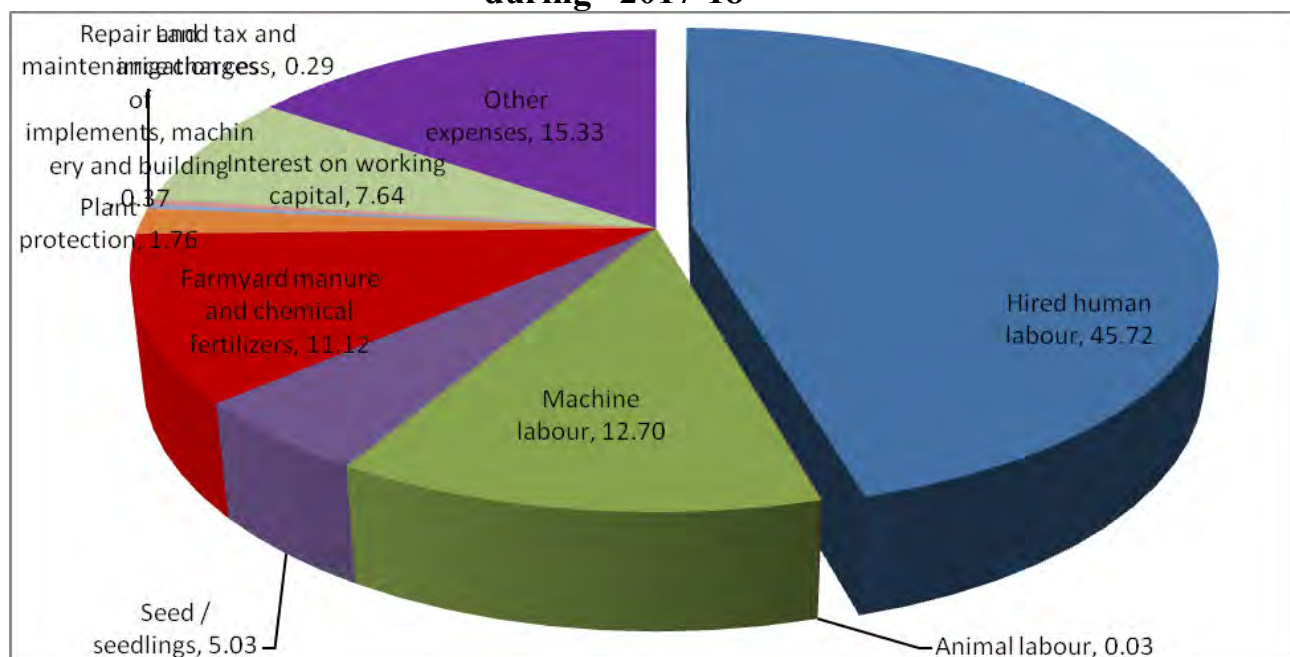


Table 3: Percentage of hired human labour hours to total human labour hours

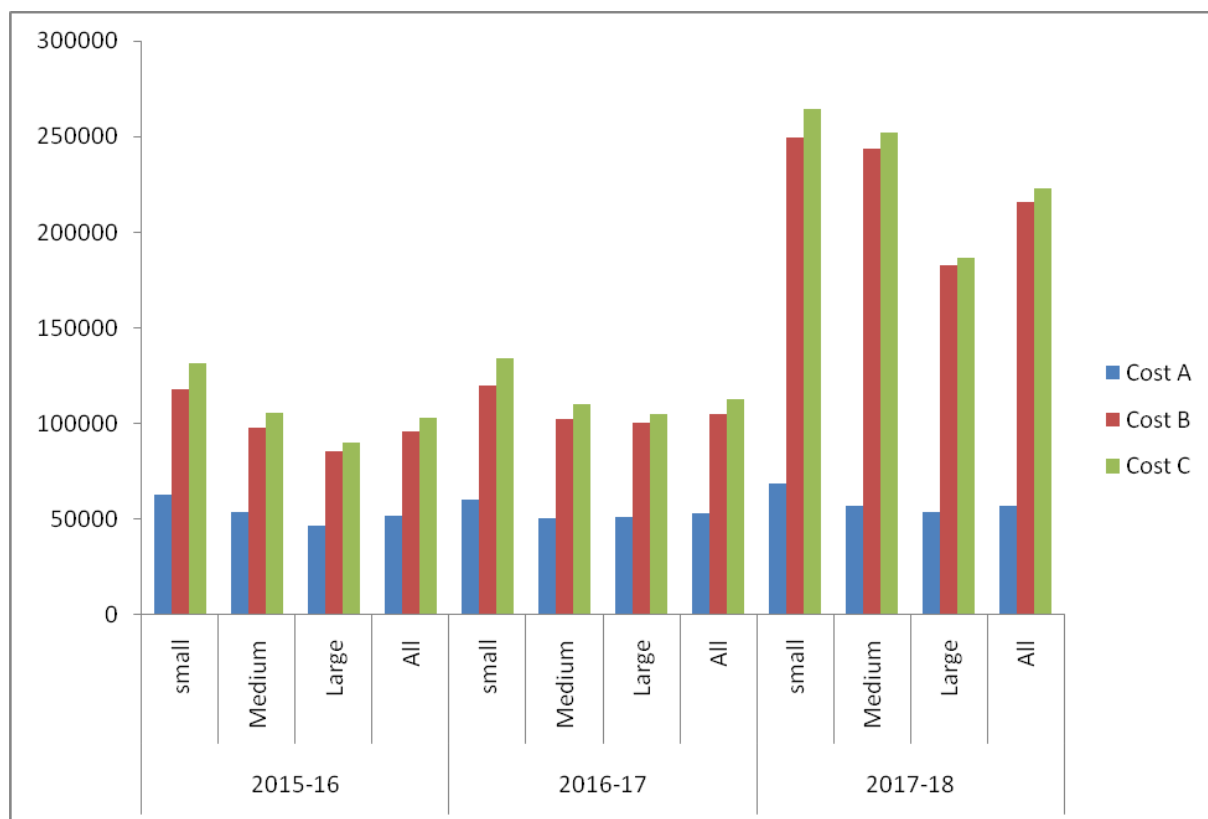
Sex	Holding size class			
	Small	Medium	Large	All Sizes
Male	24.65	26.53	30.32	27.53
Female	37.48	39.93	44.48	50.64
Total	62.13	66.46	74.80	78.17

In Autumn Paddy cultivation 50.64% of total labour hours shares to female participation

Table 4: Cost of cultivation of Autumn Paddy per hectare (in Rs.) during 2015-16, 2016-17 and 2017-18

Concept of cost	Year	Holding size class			
		Small	Medium	Large	All Sizes
Cost ‘A’	2015-2016	62547	53693	46428	51823
	2016-2017	59978	50844	51421	52818
	2017-2018	69260	57327	53886	57369
Cost ‘B’	2015-2016	118218	97999	85647	95647
	2016-2017	119879	102645	100518	105157
	2017-2018	250470	243772	182836	215638
Cost ‘C’	2015-2016	131527	105748	90008	102740
	2016-2017	134435	109878	105271	112862
	2017-2018	264872	252470	186811	222887

Cost of cultivation of Autumn Paddy per hectare (in Rs.) - during 2015-2016, 2016-17 and 2017-18



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 2017-18 is increased by Rs 4551 as compared to cost in 2016-17.

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 2017-18 for producing one quintal of paddy Rs.1866/- 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 2015-16, 2016-17 and 2017-18

Concept of cost	Year	Holding size class			
		Small	Medium	Large	All Sizes
Cost 'A'	2015-2016	2019	1698	1738	1763
	2016-2017	1795	1438	1356	1470
	2017-2018	2244	1866	1762	1866
Cost 'B'	2015-2016	3817	3098	3204	3254
	2016-2017	3580	2903	2651	2926
	2017-2018	7898	7544	5498	6586
Cost 'C'	2015-2016	4247	3343	3367	3495
	2016-2017	4016	3108	2776	3140
	2017-2018	8347	7808	5613	6802

Value of Out put

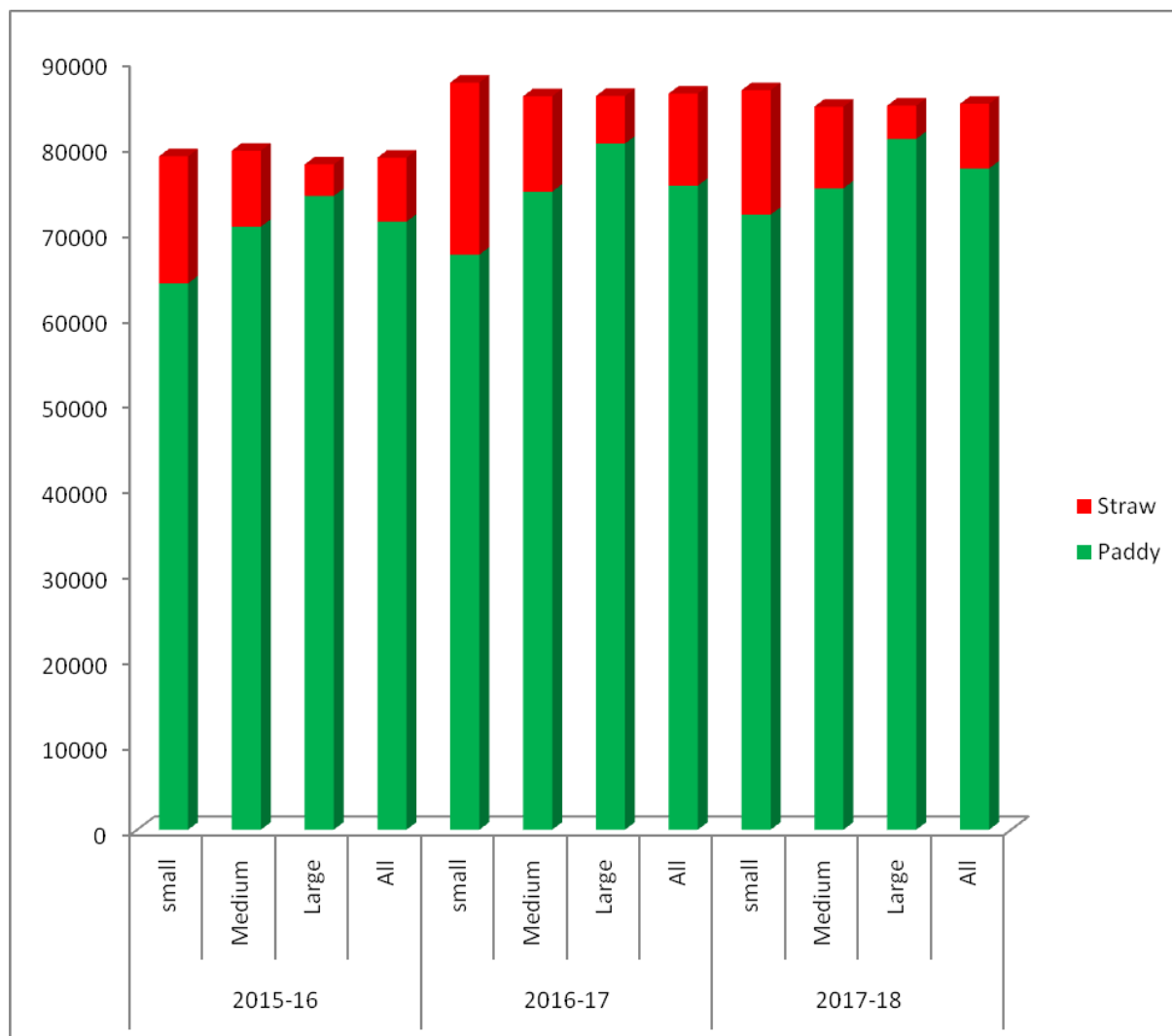
Details of product and by-product per hectare in Autumn Paddy during the last three years are given below.

Table 6: Value of product and by-product per hectare (in Rs.) of Autumn Paddy during 2015-16, 2016-17 and 2017-18.

Year	Product/ By product	Holding size class			
		Small	Medium	Large	All size
2015-2016	Paddy	63951	70589	74180	71172
	Straw	14873	8900	3689	7503
	Total	78824	79489	77870	78675
2016-2017	Paddy	67315	74690	80311	75392
	Straw	20139	11162	5573	10780
	Total	87454	85852	85883	86172
2017-2018	Paddy	74676	75591	80860	77976
	Straw	14800	9607	3896	7614
	Total	89476	85198	84756	85591

Per hectare value of product and by product in Autumn season shows an decreasing trend during 2017-18 when compared to last year. The value of product is increased from Rs 75392 to Rs 77976 whereas the value of straw is decreased.

**VALUE PRODUCT AND BY PRODUCT PER HECTARE OF AUTUMN PADDY
DURING 2015-2016, 2016-2017 & 2017-2018**



2.1.2 Paddy-Winter (Mundakan) during 2017-18

During 2017-18, cost of cultivation study on winter paddy was conducted in 867 holdings according to the size class by covering 822.94 hectare of land. The average area per holding during the season under study is 0.95 hectare. In winter season area per holding in large size class is 3.86 hectare and in small size class it is only 0.22 hectare, area per holding is increased slightly 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	394	87.98	10.69	0.22
Medium	355	279.39	33.95	0.79
Large	118	455.57	55.36	3.86
Total	867	822.94	100	0.95

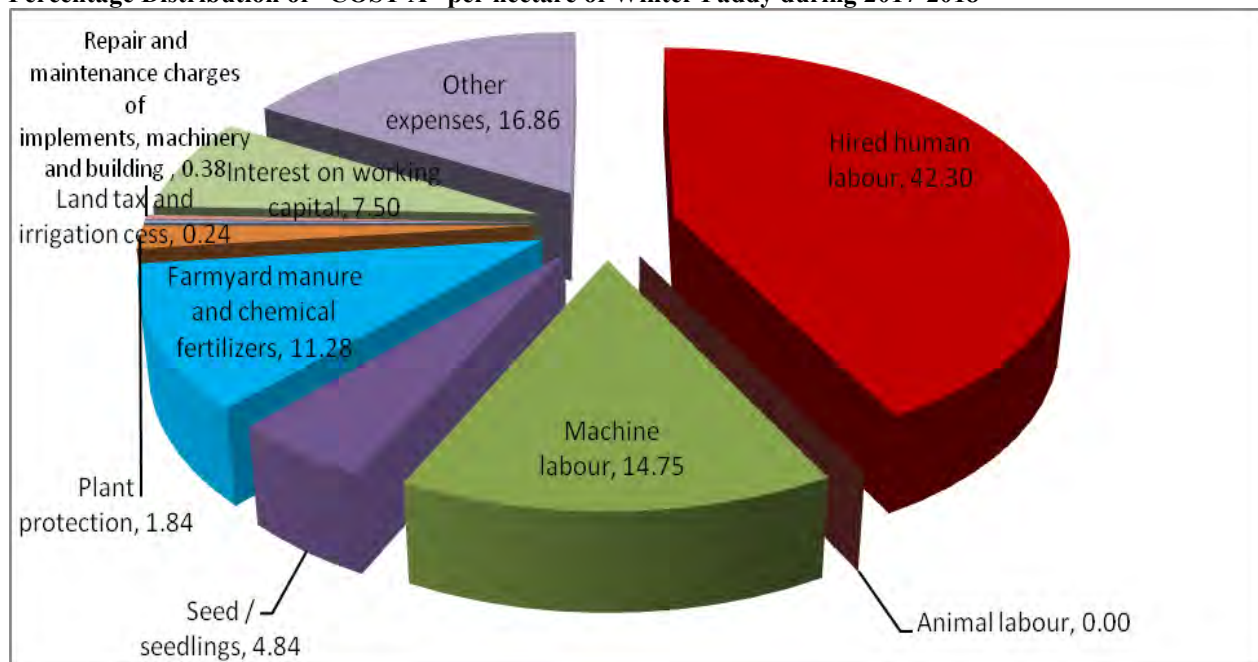
Cost of Cultivation

In Cost A, the paid out cost actually incurred by the cultivator, the major share of the cost component is hired human labour. It constitutes 42.30% per cent. Another two major contributing factor in cost are machine labour and other expences which constitutes 14.75% and 16.86 % respectively. Farmyard manure and chemical fertilizers accounts are 11.28 %. 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.61663/-. Considerable variation in hired human labour component is reported in winter season during 2017-18 when small and large size classes are compared. Cost difference in human hired labour between small and large size class is Rs 15223/.

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	36064	31597	20841	26082
2	Animal labour		4		1
3	Machine labour	7345	7880	10204	9096
4	Seed / seedlings	2767	2859	3116	2987
5	Farmyard manure and chemical fertilizers	8723	7863	6076	6955
6	Plant protection	807	1148	1196	1137
7	Land tax and irrigation Cess	156	149	148	149
8	Repair and maintenance charges of implements, machinery and building	672	321	94	234
9	Interest on working capital	5571	5135	4143	4626
10	Other expenses	6826	8480	12290	10396
11	Total Cost 'A' (1-10)	68931	65436	58108	61663
12	Interest on fixed capital	2804	1116	941	1201
13	Cost 'B1' (11+12)	71735	66552	59049	62864
14	Interest on land value	168187	195123	148151	165995
15	Cost 'B' (13+14)	239922	261675	207200	228859
16	Imputed value of household labour	18057	9029	4705	7590
17	Cost 'C' (15+16)	257979	270704	211905	236449

Percentage Distribution of “COST A” per hectare of Winter Paddy during 2017-2018



Sex wise work participation in hired human labours for winter paddy cultivation reveals that 42.94% of work shared by Female whereas 34.98% 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

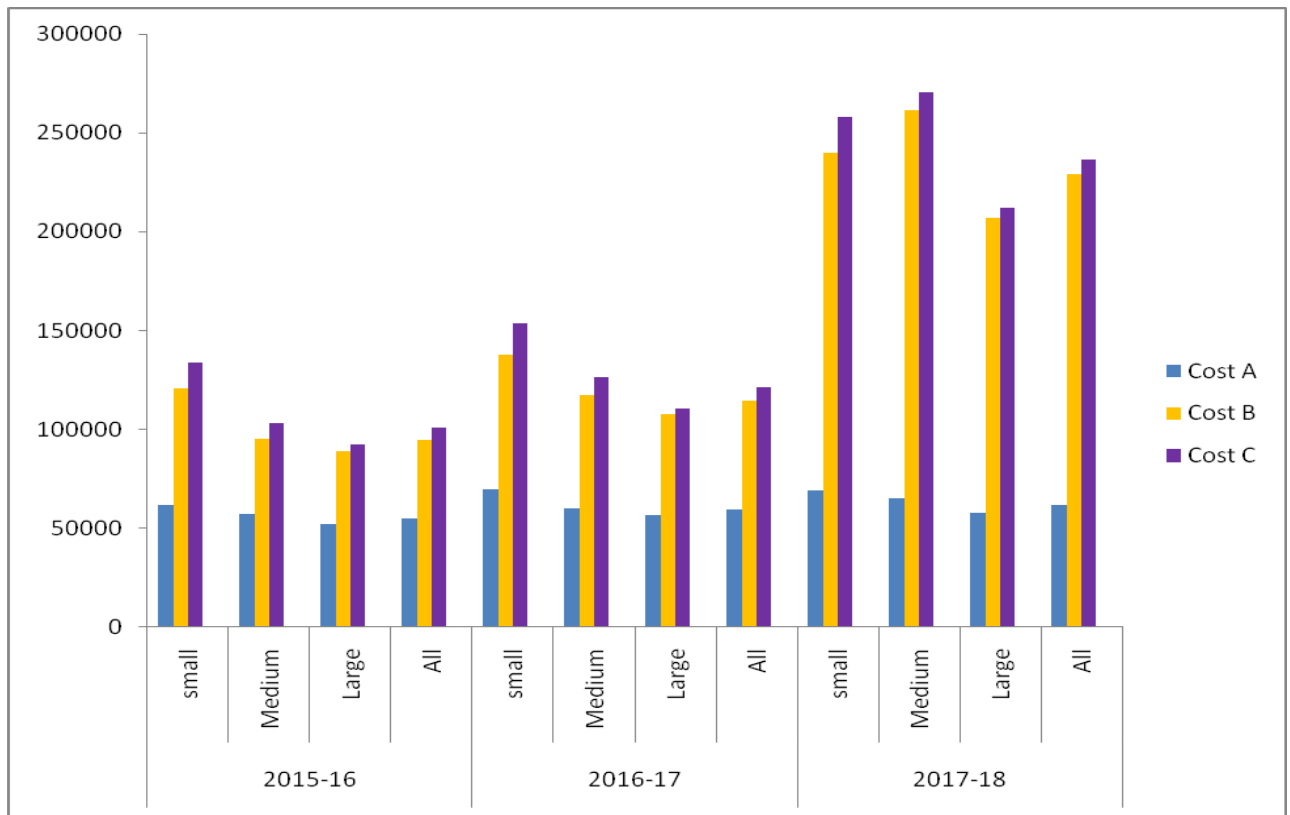
Sex	Holding size class			
	Small	Medium	Large	All Sizes
Male	23.89	30.88	43.96	34.98
Female	36.61	40.65	40.37	42.94
Total	60.50	71.53	84.33	77.92

Table 10: Cost of cultivation of Winter Paddy per hectare (in Rs) during, 2015-2016, 2016-2017 and 2017-2018

Concept of cost	Year	Holding Size class			
		Small	Medium	Large	All size
Cost 'A'	2015-2016	61873	57258	52191	55044
	2016-2017	69983	60341	56716	59600
	2017-2018	68931	65436	58108	61663
Cost 'B'	2015-2016	120619	95513	89087	94977
	2016-2017	137601	117285	107672	114661
	2017-2018	239922	261675	207200	228859
Cost 'C'	2015-2016	133934	103231	92408	100962
	2016-2017	153877	126672	110447	121354
	2017-2018	257979	270704	211905	236449

The result of the survey shows an increase of 3.46 percentage of cost during 2017-18 from the year 2016-17. Also the bottom size class (small) the cost decreased by 1.50 percentage during the same period.

**COST OF CULTIVATION PER HECTARE OF WINTER PADDY DURING
2015-16, 2016-17 & 2017-18**



Cost of production of Winter Paddy

Table 11: Per Quintal Cost (in Rs.) of production of Winter Paddy during 2015-16, 2016-17 & 2017-18

Concept of cost	Year	Holding size class			
		Small	Medium	Large	All Sizes
Cost 'A'	2015-2016	1996	1917	1497	1680
	2016-2017	2118	1874	1463	1664
	2017-2018	1214	1250	1527	1382
Cost 'B'	2015-2016	3890	3198	2555	2901
	2016-2017	4154	3643	2779	3201
	2017-2018	4100	4779	4898	4751
Cost 'C'	2015-2016	4320	3456	2650	3084
	2016-2017	4647	3935	2851	3388
	2017-2018	4404	4941	5004	4904

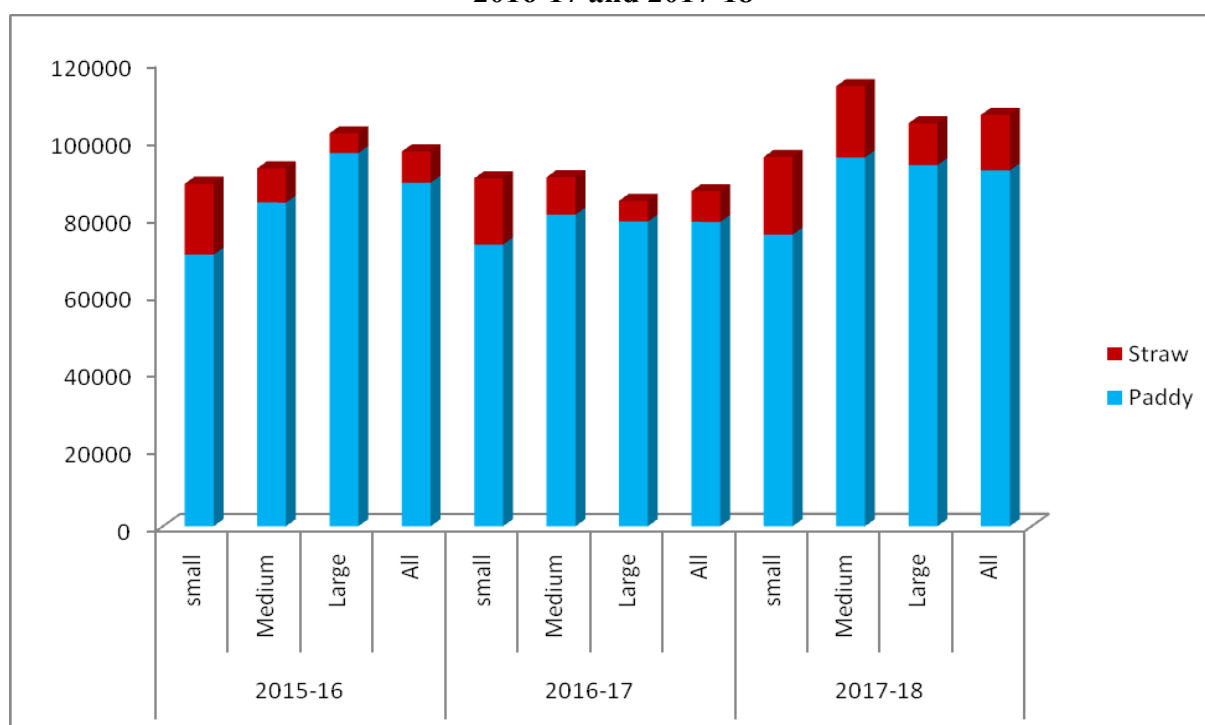
Value of Output

Table 12: Value of Product and Byproduct per hectare (in Rs) of Winter Paddy during 2015-16, 2016-17 and 2017-18

Year	Product/ By product	Holding size class			
		Small	Medium	Large	All size
2015-16	Paddy	71691	74171	84616	79564
	Straw	22379	17457	9397	13650
	Total	94070	91627	94012	93214
2016-17	Paddy	69788	69610	86155	78537
	Straw	20006	13968	8039	11535
	Total	89794	83578	94194	90072
2017-18	Paddy	75404	95353	93349	91975
	Straw	20065	18401	10811	14356
	Total	95469	113754	104160	106331

Compared to autumn 2017-18 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 18.05 percentage in 2017-18 winter season against the value of 2016-17 in the same season.

Value of Product and By product per hectare (in Rs) of Winter Paddy during 2015-16, 2016-17 and 2017-18



2.1.3 Paddy - Summer (Puncha) during 2017-18

For the cost of cultivation study on summer paddy during 2017-18 the total number of holdings selected was 663. Number of holdings selected in large holding size is 89. 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	312	68.87	8.86	0.22
Medium	262	240.03	30.86	0.92
Large	89	468.82	60.28	5.27
All Size	663	777.72	100	1.17

The above table reveals that the total area under cultivation in the selected sample holdings covers to 777.72 hectares and the average size of a holding is 1.17 hectare. In the large size class the average area per holding is 5.27 hectare where as in small size class area per holding is 0.22 hectare only.

Cost of Cultivation

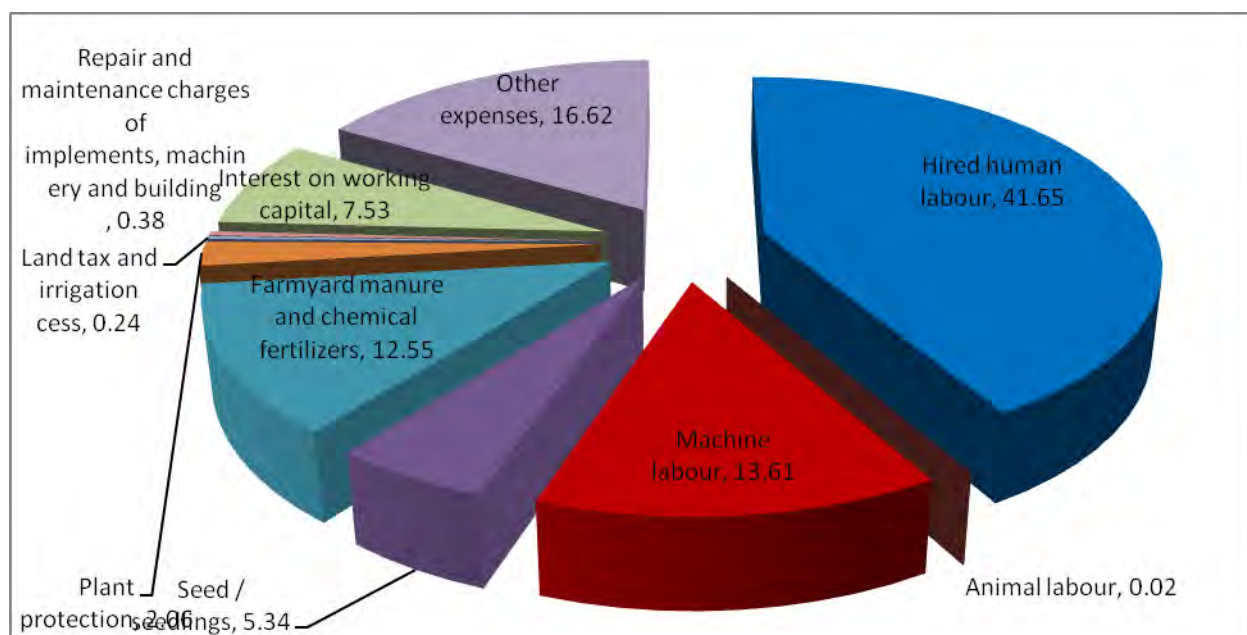
Cost of cultivation of summer paddy per hectare is estimated as Rs.57200/- when cost 'A' is considered. Component wise holding size class details are presented below:

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	38370	27963	19425	23738
2	Animal labour		15	15	14
3	Machine labour	7669	7912	7696	7760
4	Seed / seedlings	2987	2894	3185	3077
5	Farmyard manure and chemical fertilizers	8531	7304	6998	7228
6	Plant protection	1133	1087	1234	1180
7	Land tax and irrigation Cess	189	169	115	138
8	Repair and maintenance charges of implements, machinery and building	1083	257	67	216
9	Interest on working capital	5869	4717	3855	4300
10	Other expenses	7409	9026	10132	9549
11	Total Cost 'A' (1-10)	73240	61344	52722	57200
12	Interest on fixed capital	3665	1584	476	1100
13	Cost 'B1' (11+12)	76905	62928	53198	58300
14	Interest on land value	176787	167287	137856	150387
15	Cost 'B' (13+14)	253692	230215	191054	208687
16	Imputed value of household labour	18876	8143	2598	5751
17	Cost 'C' (15+16)	272568	238358	193652	214438

Out of the total cost incurred for crop husbandry more than 41.65 percent cost goes to human labour component. Similarly compare to winter seasons a slight decrease in total cost A during the summer season is reported.

Percentage Distribution of “COST A” per hectare of Summer Paddy during 2017-18



In summer paddy cultivation hired female labour participation accounted as 44.20 % and that of male labour participation is 35.85% to the total labour hours. Details are given below:

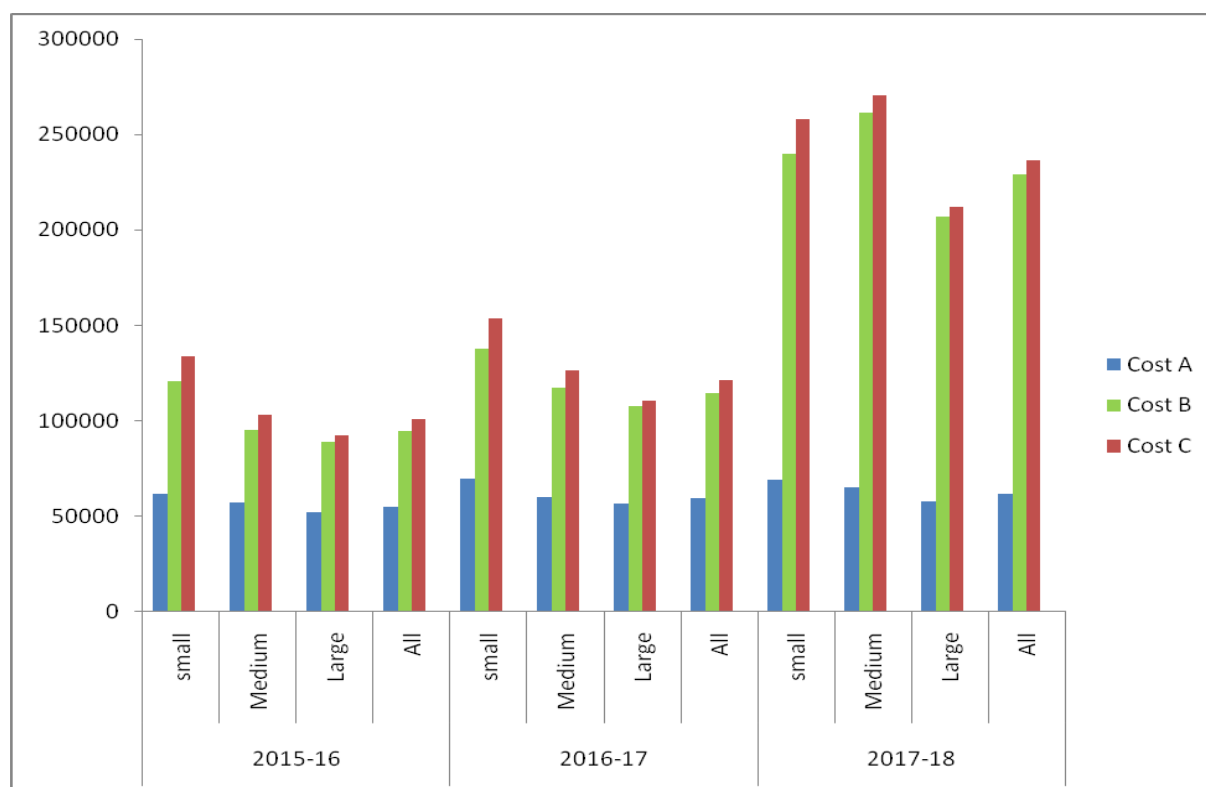
Table 15: Percentage of hired human labour hours to total human labour hours

Sex	Holding size class			
	Small	Medium	Large	All Sizes
Male	24.86	33.19	42.83	35.85
Female	35.59	40.23	43.87	44.20
Total	60.45	73.42	86.70	80.05

Table 16: Cost of Cultivation of Summer Paddy per hectare (in Rs) during,2015-16 ,2016-2017 and2017-2018

Concept of cost	Year	Holding Size class			
		Small	Medium	Large	All size
Cost 'A'	2015-2016	60331	57484	58781	58555
	2016-2017	65432	59477	49251	54109
	2017-2018	73240	61344	52722	57200
Cost 'B'	2015-2016	104591	103450	102071	102857
	2016-2017	114236	111215	89434	98745
	2017-2018	253692	230215	191054	208687
Cost 'C'	2015-2016	120740	111877	104630	109126
	2016-2017	131088	119163	92090	104539
	2017-2018	272568	238358	193652	214438

COST OF CULTIVATION PER HECTARE OF SUMMER PADDY DURING 2015-16, 2016-17 & 2017-18



Value of Output

Table 17: Per Quintal Cost (in Rs.) of production of Summer Paddy during, 2015-16,2016-17 and 2017-2018

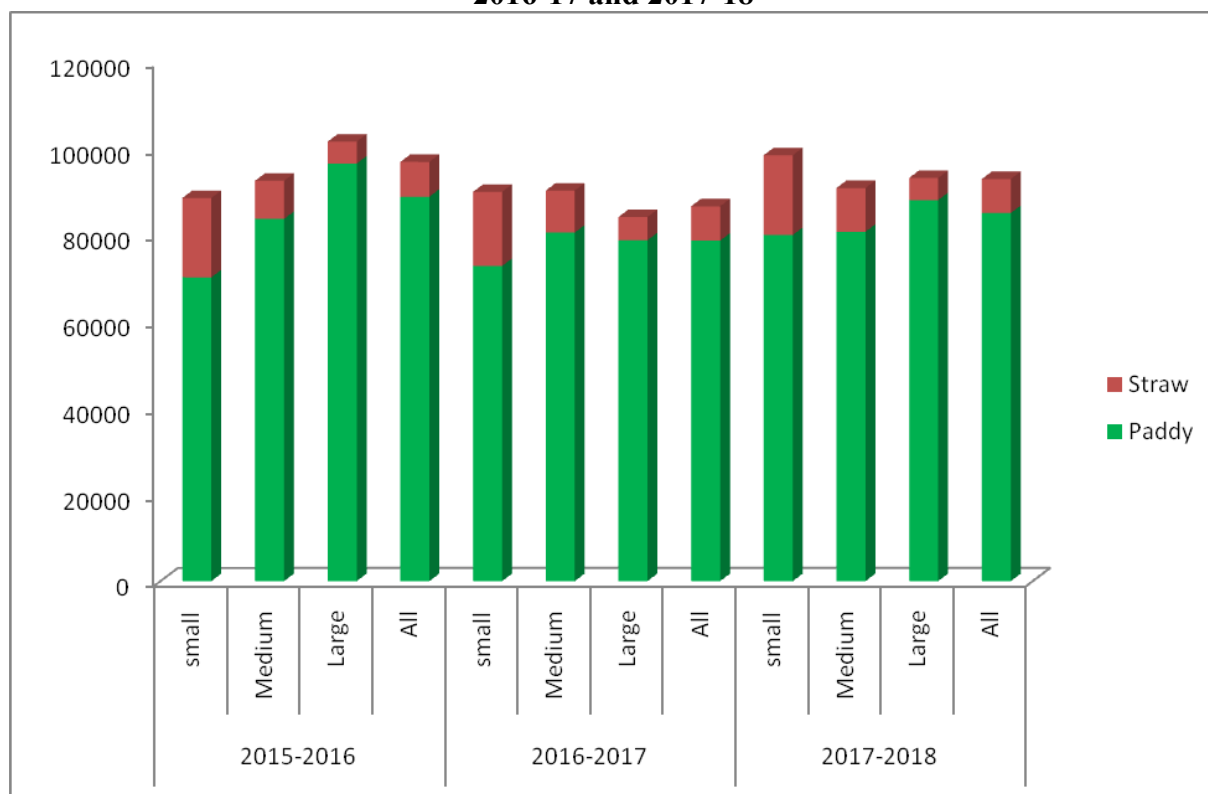
Concept of cost	Year	Holding size class			
		Small	Medium	Large	All Sizes
Cost 'A'	2015-2016	1748	1414	1291	1379
	2016-2017	1899	1591	1337	1474
	2017-2018	988	1681	1091	1216
Cost 'B'	2015-2016	3027	2543	2242	2422
	2016-2017	3316	2976	2429	2690
	2017-2018	3319	6006	3656	4162
Cost 'C'	2015-2016	3495	2750	2298	2570
	2016-2017	3805	3189	2501	2848
	2017-2018	3563	6215	3704	4274

Above table reveals that for producing one quintal of paddy in summer season an amount of Rs 1216/- is required when cost 'A' is considered. Per hectare value of paddy produced during the season is calculated as **Rs.87596/-** and the value of by-product viz. straw is estimated as **Rs.8079/-**.

Table 18: Value of Product and by product per hectare (in Rs) of Summer Paddy during 2015-16, 2016-17 and 2017-18

Year	Product/ By product	Holding size class			
		Small	Medium	Large	All size
2015-2016	Paddy	70195	83683	96492	88832
	Straw	18337	8817	5071	8037
	Total	88531	92501	101563	96869
2016-2017	Paddy	72826	80544	78769	78674
	Straw	17119	9693	5350	7938
	Total	89945	90237	84120	86612
2017-2018	Paddy	81508	85151	89743	87596
	Straw	18582	10537	5278	8079
	Total	100090	95688	95021	95675

Value of Product and Byproduct per hectare (in Rs) of Summer Paddy during 2015-16, 2016-17 and 2017-18



2.2 Coconut during 2017-18

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 in the cultivation. To conduct the study, 1220 sample holdings selected in the state from the different holdings size classes, the average area per holding is 0.42 hectare. Details of the study conducted during 2017-18 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	497	68.08	13.34	0.14
Medium	546	198.01	38.78	0.36
Large	177	244.48	47.88	1.38
Total	1220	510.57	100	0.42

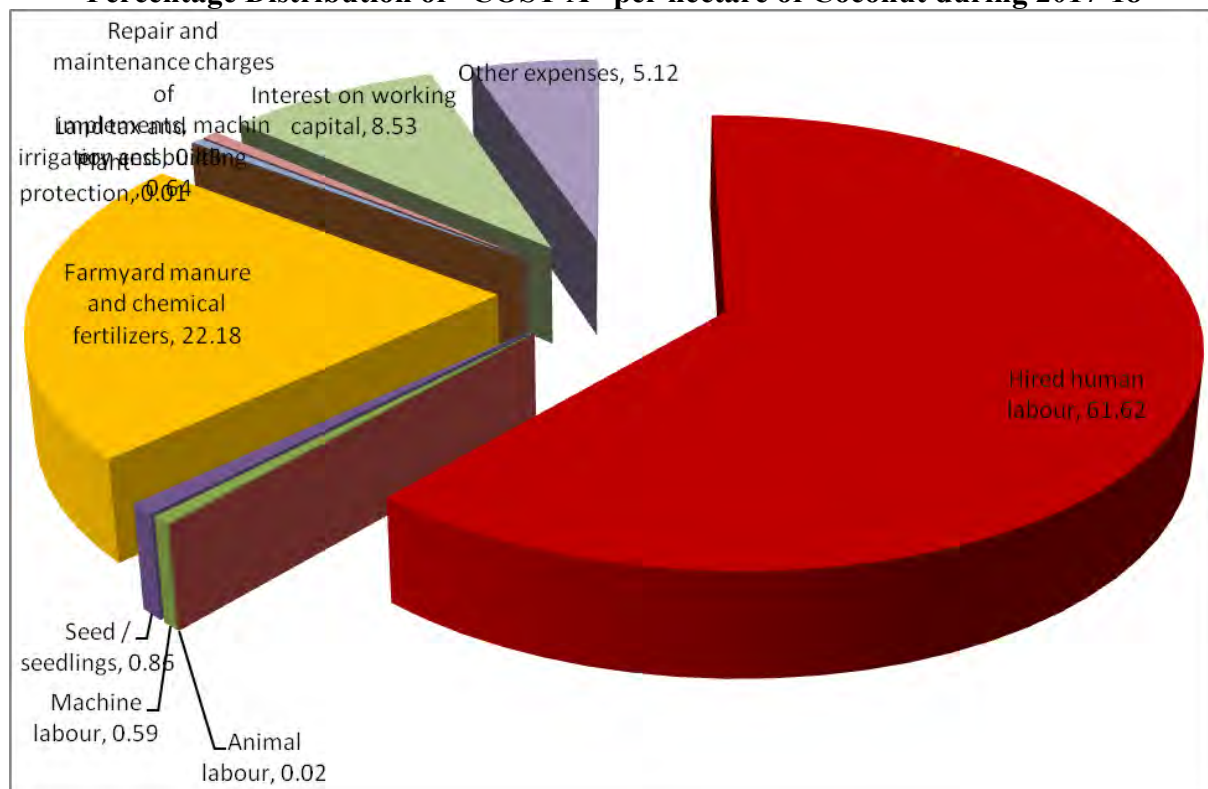
Cost of Cultivation

Cost per hectare for cultivating coconut during 2017-18 was Rs 68434/- excluding interest on fixed capital, land value and value of household labour. Out of this 61.62% of total cost is for the component of hired human labour and 22.18 % 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	41835	41598	42723	42168
2	Animal labour		44		17
3	Machine labour	42	262	613	401
4	Seed / seedlings	712	510	616	588
5	Farmyard manure and chemical fertilizers	15492	15903	14510	15181
6	Plant protection	67			9
7	Land tax and irrigation Cess	241	243	351	295
8	Repair and maintenance charges of implements, machinery and building	1229	395	248	436
9	Interest on working capital	5815	5832	5846	5836
10	Other expenses	3465	3957	3147	3503
11	Total Cost 'A' (1-10)	68898	68744	68054	68434
12	Interest on fixed capital	3526	2094	2437	2449
13	Cost 'B1' (11+12)	72424	70838	70491	70883
14	Interest on land value	543926	609670	476810	537285
15	Cost 'B' (13+14)	616350	680508	547301	608168
16	Imputed value of household labour	17286	11268	6134	9612
17	Cost 'C' (15+16)	633636	691776	553435	617780

Percentage Distribution of “COST A” per hectare of Coconut during 2017-18



The following table reveals that the percentage distribution of hired human labour hours to the total human labour hours. The percentage shares of female participation in total human labour hours are 9.82 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	59.21	66.46	71.27	67.44
Female	12.99	16.54	32.67	9.82
Total	72.20	83.00	103.94	77.26

Table 22: Cost of cultivation of Coconut per hectare (in Rs.) during 2015-16, 2016-17 & 2017-18

Concept of cost	Year	Holding Size class			
		Small	Medium	Large	All size
Cost 'A'	2015-2016	60125	62331	60953	61429
	2016-2017	75192	67717	64392	67062
	2017-2018	68898	68744	68054	68434
Cost 'B'	2015-2016	387147	492922	287425	386208
	2016-2017	433827	431828	333139	386171
	2017-2018	616350	680508	547301	608168
Cost 'C'	2015-2016	404019	503268	293068	395225
	2016-2017	451339	443588	339292	396009
	2017-2018	633636	691776	553435	617780

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	149675	143153	147276	145997
By-Product	4759	4127	4284	4286
Total	154434	147280	151560	150283

The study reveals that the value of output is Rs 150283/- per hectare whereas the cost of cultivation per hectare is Rs 68434/-.

2.3 Arecanut during 2017-18

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 1215 sample holding were selected under three holdings size classes namely small, medium and large. The average area per holding was 0.14 hectare and the total area under the crop in the sample was 173.27 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	1009	66.59	38.43	0.07
Medium	161	52.94	30.55	0.33
Large	45	53.74	31.02	1.19
All size	1215	173.27	100	0.14

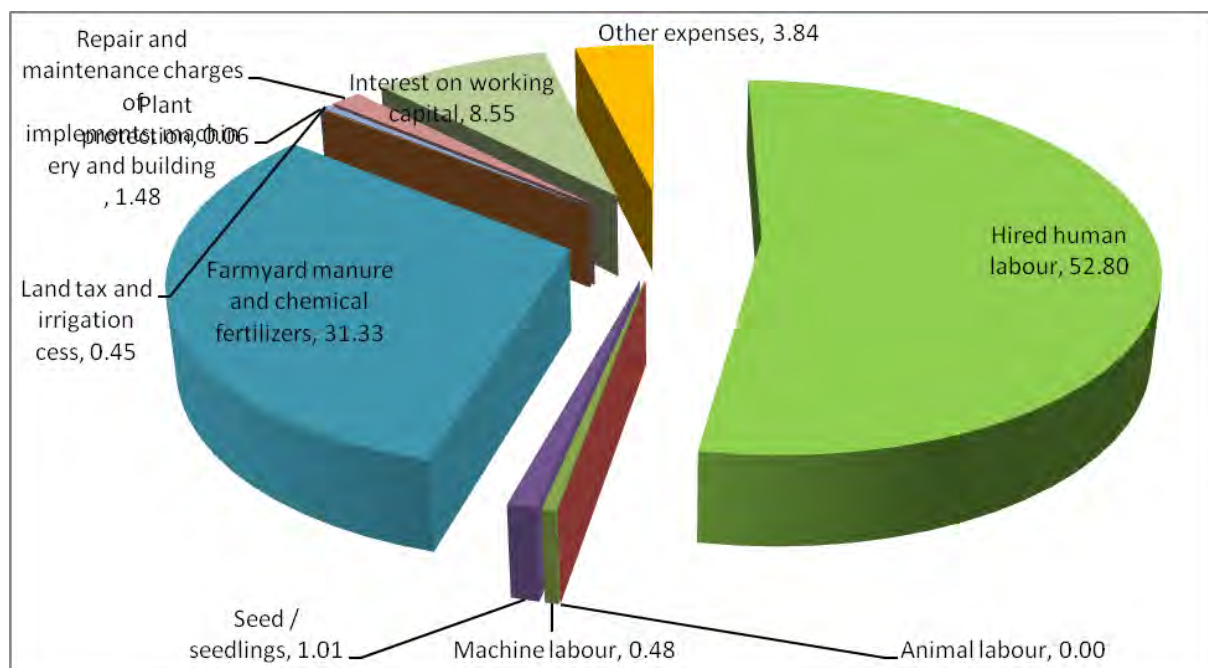
Cost of Cultivation

The different cost components of Arecanut cultivation is given below: Per hectare cost expenses is worked out as Rs.84897/- excluding interest on fixed capital, interest on land value and household labour components. Out of this 52.80 % cost is for hired human labour and 31.33% 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	46512	44675	42874	44822
2	Animal labour				
3	Machine labour	72	417	810	406
4	Seed / seedlings	1321	985	149	855
5	Farmyard manure and chemical fertilizers	16703	25789	39656	26598
6	Plant protection	9	58	84	47
7	Land tax and irrigation Cess	262	418	501	384
8	Repair and maintenance charges of implements, machinery and building	1937	889	767	1254
9	Interest on working capital	6462	7192	8357	7273
10	Other expenses	3291	3185	3288	3258
11	Total Cost 'A' (1-10)	76569	83608	96486	84897
12	Interest on fixed capital	8340	4970	4737	6192
13	Cost 'B1' (11+12)	84909	88578	101223	91089
14	Interest on land value	535156	380642	361694	434148
15	Cost 'B' (13+14)	620065	469220	462917	525237
16	Imputed value of household labour	23881	15360	8945	16645
17	Cost 'C' (15+16)	643946	484580	471862	541882

Percentage Distribution of “COST A” per hectare of arecanut during 2017-18



The following table illustrates the work participation of arecanut cultivation. It shows that out of 69.52 per cent of the total labour hours 17.25% has been shared by females and 52.27 % 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	50.00	52.42	56.21	52.27
Female	19.70	28.28	35.79	17.25
Total	69.70	80.70	92.00	69.52

Table 27: Cost of Cultivation of Arecanut per hectare (in Rs) during 2015-16,2016-2017 and 2017-2018

Concept of cost	Year	Holding Size class			
		Small	Medium	Large	All size
Cost 'A'	2015-2016	53268	62992	88941	68723
	2016-2017	65278	66065	83813	72041
	2017-2018	76569	83608	96486	84897
Cost 'B'	2015-2016	264419	204079	213255	225454
	2016-2017	341850	318491	283827	313178
	2017-2018	620065	469220	462917	525237
Cost 'C'	2015-2016	285481	215301	222224	238907
	2016-2017	366930	333689	290920	328421
	2017-2018	643946	484580	471862	541882

Value of out put

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

The estimated value of output per hectare is Rs.248838/- against the per hectare cost A of cultivation is Rs 84897/-.

Holding Size Class			
Small	Medium	Large	All Sizes
257922	232244	253930	248838

2.4 Tapioca during 2017-18

Area under the crop in this study was 186.63 hectare from 896 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	592	52.48	28.12	0.09
Medium	252	79.47	42.58	0.32
Large	52	54.68	29.30	1.05
Total	896	186.63	100	0.21

The average size of a selected holding is 0.21 hectare

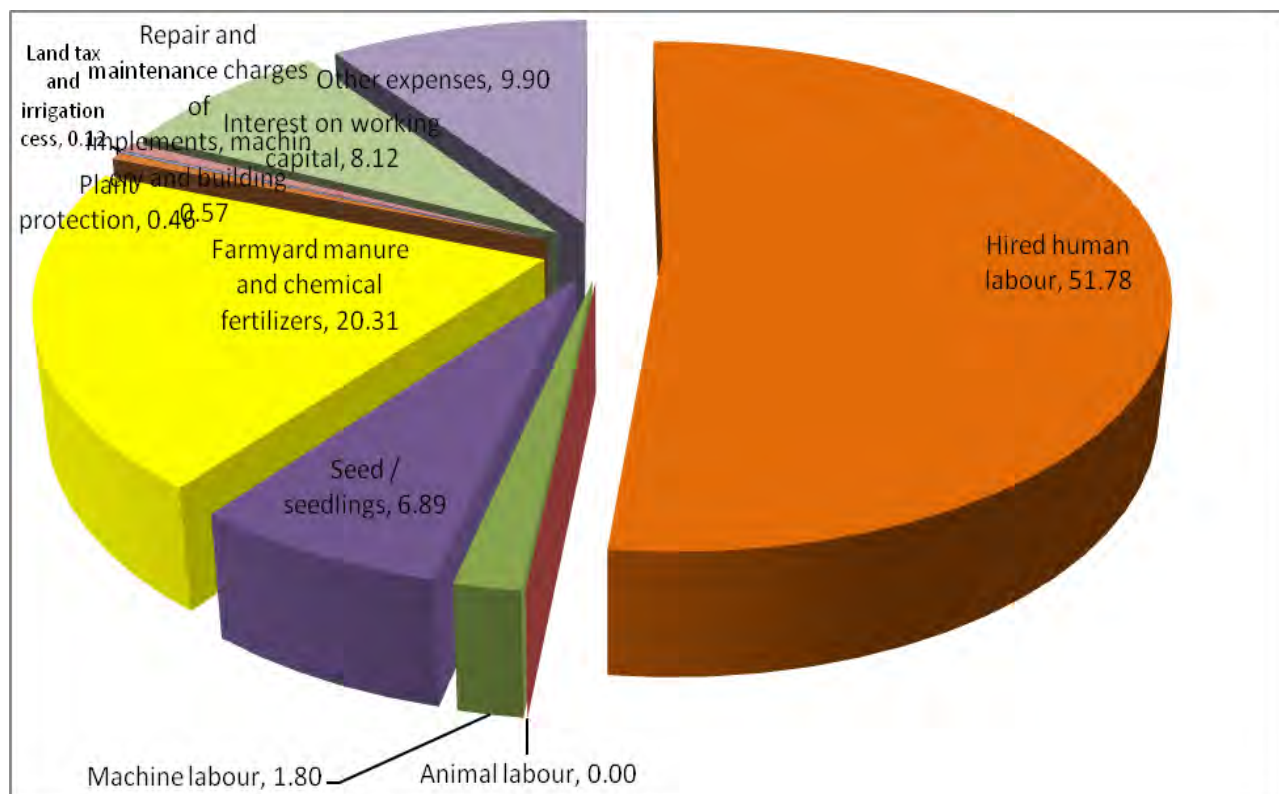
Cost of Cultivation

When Cost A is considered, per hectare cost of cultivation of tapioca is worked out as Rs. 103061/- . In this cost A, hired human labour cost constituted 51.78 % where as farmyard manure and chemical fertilizers shares 20.31%. Interest on working capital 8.12% and other expenses contribute 9.90%.. 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	55470	56945	46142	53365
2	Animal labour				
3	Machine labour	819	1498	3384	1859
4	Seed / seedlings	7447	6838	7155	7102
5	Farmyard manure and chemical fertilizers	21777	21530	19236	20928
6	Plant protection	553	563	257	471
7	Land tax and irrigation Cess	176	109	88	122
8	Repair and maintenance charges of implements, machinery abuilding	1410	494	117	641
9	Interest on working capital	8607	8737	7617	8372
10	Other expenses	7323	11726	10748	10201
11	Total Cost 'A' (1-10)	103582	108440	94744	103061
12	Interest on fixed capital	4015	1726	1015	2161
13	Cost 'B1' (11+12)	107597	110166	95759	105222
14	Interest on land value	503276	685928	361611	539543
15	Cost 'B' (13+14)	610873	796094	457370	644765
16	Imputed value of household labour	55198	27053	18235	32384
17	Cost 'C' (15+16)	666071	823147	475605	677149

Percentage Distribution of “COST A” per hectare of Tapioca during 2017-18



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	42.76	58.67	48.92	50.73
Female	10.54	15.82	23.16	9.43
Total	53.30	74.49	72.08	60.16

In tapioca cultivation 50.73% of the total human labour hours have been shared by hired male human labour.

Table 32: Cost of cultivation of Tapioca per hectare (In Rs.) during 2015-16 2016-17 and 2017-18

A comparative statement for 2015-16, 2016-17 and 2017-18 for cost of cultivation of different concept is given below.

Concept of cost	Year	Holding Size class			
		Small	Medium	Large	All size
Cost "A"	2015-2016	87558	83356	86875	85382
	2016-2017	93668	98970	91128	95899
	2017-2018	103582	108440	94744	103061
Cost 'B'	2015-2016	349167	300010	224674	296023
	2016-2017	349459	318768	245818	313192
	2017-2018	610873	796094	457370	644765
Cost 'C'	2015-2016	382535	323089	232492	319575
	2016-2017	399753	348112	261313	345822
	2017-2018	666071	823147	475605	677149

Value of Out put

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

Holding Size Class			
Small	Medium	Large	All Sizes
292746	282230	290088	287490

The value of output for medium holding size class has slight variation. The value of out put per hectre of Tapioca is estimated as Rs.287490/- where as the cost of cultivation per hectre, the paid out cost actually increased by the cultivators is only Rs.103061/-.

2.5 Banana during 2017-18

To study the cost of cultivation on banana 880 sample holdings were selected by covering an area of 250.43 hectares under three different holding size classes with an average area per holding of 0.28 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	480	44.37	17.72	0.09
Medium	313	105.91	42.29	0.34
Large	87	100.15	39.99	1.15
Total	880	250.43	100.00	0.28

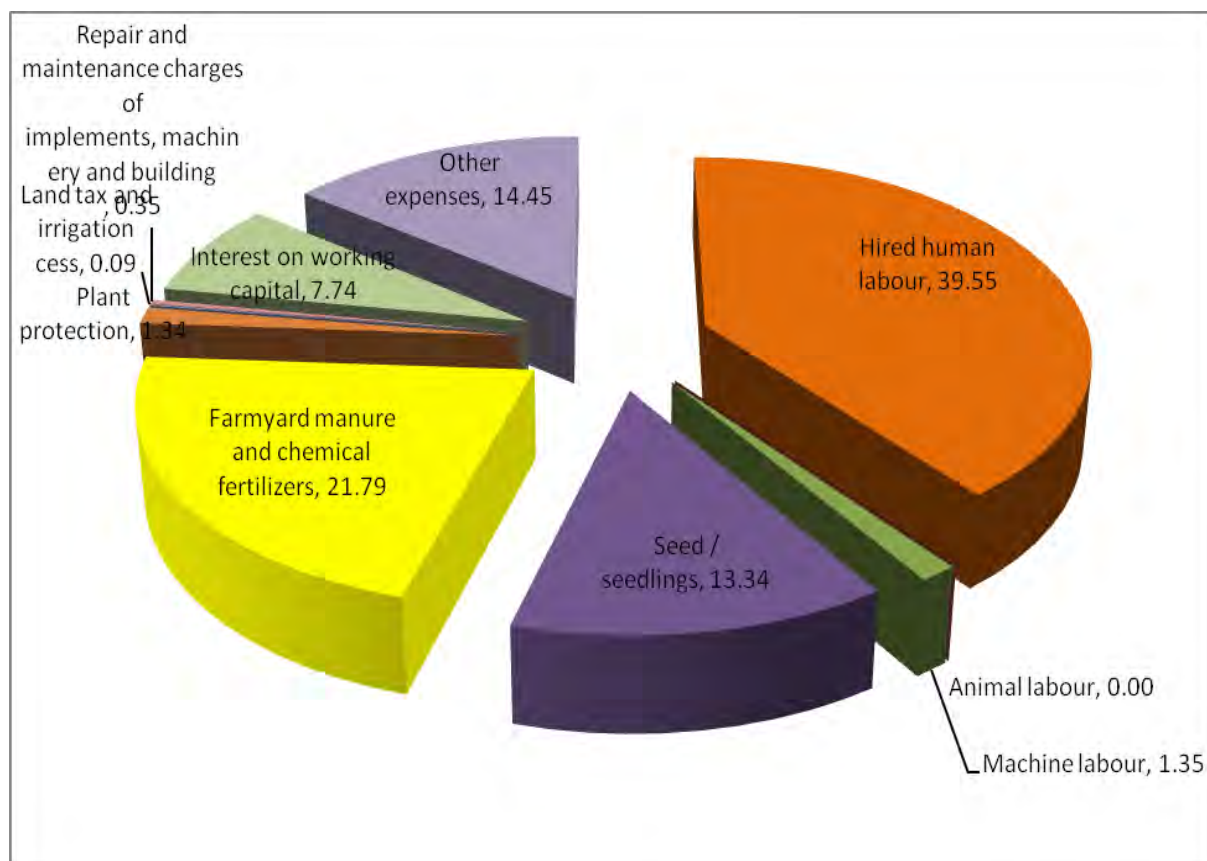
Cost of Cultivation

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	70958	79363	68684	73603
2	Animal labour				
3	Machine labour	1581	2141	3308	2509
4	Seed / seedlings	25987	25899	23156	24818
5	Farmyard manure and chemical	47707	39169	38839	40549
6	Plant protection	3145	2301	2395	2488
7	Land tax and irrigation Cess	254	161	126	164
8	Repair and maintenance charges of implements, machinery and building	1622	609	271	652
9	Interest on working capital	14938	14887	13638	14397
10	Other expenses	25726	23509	31008	26901
11	Total Cost 'A' (1-10)	191918	188039	181425	186081
12	Interest on fixed capital	11720	3115	1264	3899
13	Cost 'B1' (11+12)	203638	191154	182689	189980
14	Interest on land value	485308	471264	794734	603115
15	Cost 'B' (13+14)	688946	662418	977423	793095
16	Imputed value of household labour	75372	36777	23388	38260
17	Cost 'C' (15+16)	764318	699195	1000811	831355

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 186081/- Out of this 39.55% cost involved in hired human labour component, 21.79% cost for farmyard manure and chemical fertilizers and Seed/Seedlings constitute 13.34 % and other expenses shares 14.45%.

Percentage Distribution of "COST A" per hectare of Banana during 2017-18



In Banana cultivation male participation (57.03%) is higher than that of female (8.48%). 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	42.45	58.57	64.67	57.03
Female	8.89	18.27	20.91	8.48
Total	51.34	76.84	85.58	65.51

Table 37: Cost of Cultivation per hectare of Banana (In Rs.) during 2015-16, 2016-17 & 2017-18

A comparative statement for 2015-16, 2016-17 and 2017-18 for cost of cultivation of different concept is given below.

Concept of cost	Year	Holding Size class			
		Small	Medium	Large	All size
Cost 'A'	2015-2016	174366	170502	185338	176400
	2016-2017	196833	178653	180623	182921
	2017-2018	191918	188039	181425	186081
Cost 'B'	2015-2016	405366	334381	348212	354317
	2016-2017	449311	371831	453128	414249
	2017-2018	688946	662418	977423	793095
Cost 'C'	2015-2016	458374	367056	371057	387989
	2016-2017	510730	411366	484459	455408
	2017-2018	764318	699195	1000811	831355

Value of out put

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

Holding Size Class			
Small	Medium	Large	All Sizes
515275	477086	471294	481535

During 2017-18 per hectare value of output from banana cultivation is estimated out as **Rs. 481535/-** whereas the cost A per hectre is Rs186081/-.

2.6 Pepper during 2017-18

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	778	48.59	45.25	0.06
Medium	118	40.94	38.13	0.35
Large	19	17.85	16.62	0.94
Total	915	107.38	100.00	0.12

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 is 57.82 % and the farmyard manure and chemical fertilizer cost is 24.20% 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	46884	44725	35931	44240
2	Animal labour				
3	Machine labour	28	263	776	242
4	Seed / seedlings	1062	2400	4996	2226
5	Farmyard manure and chemical fertilizers	18748	18257	18486	18517
6	Plant protection	465	880	494	628
7	Land tax and irrigation Cess	251	221	197	230
8	Repair and maintenance charges of implements, machinery and building	1857	887	784	1308
9	Interest on working capital	6719	6653	6068	6585
10	Other expenses	3017	2011	2406	2534
11	Total Cost 'A' (1 to 10)	79031	76297	70138	76510
12	Interest on fixed capital	10115	2943	1878	6011
13	Cost 'B1' (11+12)	89146	79240	72016	82521
14	Interest on land value	605060	382851	366565	480684
15	Cost 'B' (13+14)	694206	462091	438581	563205
16	Imputed value of household labour	43547	18758	13263	29060
17	Cost 'C' (15+16)	737753	480849	451844	592265

Percentage Distribution of “COST A” per hectare of Pepper during 2017--18

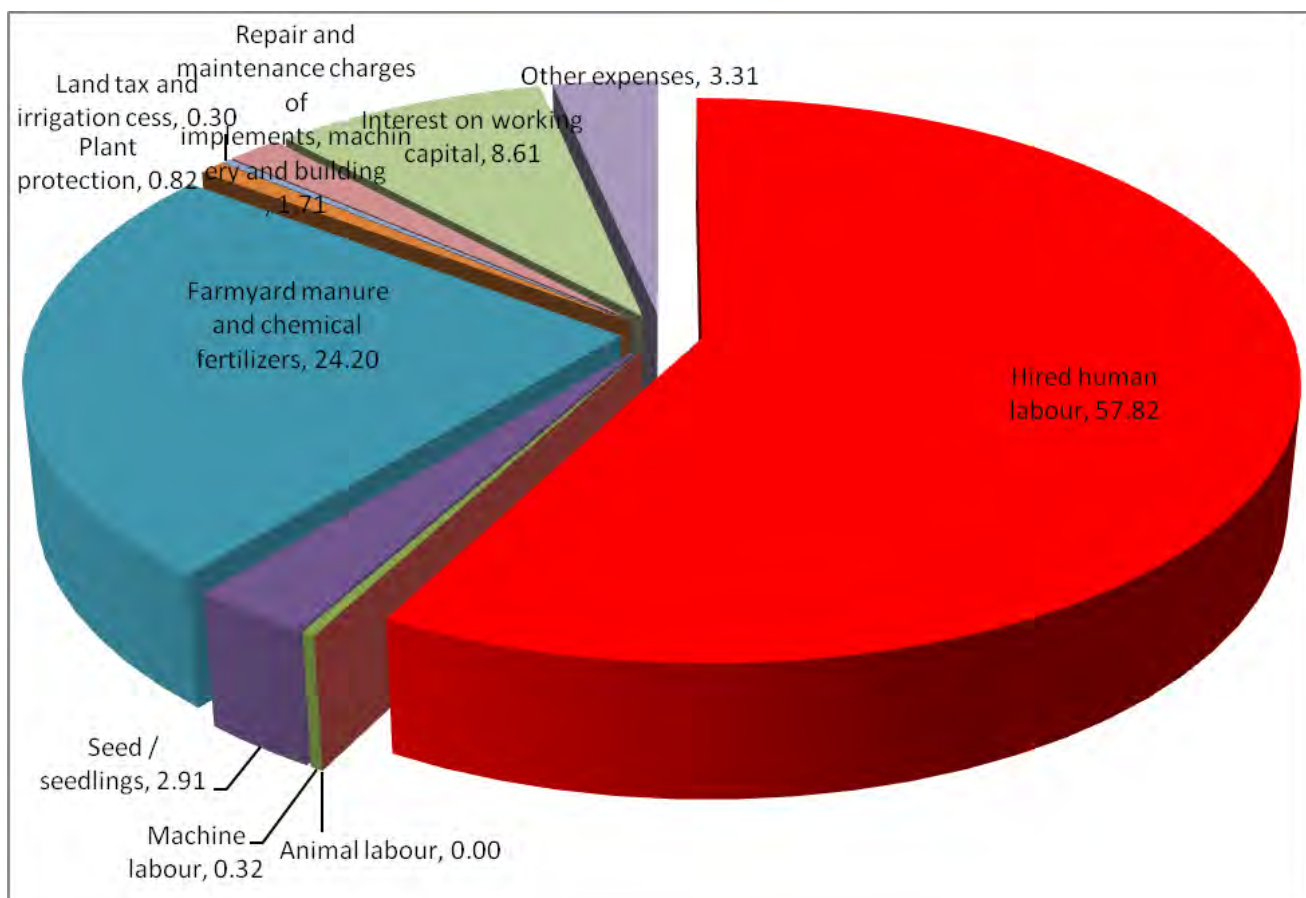


Table 41: Percentage of hired human labour hours to total human labour hours

Sex	Holding size class			
	Small	Medium	Large	All Sizes
Male	39.71	58.25	66.24	49.18
Female	9.70	20.58	18.15	8.02
Total	49.41	78.83	84.39	57.20

Table 42: Cost of cultivation of Pepper per hectare (In Rs.) during 2015-16, 2016-17 & 2017-18.

A comparative statement for 2015-16, 2016-17 & 2017-18 for cost of cultivation of different concept is given below.

Concept of cost	Year	Holding Size class			
		Small	Medium	Large	All size
Cost 'A'	2015-2016	59080	54626	71719	59074
	2016-2017	81368	73558	76632	77019
	2017-2018	79031	76297	70138	76510
Cost 'B'	2015-2016	265694	198610	178394	224842
	2016-2017	355060	268938	256353	300157
	2017-2018	694206	462091	438581	563205
Cost 'C'	2015-2016	290088	217378	192079	245313
	2016-2017	396044	284930	264410	324567
	2017-2018	737753	480849	451844	592265

Value of out put

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

Holding Size Class			
Small	Medium	Large	All Sizes
267637	268083	200702	256679

During 2017-18 it is estimated that Rs .256679/- has been received as value of Output from per hectare pepper cultivation whereas cost A for Cultivation is Rs.76510/-.

2.7 Ginger during 2017-18

For the cost of cultivation study during 2017-18, 768 sample holdings were selected for the crop ginger and total area covered for study is 73.85 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	683	32.37	43.83	0.05
Medium	67	19.42	26.29	0.29
Large	18	22.06	29.87	1.23
Total	768	73.85	100.00	0.10

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 39.08% of the total cost. Seed/seedling and farmyard manure and fertilizer share is 24.47% and 13.53% 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	73361	102733	114320	93321
2	Animal labour				
3	Machine labour	597	3814	8315	3748
4	Seed / seedlings	50850	60269	67943	58433
5	Farmyard manure and chemical fertilizers	29023	33661	35950	32312
6	Plant protection	1068	5026	16327	6667
7	Land tax and irrigation cess	208	118	131	161
8	Repair and maintenance charges of implements, machinery and building	1902	1119	334	1228
9	Interest on working capital	15490	20550	24286	19448
10	Other expenses	7700	24845	45501	23502
11	Total Cost 'A' (1-10)	180199	252135	313107	238820
12	Interest on fixed capital	3970	2268	4258	3609
13	Cost 'B1' (11+12)	184169	254403	317365	242429
14	Interest on land value	402348	257553	226628	311778
15	Cost 'B' (13+14)	586517	511956	543993	554207
16	Imputed value of household labour	65487	36187	16427	43127
17	Cost 'C' (15+16)	652004	548143	560420	597334

Percentage Distribution of “COST A” per hectare of Ginger during 2017-18

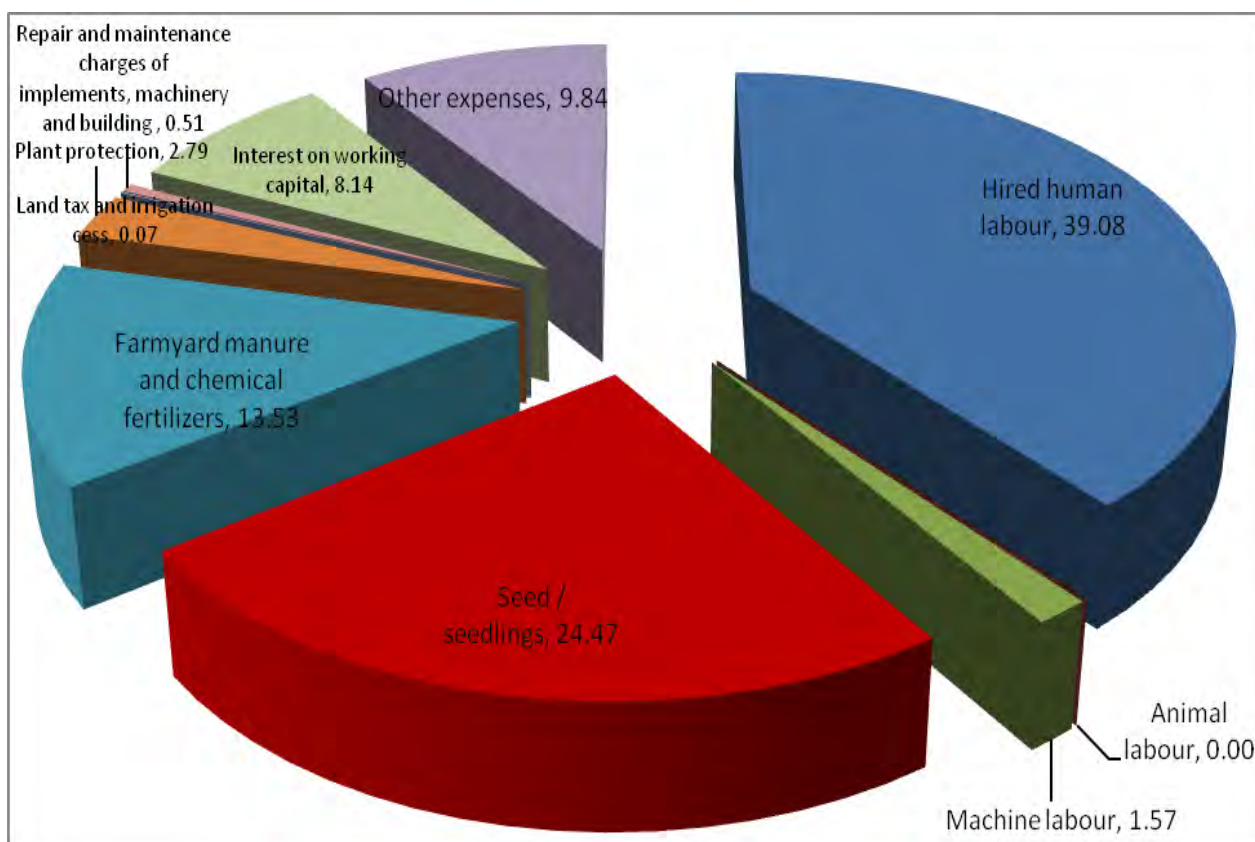


Table 46: Percentage distribution of hired human labour hours to total human labour hours

Sex	Holding size class			
	Small	Medium	Large	All Sizes
Male	35.11	39.19	30.72	34.64
Female	22.06	37.24	46.36	38.24
Total	57.17	76.43	77.08	72.88

Table 47: Cost of cultivation of Ginger per hectare (In Rs.) during 2015-16, 2016-17 and 2017-18

A comparative statement for 2015-16, 2016-17 & 2017-18 for cost of cultivation of different concept is given below.

Concept of cost	Year	Holding Size class			
		Small	Medium	Large	All size
Cost 'A'	2015-2016	143938	163925	324740	196316
	2016-2017	186160	249362	297613	235296
	2017-2018	180199	252135	313107	238820
Cost 'B'	2015-2016	325553	252384	452737	330415
	2016-2017	444079	393497	394003	414121
	2017-2018	586517	511956	543993	554207
Cost 'C'	2015-2016	370515	269701	465015	357097
	2016-2017	508481	431629	408255	457184
	2017-2018	652004	548143	560420	597334

Value of Out put

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

Holding Size Class			
Small	Medium	Large	All Sizes
344729	366071	389038	363578

The per hectare value of output estimated from Ginger cultivation is Rs.363578/- and the cost of cultivation per hectre is Rs 238820/- excluding interest on fixed capital, land value and household labour.

2.8 Turmeric during 2017-18

Sample holdings selected for the cost of cultivation study of turmeric is 778 which distributed among the three holding size classes and total area within the sample holding was 58.97 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	708	30.34	51.46	0.04
Medium	62	20.04	33.99	0.32
Large	8	8.59	14.55	1.07
Total	778	58.97	100.00	0.08

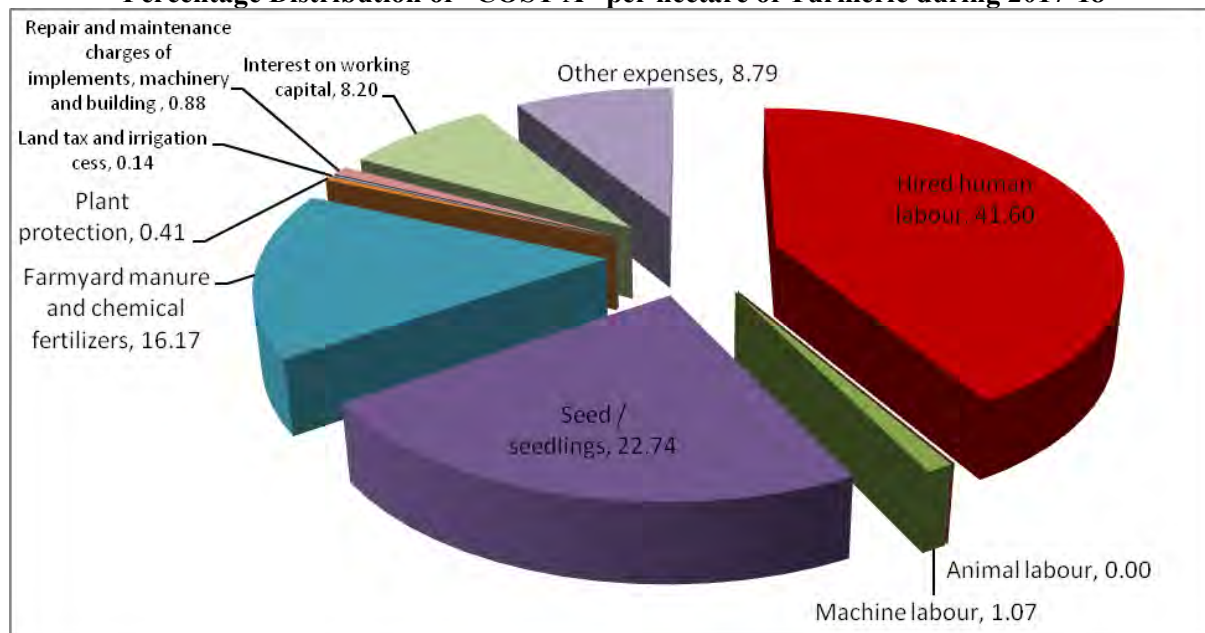
Cost of cultivation

The cash and other kind expenses incurred under Turmeric cultivation is estimated as Rs.137084/-per hectare. Out of this 41.60% is for hired human labour, 22.74% for seed/seedlings and 16.17% 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	64306	46831	55124	57030
2	Animal labour				
3	Machine labour	339	2745	2437	1462
4	Seed / seedlings	27293	32697	41369	31179
5	Farmyard manure and chemical fertilizers	22886	21241	21820	22172
6	Plant protection	134	683	1785	561
7	Land tax and irrigation Cess	243	148	94	189
8	Repair and maintenance charges of implements, machinery and building	2230	117	134	1206
9	Interest on working capital	11496	10420	12254	11240
10	Other expenses	5817	13877	29762	12045
11	Total Cost 'A' (1-10)	134744	128759	164779	137084
12	Interest on fixed capital	6015	2476	3451	4439
13	Cost 'B1' (11+12)	140760	131235	168230	141523
14	Interest on land value	450114	424476	236061	410227
15	Cost 'B' (13+14)	590874	555710	404291	551750
16	Imputed value of household labour	65372	30793	11793	45816
17	Cost 'C' (15+16)	656246	586504	416084	597567

Percentage Distribution of “COST A” per hectare of Turmeric during 2017-18



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	33.69	36.20	33.23	34.31
Female	18.69	26.46	43.48	22.07
Total	52.38	62.66	76.71	56.38

Table 52: Cost of cultivation of Turmeric per hectare (In Rs.) during 2015-16, 2016-17 & 2017-18

A comparative statement for 2015-16, 2016-2017 & 2017-18 for cost of cultivation of different concept is given below.

Concept of cost	Year	Holding Size class			
		Small	Medium	Large	All size
Cost 'A'	2015-2016	49225	129124	148027	73625
	2016-2017	100874	120763	186015	120755
	2017-2018	134744	128759	164779	137084
Cost 'B'	2015-2016	153149	280035	390089	198309
	2016-2017	355077	287094	443217	347665
	2017-2018	590874	555710	404291	551750
Cost 'C'	2015-2016	180736	302879	416640	224834
	2016-2017	425028	316950	450876	394999
	2017-2018	656246	586504	416084	597567

In 2016-17 cost of cultivation of turmeric per hectare is increased when compared to previous years. The component wise analysis reveals that hired human labour cost is increased.

Output

The per hectare value of output received from turmeric cultivation is estimated as Rs 287347/- during the year 2017-18 and cost of cultivation is estimated as Rs 137084/- 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
285037	263530	351093	287347

2.9 Pineapple during 2017-18

In the cost of cultivation study on pineapple 324 sample holdings were selected by covering area 420.90 hectares. Details of these holdings are given below

Table 54: Area and Number of holdings selected nder 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	121	7.53	1.79	0.06
Medium	77	31.22	7.42	0.41
Large	126	382.15	90.79	3.03
Total	324	420.90	100.00	1.30

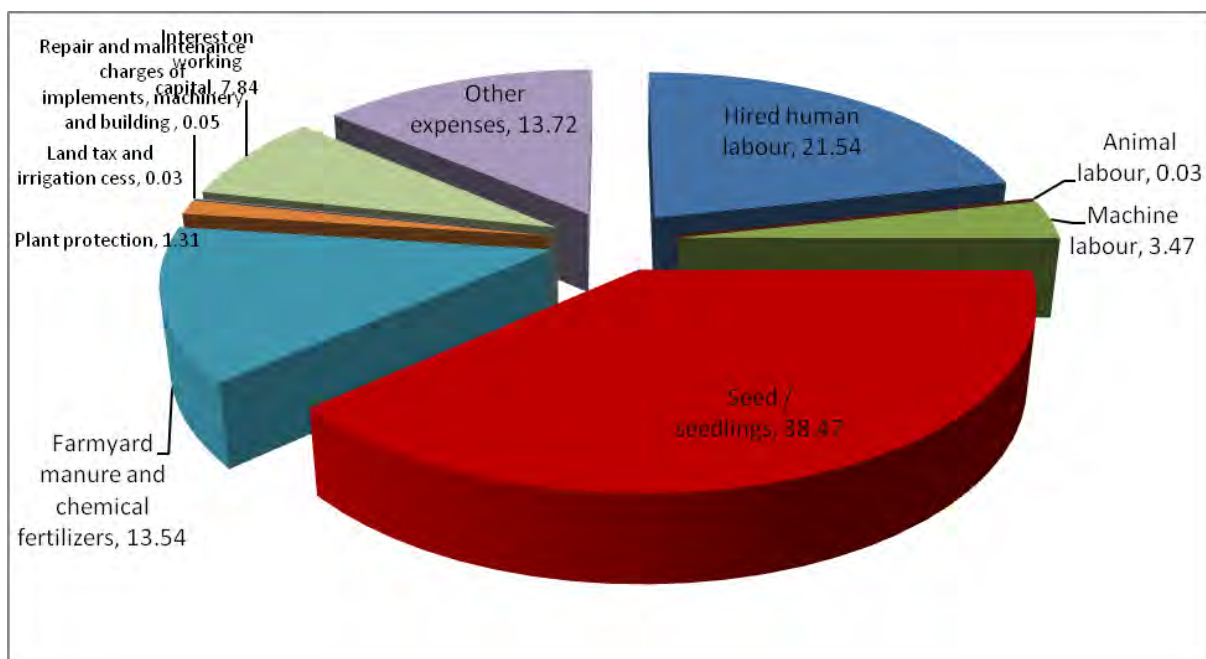
Cost of Cultivation

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 192302/-

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	41975	55918	40235	41430
2	Animal labour			63	57
3	Machine labour	1986	4799	6916	6671
4	Seed / seedlings	57904	69009	74698	73975
5	Farmyard manure and chemical fertilizers	20041	28748	25941	26044
6	Plant protection	2625	2498	2515	2515
7	Land tax and irrigation Cess	228	71	57	61
8	Repair and maintenance charges of implements, machinery and building	1167	164	68	94
9	Interest on working capital	12453	16097	15037	15069
10	Other expenses	6843	20034	27289	26386
11	Total Cost 'A' (1-10)	145222	197338	192819	192302
12	Interest on fixed capital	10890	1430	421	683
13	Cost 'B1' (11+12)	156112	198768	193240	192985
14	Interest on land value	734816	554179	494178	502937
15	Cost 'B' (13+14)	890928	752947	687418	695922
16	Imputed value of household labour	40683	13658	3986	5360
17	Cost 'C' (15+16)	931611	766605	691404	701282

Percentage Distribution of “COST A” per hectare of Pineapple during 2017-18



The hired human labour cost accounted as 21.54% whereas farmyard manure and chemical fertilizers cost as 13.54 percent of the total Cost 'A'. Seed/seedling cost constitutes to 38.47% of the total cost 'A'.

In Pineapple cultivation, male participation is higher than that of female. 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	41.85	52.43	68.41	65.82
Female	11.24	37.45	41.88	22.93
Total	53.09	89.88	110.29	88.75

Table: 57 Cost of cultivation of Pineapple per hectare (in Rs) during 2015-16, 2016-17 & 2017-18

Concept of cost	Year	Holding Size class			
		Small	Medium	Large	All size
Cost 'A'	2015-2016	141033	175180	253769	242651
	2016-2017	159841	251843	208893	212010
	2017-2018	145222	197338	192819	192302
Cost 'B'	2015-2016	346588	426874	480899	472034
	2016-2017	329639	446103	410821	412669
	2017-2018	890928	752947	687418	695922
Cost 'C'	2015-2016	373165	440580	487472	479826
	2016-2017	368428	462751	417074	420452
	2017-2018	931611	766605	691404	701282

Value of out put

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

Holding Size Class			
Small	Medium	Large	All Sizes
337976	391524	440670	435187

During 2017-18 per hectare value of output from pineapple cultivation is estimated as Rs.435187 /- and the cost of cultivating per hectare of pineapple is Rs.192302/-

2.10.1 Bitter Gourd- Autumn during 2017-18

For this study details of holding selected and area coverage are given below. The data collected from 356sample holdings by covering 49.48 hectares and the average area per holding is 0.14 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	269	16.91	34.18	0.06
Medium	80	24.33	49.17	0.30
Large	7	8.24	16.65	1.18
Total	356	49.48	100.00	0.14

Cost of cultivation

When Cost A is considered about 39.50 percent of cost constitutes to hired human labour, Interest on working capital shares 6.70% and farmyard manure and chemical fertilizers accounts to 20.17%. Total cost for cultivating one hectare of Bittergourd in Autumn season is Rs.124719/-.

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	61969	46513	31296	49261
2	Animal labour	274			94
3	Machine labour	515	1210	4339	1494
4	Seed / seedlings	5646	5090	3405	4999
5	Farmyard manure and chemical fertilizers	29078	22709	24300	25150
6	Plant protection	2563	2276	3040	2501
7	Land tax and irrigation cess	176	103	152	136
8	Repair and maintenance charges of implements, machinery and building	830	390	134	498
9	Interest on working capital	10004	7780	6638	8350
10	Other expenses	32582	33608	27480	32236
11	Total cost 'A' (1-10)	143637	119679	100784	124719
12	Interest on fixed capital	4824	2756	1661	3280
13	Cost 'B1' (11+12)	148461	122435	102445	127999
14	Interest on land value	429453	345790	157092	342957
15	Cost 'B' (13+14)	577914	468225	259537	470956
16	Imputed value of household labour	96785	42647	16400	56776
17	Cost 'C' (15+16)	674699	510872	275937	527732

Percentage Distribution of “COST A” per hectare of Bitter gourd (Autumn) during 2017-18

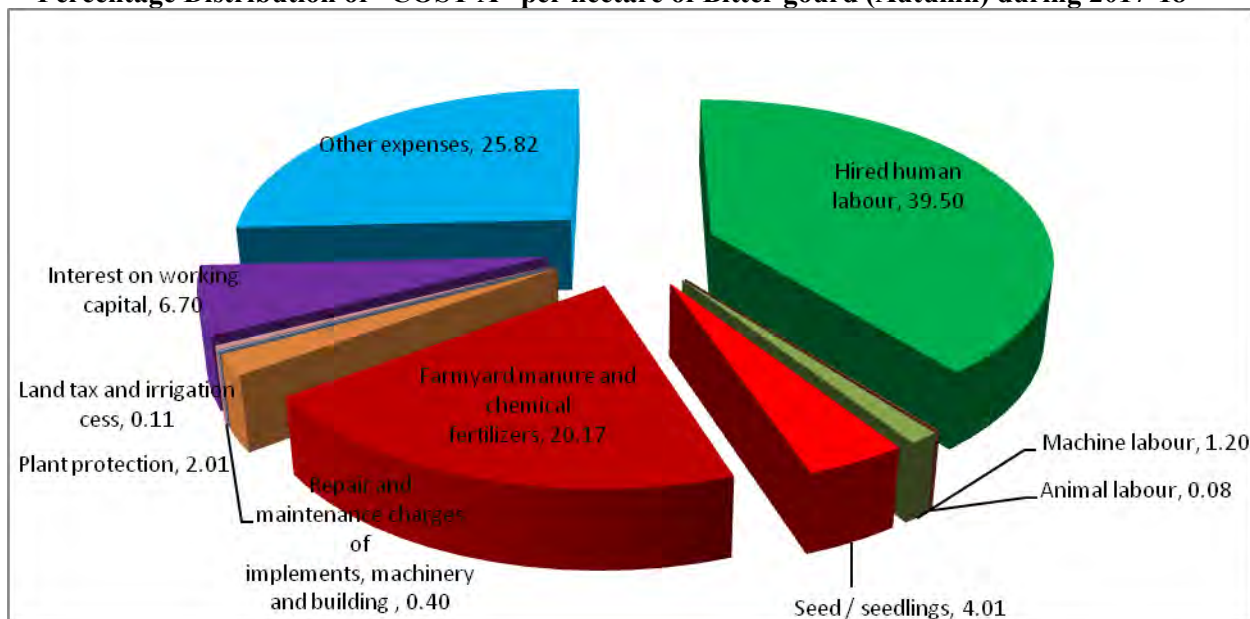


Table 61: Percentage of hired human labour hours to total human labour hours

Sex	Holding size class			
	Small	Medium	Large	All Sizes
Male	29.89	34.24	39.12	32.62
Female	7.88	19.79	25.88	11.80
Total	37.77	54.03	65.00	44.42

In Bitter Gourd (autumn) cultivation 11.80% 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 2015-16, 2016-17 & 2017-18

Concept of cost	Year	Holding Size class			
		Small	Medium	Large	All size
Cost 'A'	2015-2016	36571	102237	72468	63607
	2016-2017	92430	75188	100712	84721
	2017-2018	143637	119679	100784	124719
Cost 'B'	2015-2016	107599	288156	167623	168694
	2016-2017	262395	198988	221638	227797
	2017-2018	577914	468225	259537	470956
Cost 'C'	2015-2016	136245	331392	177549	194206
	2016-2017	337336	238086	247533	280897
	2017-2018	674699	510872	275937	527732

Table: 63 Value of product and by-product per hectare (in Rs.) of Bitter Gourd - Autumn 2017-18

Holding Size Class			
Small	Medium	Large	All Sizes
310751	385318	240527	335728

Value of product per hectare of Bitter gourd in Autumn season is estimated as Rs 335728/- whereas the cost of cultivation per hectre is Rs.124719/-.

2.10.2 Bitter Gourd -Winter during 2017-18

During 2017-18 Cost of cultivation study on Bitter gourd(Winter) season, 415 sample holdings by covering 45.46 hectare selected and the average area per holding covers to 0.11 hectare

Table 64 – Area and number of holdings under Bitter Gourd (Winter)

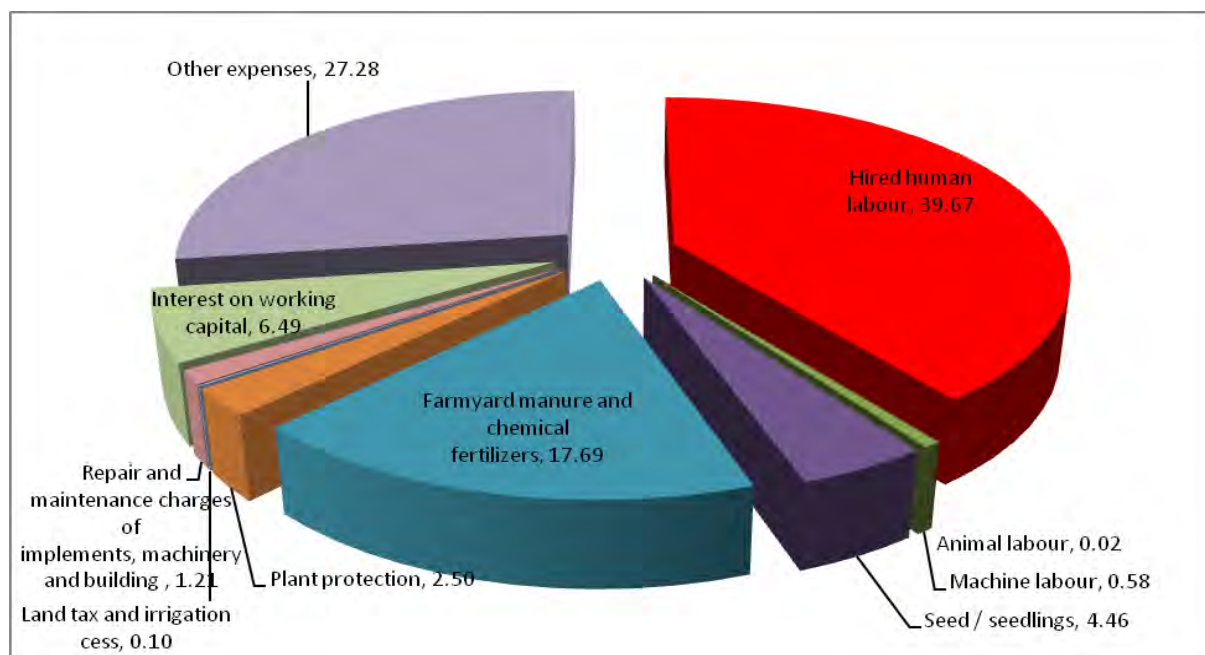
Holding size class	No of selected holdings	Area under the crop in the sample (ha)	Percentage Area	Area per holding (ha)
Small	341	20.83	45.82	0.06
Medium	69	19.87	43.71	0.29
Large	5	4.76	10.47	0.95
Total	415	45.46	100.00	0.11

Cost of Cultivation

In CostA, the major share of the cost component was hired human labour. It constitutes 39.67%. Also farmyard manure and chemical fertilizers account 17.69%. Other expense account was 27.28%. By considering the various cost component of Bitter gourd (winter) cultivation, per hectare cost calculated as Rs.135319/-

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	54477	51964	55704	53687
2	Animal labour	58			26
3	Machine labour	278	957	2344	789
4	Seed / seedlings	6262	6686	2420	6036
5	Farmyard manure and chemical fertilizers	26202	24072	12707	23941
6	Plant protection	3278	4018	1186	3380
7	Land tax and irrigation Cess	146	131	59	131
8	Repair and maintenance charges of implements, machinery and building	2734	812	227	1636
9	Interest on working capital	9055	8770	7436	8786
10	Other expenses	35120	39561	33862	36907
11	Total Cost 'A' (1-10)	137610	136971	115945	135319
12	Interest on fixed capital	9826	2661	4783	6152
13	Cost 'B1' (11+12)	147436	139632	120728	141471
14	Interest on land value	349931	225545	152452	274219
15	Cost 'B' (13+14)	497367	365177	273180	415690
16	Imputed value of household labour	97878	48671	45049	70768
17	Cost 'C' (15+16)	595245	413848	318229	486458

Percentage Distribution of “COST A” per hectare of Bittergourd (Winter) during 2017-18



Sex wise work participation percentage of hired human labours for Bitter gourd (Winter) cultivation shown below reveals that 13.49% of work shared by Female whereas percentage share to male workers is 28.35%.

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

Sex	Holding size class			
	Small	Medium	Large	All Sizes
Male	25.54	33.59	21.57	28.35
Female	9.50	19.74	30.67	13.49
Total	35.04	53.33	52.24	41.84

Table: 67 Cost of cultivation of Bitter Guard -Winter per hectare (in Rs) during 2015-16, 2016-17 & 2017-18

Concept of cost	Year	Holding Size class			
		Small	Medium	Large	All size
Cost 'A'	2015-2016	122771	120587	130773	122039
	2016-2017	153023	124261	71434	130756
	2017-2018	137610	136971	115945	135319
Cost 'B'	2015-2016	346464	238920	378957	289102
	2016-2017	357478	273900	123566	293065
	2017-2018	497367	365177	273180	415690
Cost 'C'	2015-2016	427606	279036	395247	343807
	2016-2017	456851	319650	142719	357506
	2017-2018	595245	413848	318229	486458

Output

Table: 68 - Value of Product and Byproduct per hectare (in Rs) of Bitter Gourd (Winter) 2017-18

Holding Size Class			
Small	Medium	Large	All Sizes
328869	330299	298462	326496

2.10.3 Bitter Gourd - Summer during 2017-18

For the cost of cultivation study on Bitter gourd (summer) during 2017-18 the total number of sample holdings selected was 339. 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	302	14.77	48.14	0.05
Medium	31	9.96	32.46	0.32
Large	6	5.95	19.39	0.99
All Size	339	30.68	100.00	0.09

The total area under cultivation in the selected sample holdings covers 30.68 hectares and the average size of a holding is 0.09 hectare

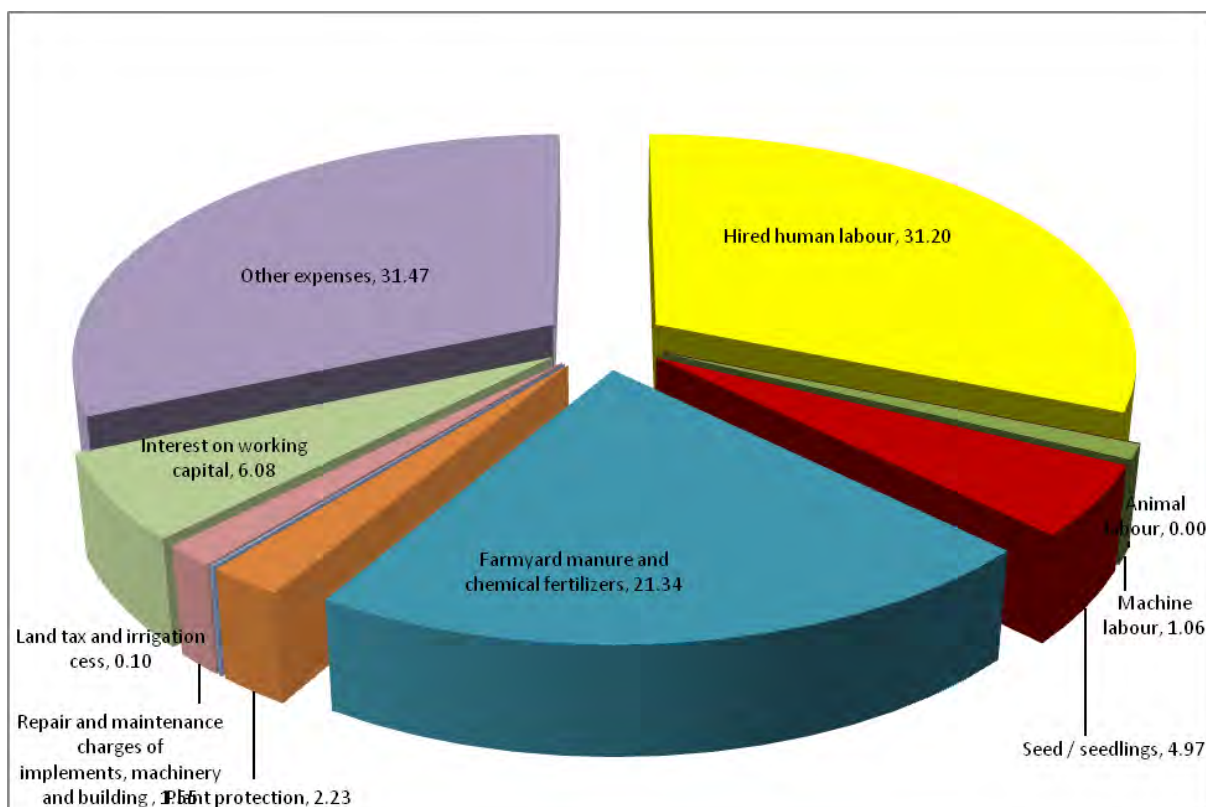
Cost of Cultivation

Cost of cultivation of Bitter gourd (Summer) per hectare is estimated as Rs.143294/- when cost 'A' is considered. Hired human labour gives a share of 31.20% and other expense gives 31.47%. 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	53385	41770	28066	44704
2	Animal labour				
3	Machine labour	1028	577	4328	1522
4	Seed / seedlings	8052	7927	3431	7115
5	Farmyard manure and chemical fertilizers	31215	28887	31816	30576
6	Plant protection	2507	3293	4708	3189
7	Land tax and irrigation Cess	211	120		141
8	Repair and maintenance charges of implements, machinery and building	3295	1785	284	2221
9	Interest on working capital	9619	8245	7235	8711
10	Other expenses	36198	38544	78250	45115
11	Total Cost 'A' (1-10)	145510	131148	158118	143294
12	Interest on fixed capital	18250	4430	943	10409
13	Cost 'B1' (11+12)	163760	135578	159061	153703
14	Interest on land value	294386	147847	248690	237959
15	Cost 'B' (13+14)	458146	283425	407751	391662
16	Imputed value of household labour	101453	56589	14510	70027
17	Cost 'C' (15+16)	559599	340014	422261	461689

Percentage Distribution of “COST A” per hectare of Bitter gourd (Summer) during 2017-18



In Bitter gourd (Summer) cultivation male labour participation accounted as 28.93% 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	27.79	29.49	35.10	28.93
Female	5.34	18.63	33.89	10.16
Total	33.13	48.12	68.99	39.09

Table: 72 Cost of cultivation of Bitter Gourd -Summer per hectare (in Rs) during 2015-16, 2016-17 & 2017-18

Concept of cost	Year	Holding Size class			
		Small	Medium	Large	All size
Cost 'A'	2015-2016	111674	153456	193324	136245
	2016-2017	164503	140876	165517	154825
	2017-2018	145510	131148	158118	143294
Cost 'B'	2015-2016	271605	297088	390532	291955
	2016-2017	360409	265770	524620	331270
	2017-2018	458146	283425	407751	391662
Cost 'C'	2015-2016	345753	347581	416332	352028
	2016-2017	457793	310213	550457	402525
	2017-2018	559599	340014	422261	461689

Table 73: Value of Product and by product per hectare (in Rs) of Bitter Gourd (Summer) during 2017-18

Holding Size Class			
Small	Medium	Large	All Sizes
309445	256099	162239	263578

2.11.1 Cowpea- Autumn during 2017-18

Sample of holding selected and area coverage for the study was 381 holdings by covering 44.41 hectares and the average area per holding was 0.12 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	314	21.37	48.13	0.07
Medium	62	17.17	38.62	0.28
Large	5	5.87	13.22	1.17
Total	381	44.41	100.00	0.12

Cost of cultivation

When Cost A is considered about 45.26 percent of cost constitutes to hired human labour, and farmyard manure and chemical fertilizers accounts to 18.61%. But the other expenses account a share of 21.89%.

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	58236	53832	56849	56350
2	Animal labour		20		8
3	Machine labour	483	1635	3799	1367
4	Seed / seedlings	4656	3882	2412	4060
5	Farmyard manure and chemical fertilizers	23894	22706	21860	23166
6	Plant protection	3149	2203	2464	2693
7	Land tax and irrigation cess	178	121	62	141
8	Repair and maintenance charges of implements, machinery and building	992	467	220	687
9	Interest on working capital	9042	8428	8738	8764
10	Other expenses	26173	27769	29687	27254
11	Total cost 'A' (1-10)	126803	121063	126091	124490
12	Interest on fixed capital	4099	2374	2282	3192
13	Cost 'B1' (11+12)	130902	123437	128373	127682
14	Interest on land value	321768	317688	671428	366417
15	Cost 'B' (13+14)	452670	441125	799801	494099
16	Imputed value of household labour	74188	42275	11490	53562
17	Cost 'C' (15+16)	526858	483400	811291	547661

**Percentage Distribution of “COST A” per hectare of cowpea (Autumn)
during 2017-18**

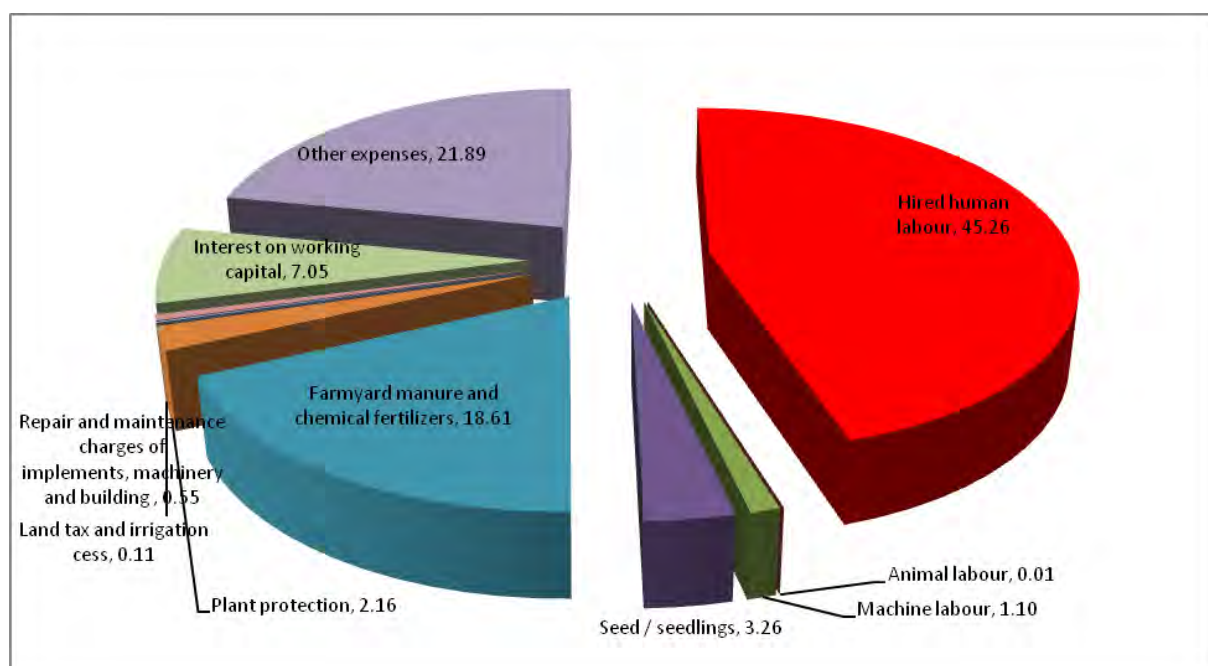


Table 76: Percentage of hired human labour hours to total human labour hours

Sex	Holding size class			
	Small	Medium	Large	All Sizes
Male	32.77	35.33	36.91	34.07
Female	10.50	22.78	43.81	15.93
Total	43.27	58.11	80.72	50.00

In Cowpea (Autumn) cultivation 34.07% of total labour hours goes to males.

Table: 77 Cost of cultivation of Cowpea -Autumn per hectare (in Rs) during 2015-16, 2016-17& 2017-18

Concept of cost	Year	Holding Size class			
		Small	Medium	Large	All size
Cost 'A'	2015-2016	47980	125092	267435	77017
	2016-2017	106110	116222	15975	108761
	2017-2018	126803	121063	126091	124490
Cost 'B'	2015-2016	133639	295855	497380	190921
	2016-2017	263786	241715	90406	251800
	2017-2018	452670	441125	799801	494099
Cost 'C'	2015-2016	167192	349112	549568	230440
	2016-2017	343977	292010	115770	318985
	2017-2018	526858	483400	811291	547661

Table: 78 Value of product and by-product per hectare (in Rs.) of Cowpea-Autumn 2017-18

Holding Size Class			
Small	Medium	Large	All Sizes
311151	295970	272283	300144

2.11.2 Cowpea -Winter during 2017-18

During 2017-18 Cost of cultivation study on Cowpea (winter) was conducted in 491 holdings by covering 50.79 hectare of land. Details of these holdings are given below:

Table 79 – Area and number of holdings under Cowpea Winter

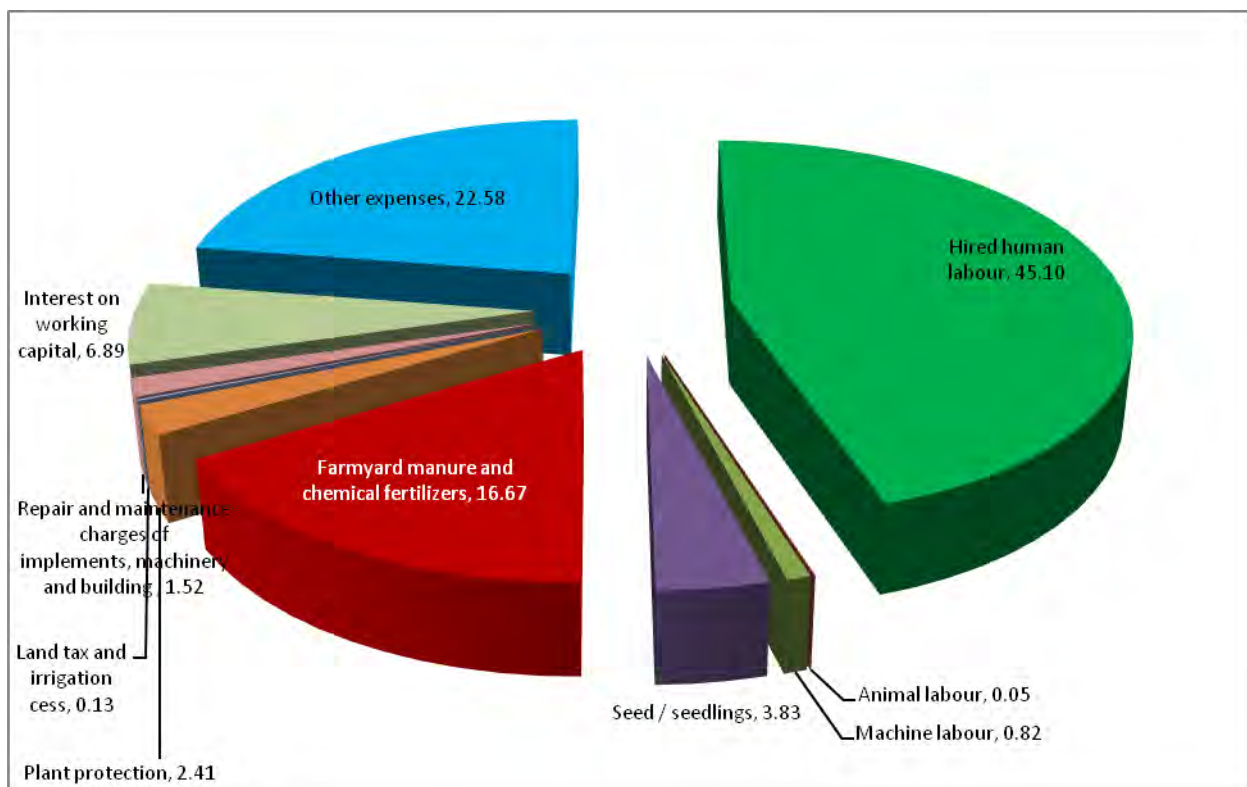
Holding size class	No of selected holdings	Area under the crop in the sample (ha)	Percentage Area	Area per holding (ha)
Small	414	28.61	56.33	0.07
Medium	75	20.16	39.69	0.27
Large	2	2.02	3.98	1.01
Total	491	50.79	100.00	0.10

Cost of Cultivation

In Cost A, the major share of the cost component was hired human labour. It constitutes 45.10% and farmyard manure and chemical fertilizers which accounted 16.67% respectively. Interest on working capital was 6.89%. The share of other expenses contributes 22.58%. By considering the various cost component of Cowpea (winter) cultivation per hectare cost calculated as Rs.126257/-.

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	57988	54592	57377	56939
2	Animal labour	108			61
3	Machine labour	651	1346	3211	1037
4	Seed / seedlings	4611	4911	6323	4830
5	Farmyard manure and chemical fertilizers	21503	20792	13951	21051
6	Plant protection	2393	3899	2766	3042
7	Land tax and irrigation Cess	172	148	198	164
8	Repair and maintenance charges of implements, machinery and building	2316	1421	721	1918
9	Interest on working capital	8725	8554	8363	8696
10	Other expenses	27773	28020	37049	28519
11	Total Cost 'A' (1-10)	126240	123683	129959	126257
12	Interest on fixed capital	10620	3095	853	7232
13	Cost 'B1' (11+12)	136860	126778	130812	133489
14	Interest on land value	298707	253754	143967	274418
15	Cost 'B' (13+14)	435567	380532	274779	407907
16	Imputed value of household labour	98322	54593	36532	79537
17	Cost 'C' (15+16)	533889	435125	311311	487444

Percentage Distribution of “COST A” per hectare of Cowpea (Winter) during 2017-18



Sex wise work participation in hired human labours for Cowpea (winter) cultivation reveals that 13.56% of work shared by Female whereas 27.84% 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	26.67	30.09	36.46	27.84
Female	10.27	22.81	32.77	13.56
Total	36.94	52.90	69.23	41.40

Table: 82 Cost of cultivation of Cowpea -Winter per hectare (in Rs) during 2015-16, 2016-17 & 2017-18

Concept of cost	Year	Holding Size class			
		Small	Medium	Large	All size
Cost 'A'	2015-2016	113061	94862	181882	106713
	2016-2017	120969	122675	94395	119638
	2017-2018	126240	123683	129959	126257
Cost 'B'	2015-2016	280580	225644	321148	253671
	2016-2017	321224	240075	173800	271469
	2017-2018	435567	380532	274779	407907
Cost 'C'	2015-2016	354355	272786	346428	311244
	2016-2017	406066	288472	194169	334104
	2017-2018	533889	435125	311311	487444

Output

Table: 83 - Value of Product and Byproduct per hectare (in Rs) of Cowpea -Winter 2017-18

Holding Size Class			
Small	Medium	Large	All Sizes
287726	233678	257164	267466

2.11.3 Cowpea - Summer (Puncha) during 2017-18

For the cost of cultivation study on Cowpea (summer) during 2017-18 the total number of holdings selected was 450. 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	389	25.59	55.25	0.07
Medium	58	17.90	38.64	0.31
Large	3	2.83	6.11	0.94
Total	450	46.32	100	0.10

The total area under cultivation in the selected sample holdings covers to 46.32 hectares and the average size of a holding is 0.10 hectare.

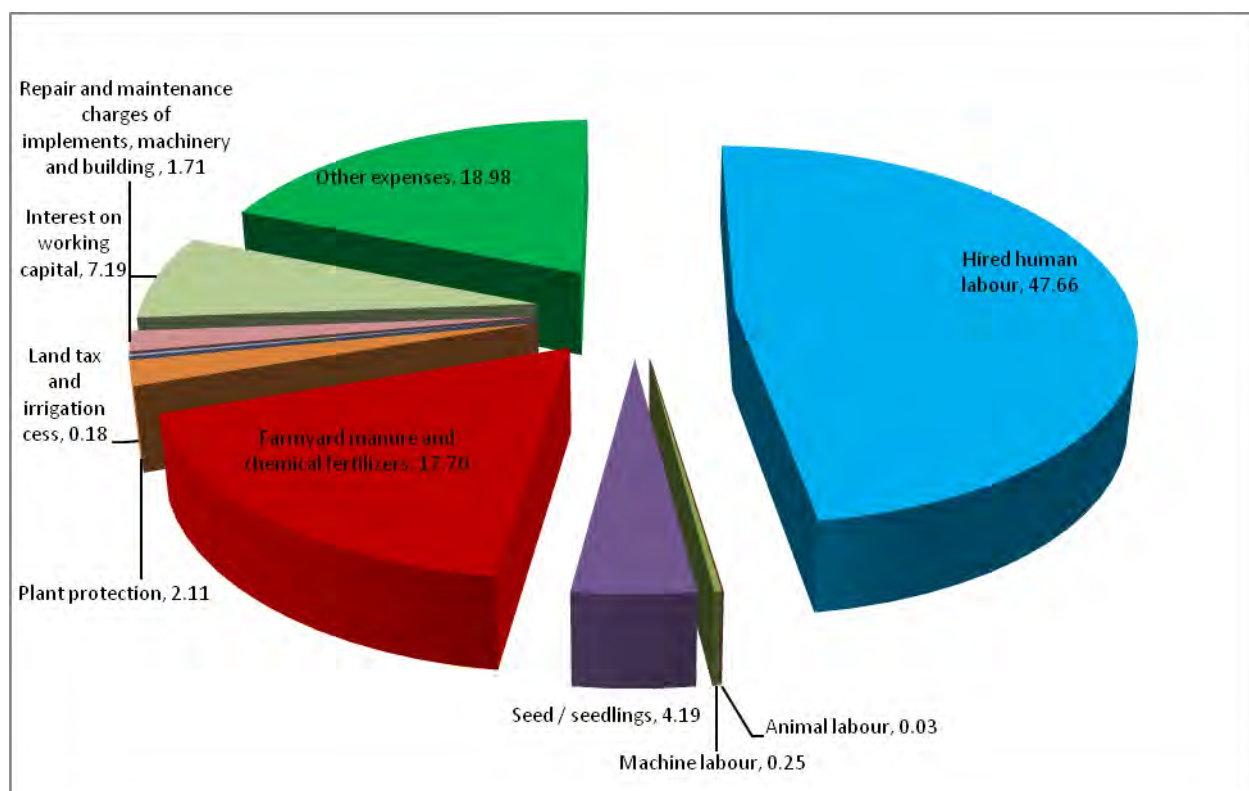
Cost of Cultivation

Cost of cultivation of Cowpea (summer) per hectare is estimated as Rs.122157/- when cost 'A' is considered. Cost incurred for hired human labour is 47.66% of the total cost and farmyard manure and chemical fertilizer is 17.70% of the total cost, but the other expenses share is 18.98%

Table 85: Cost of Cultivation per hectare (in Rs.) of Cowpea (Summer) during 2017-2018

Sl No	Components	Holding size Class			
		Small	Medium	Large	All Size
1	Hired human labour	59920	62979	12747	58216
2	Animal labour	68			38
3	Machine labour	478	112		307
4	Seed / seedlings	5141	5558	2188	5122
5	Farmyard manure and chemical fertilizers	24116	18850	16623	21622
6	Plant protection	3027	2157	1147	2576
7	Land tax and irrigation Cess	285	148		215
8	Repair and maintenance charges of implements, machinery and building	2502	1841		2093
9	Interest on working capital	9275	8966	3270	8788
10	Other expenses	24257	22948	14926	23180
11	Total Cost 'A' (1-10)	129069	123559	50901	122157
12	Interest on fixed capital	7478	4022	3894	5924
13	Cost 'B1' (11+12)	136547	127581	54795	128081
14	Interest on land value	263593	303820	174171	273669
15	Cost 'B' (13+14)	400140	431401	228966	401750
16	Imputed value of household labour	96215	67627	55989	82706
17	Cost 'C' (15+16)	496355	499028	284955	484456

Percentage Distribution of “COST A” per hectare of Cowpea (Summer) during 2017-18



In Cowpea summer cultivation hired male labour participation accounted as **31.05%** 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	31.55	32.28	8.46	31.05
Female	6.18	10.75	2.99	5.96
Total	37.73	43.03	11.45	37.01

Table 87: Cost of cultivation of Cowpea -Summer per hectare (in Rs) during 2015-16, 2016-17 & 2017-18

Concept of cost	Year	Holding Size class			
		Small	Medium	Large	All size
Cost 'A'	2015-2016	101427	127397	98685	111248
	2016-2017	132397	130387	129330	131286
	2017-2018	129069	123559	50901	122157
Cost 'B'	2015-2016	241091	287306	392100	272474
	2016-2017	317380	255951	163262	280697
	2017-2018	400140	431401	228966	401750
Cost 'C'	2015-2016	321328	340537	432109	338656
	2016-2017	408133	308502	180300	349657
	2017-2018	496355	499028	284955	484456

Table 88: Value of Product and by product per hectare (in Rs) of Cowpea Summer during 2017-18

Holding Size Class			
Small	Medium	Large	All Sizes
293388	235107	152436	262241

2.12 Cardamom during 2017-18

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	33	4.86	10.65	0.15
Medium	42	15.27	33.45	0.36
Large	19	25.52	55.90	1.34
Total	94	45.65	100.00	0.49

For the study 94 sample holdings were selected and the total area of crop in the selected area was 45.65 hectare. The average size per holding was 0.49 hectare.

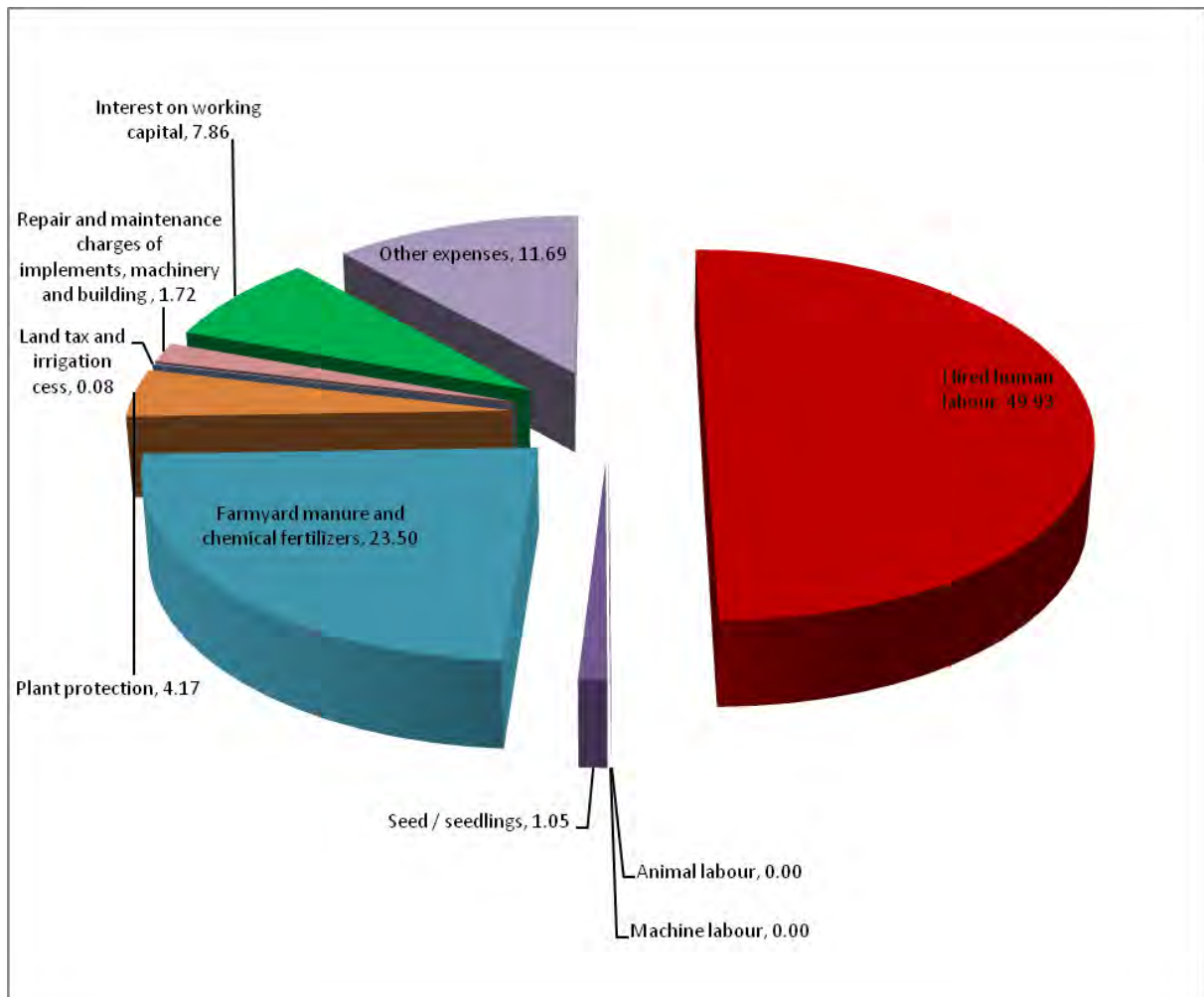
Cost of Cultivation

The different cost components of Cardamom cultivation is given below: Per hectare cost for cultivating cardamom is estimated as Rs 137342/- 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	69242	72437	66136	68575
2	Animal labour				
3	Machine labour				
4	Seed / seedlings	1008	1121	1717	1442
5	Farmyard manure and chemical fertilizers	31760	41958	26579	32276
6	Plant protection	7470	6822	4729	5721
7	Land tax and irrigation Cess	121	105	109	109
8	Repair and maintenance charges of implements, machinery and building	6303	3610	861	2361
9	Interest on working capital	10948	12234	9916	10801
10	Other expenses	16265	17840	14950	16057
11	Total Cost 'A' (1-10)	143117	156127	124997	137342
12	Interest on fixed capital	13534	4094	1615	3713
13	Cost 'B1' (11+12)	156651	160221	126612	141055
14	Interest on land value	159529	208884	67657	124690
15	Cost 'B' (13+14)	316180	369105	194269	265745
16	Imputed value of household labour	53287	38473	15175	27029
17	Cost 'C' (15+16)	369467	407578	209444	292774

Percentage Distribution of “COST A” per hectare of Cardamom during 2017-18



When Cost A is considering, 49.93% comes under hired human labour and 23.50% 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 is very high and it is accounted as 52.55%.

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

Sex	Holding size class			
	Small	Medium	Large	All Sizes
Male	14.88	18.46	25.12	21.22
Female	33.78	37.73	43.45	52.55
Total	48.66	56.19	68.57	73.77

Table: 92 Cost of cultivation of Cardamom per hectare (in Rs) during 2015-16, 2016-17 & 2017-18

Concept of cost	Year	Holding Size class			
		Small	Medium	Large	All size
Cost 'A'	2015-2016	136993	98466	138363	115984
	2016-2017	146271	129584	137788	134526
	2017-2018	143117	156127	124997	137342
Cost 'B'	2015-2016	253364	199407	210245	208470
	2016-2017	289359	232705	224435	239304
	2017-2018	156651	160221	126612	141055
Cost 'C'	2015-2016	287471	222784	223946	229584
	2016-2017	325534	257053	235083	261655
	2017-2018	369467	407578	209444	292774

Value of Out put

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

The estimated value of output per hectare is Rs.459312/-

Holding Size Class			
Small	Medium	Large	All Sizes
492135	465615	449284	459312

A1.1 District wise Area and number of holding under Autumn Paddy during 2017-18

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	20.56	3.62	0.34
2	Kollam	72	27.19	4.79	0.38
3	Pathanamthitta	32	21.11	3.72	0.66
4	Alappuzha	81	68.74	12.11	0.85
5	Kottayam	45	63.26	11.14	1.41
6	Idukki	30	12.26	2.16	0.41
7	Ernakulam	105	76.54	13.48	0.73
8	Thrissur	66	81	14.27	1.23
9	Palakkad	75	86.19	15.18	1.15
10	Malappuram	60	57.9	10.2	0.97
11	Kozhikkode	45	14.79	2.61	0.33
12	Wayanad				
13	Kannur	45	20.45	3.6	0.45
14	Kasaragod	30	17.68	3.11	0.59
	State	746	567.67	100	0.76

A1.2 District wise Area and number of holding under Winter Paddy during 2017-18

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	27.83	3.38	0.46
2	Kollam	75	41.5	5.04	0.55
3	Pathanamthitta	53	70.04	8.5	1.32
4	Alappuzha	90	82.32	9.99	0.91
5	Kottayam	64	71.26	8.65	1.11
6	Idulkki	45	21.73	2.64	0.48
7	Eranakulam	88	59.62	7.23	0.68
8	Thrissur	75	178.4	21.65	2.38
9	Palakkad	75	84.06	10.2	1.12
10	Malappuram	77	100.04	12.14	1.3
11	Kozhikkode	45	19.52	2.37	0.43
12	Wayanad	45	33.8	4.1	0.75
13	Kannur	45	19.73	2.39	0.44
14	Kasaragod	30	14.3	1.74	0.46
	State	867	822.94	100	0.95

A1.3 District wise Area and number of holding under Summer Paddy during 2017-18

Sl No	District	No of selected holdings	Area under the crop in the sample (ha)	Percentage Area	Average Area per holding (ha)
1	Thiruvananthapuram	45	19.67	2.53	0.44
2	Kollam	27	12.77	1.64	0.47
3	Pathanamthitta	60	143.34	18.43	2.39
4	Alappuzha	75	167.7	21.56	2.24
5	Kottayam	60	92.15	11.85	1.54
6	Idukki	37	9.32	1.2	0.25
7	Eranakulam	73	37.54	4.83	0.51
8	Thrissur	60	115.57	14.86	1.93
9	Palakkad	53	56.18	7.22	1.06
10	Malappuram	45	53.19	6.84	1.18
11	Kozhikkode	45	30.18	3.88	0.67
12	Wayanad	45	22.65	2.91	0.5
13	Kannur	8	4.33	0.56	0.54
14	Kasaragod	30	13.15	1.69	0.44
	State	663	777.72	100	1.17

A1.4 District wise Area and number of holding under Coconut during 2017-18

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	23.10	4.61	0.29
2	Kollam	100	21.10	4.21	0.21
3	Pathanamthitta	100	29.20	5.83	0.29
4	Alappuzha	120	45.80	9.14	0.38
5	Kottayam	100	34.30	6.85	0.34
6	Idulkki	80	27.60	5.51	0.35
7	Eranakulam	140	51.40	10.26	0.37
8	Thrissur	100	53.40	10.66	0.53
9	Palakkad	100	67.00	13.37	0.67
10	Malappuram	80	47.90	9.56	0.60
11	Kozhikkode	60	36.90	7.37	0.62
12	Wayanad	60	16.20	3.23	0.27
13	Kannur	60	22.30	4.45	0.37
14	Kasaragod	40	24.80	4.95	0.62
	State	1220	510.57	100	0.41

A1.5 District wise Area and number of holding under Arecanut during 2017-18

Sl No	District	No of selected holdings	Area under the crop in the sample (ha)	Percentage Area	Average Area per holding (ha)
1	Thiruvananthapuram	75	6.52	3.76	0.09
2	Kollam	100	4.55	2.63	0.05
3	Pathanamthitta	100	4.22	2.44	0.04
4	Alappuzha	120	4.89	2.82	0.04
5	Kottayam	100	6.44	3.72	0.06
6	Idukki	80	9.19	5.3	0.11
7	Eranakulam	140	11.15	6.44	0.08
8	Thrissur	100	11	6.35	0.11
9	Palakkad	100	24.72	14.27	0.25
10	Malappuram	80	34.82	20.1	0.44
11	Kozhikkode	60	5.94	3.43	0.1
12	Wayanad	60	17.03	9.83	0.28
13	Kannur	60	9.77	5.64	0.16
14	Kasaragod	40	23.01	13.28	0.58
	State	1215	173.27	100	0.14

A1.6 District wise Area and number of holding under Tapioca during 2017-18

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	11.07	5.93	0.18
2	Kollam	75	10.34	5.54	0.14
3	Pathanamthitta	75	12.63	6.77	0.17
4	Alappuzha	82	10.77	5.77	0.13
5	Kottayam	75	16.49	8.84	0.22
6	Idukki	60	18.69	10.01	0.31
7	Eranakulam	94	19.16	10.27	0.2
8	Thrissur	75	15.45	8.28	0.21
9	Palakkad	75	17.67	9.47	0.24
10	Malappuram	60	23.04	12.35	0.38
11	Kozhikkode	45	7.48	4.01	0.17
12	Wayanad	45	7.94	4.25	0.18
13	Kannur	45	8.44	4.52	0.19
14	Kasaragod	30	7.46	4	0.25
	State	896	186.63	100	0.21

A1.7 District wise Area and number of holding under Banana during 2017-18

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	15.43	6.16	0.26
2	Kollam	75	16.25	6.49	0.22
3	Pathanamthitta	75	14.04	5.61	0.19
4	Alappuzha	68	16.13	6.44	0.24
5	Kottayam	75	19.65	7.85	0.26
6	Idukki	60	19.28	7.7	0.32
7	Eranakulam	92	28.96	11.56	0.31
8	Thrissur	75	23.47	9.37	0.31
9	Palakkad	75	31.74	12.67	0.42
10	Malappuram	60	23.96	9.57	0.4
11	Kozhikkode	45	11.8	4.71	0.26
12	Wayanad	45	14.16	5.65	0.31
13	Kannur	45	8.73	3.49	0.19
14	Kasaragod	30	6.82	2.72	0.23
	State	880	250.42	100	0.28

A1.8 District wise Area and number of holding under Pepper during 2017-18

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	7.98	7.43	0.13
2	Kollam	75	5.2	4.84	0.07
3	Pathanamthitta	75	5.92	5.51	0.08
4	Alappuzha	90	3.65	3.4	0.04
5	Kottayam	75	8.84	8.23	0.12
6	Idukki	60	18.43	17.16	0.31
7	Eranakulam	105	8.33	7.76	0.08
8	Thrissur	75	6.14	5.72	0.08
9	Palakkad	75	9.7	9.03	0.13
10	Malappuram	60	8.18	7.62	0.14
11	Kozhikkode	45	2.98	2.78	0.07
12	Wayanad	45	14.04	13.08	0.31
13	Kannur	45	3.71	3.46	0.08
14	Kasaragod	30	4.28	3.99	0.14
	State	915	107.38	100	0.12

A1.9 District wise Area and number of holding under Ginger during 2017-18

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	2.62	3.55	0.05
2	Kollam	75	3.19	4.32	0.04
3	Pathanamthitta	75	3.62	4.9	0.05
4	Alappuzha	37	1.16	1.57	0.03
5	Kottayam	75	3.13	4.24	0.04
6	Idukki	60	3.61	4.89	0.06
7	Eranakulam	73	6.9	9.34	0.09
8	Thrissur	65	3.86	5.23	0.06
9	Palakkad	75	22.7	30.73	0.3
10	Malappuram	41	4.88	6.61	0.12
11	Kozhikkode	37	5.02	6.8	0.14
12	Wayanad	45	8.28	11.21	0.18
13	Kannur	32	2.45	3.32	0.08
14	Kasaragod	20	2.43	3.29	0.12
	State	768	73.86	100	0.1

A1.10 District wise Area and number of holding under Turmeric during 2017-18

Sl No	District	No of selected holdings	Area under the crop in the sample (ha)	Percentage Area	Average Area per holding (ha)
1	Thiruvananthapuram	51	2	3.39	0.04
2	Kollam	75	2.95	5	0.04
3	Pathanamthitta	59	2.27	3.85	0.04
4	Alappuzha	29	0.79	1.34	0.03
5	Kottayam	75	3.38	5.73	0.05
6	Idukki	60	2.3	3.9	0.04
7	Eranakulam	76	10.8	18.32	0.14
8	Thrissur	70	4.59	7.78	0.07
9	Palakkad	75	10.77	18.27	0.14
10	Malappuram	47	4.83	8.19	0.1
11	Kozhikkode	45	6.25	10.6	0.14
12	Wayanad	45	1.87	3.17	0.04
13	Kannur	45	4.09	6.94	0.09
14	Kasaragod	26	2.08	3.53	0.08
	State	778	58.96	100	0.08

**A1.11 District wise Area and number of holding
under Pineapple during 2017-18**

Sl No	District	No of selected holdings	Area under the crop in the sample (ha)	Percentage Area	Average Area per holding (ha)
1	Thiruvananthapuram	8	1.36	0.32	0.17
2	Kollam	31	3.37	0.8	0.11
3	Pathanamthitta	9	3.11	0.74	0.35
4	Alappuzha	13	0.28	0.07	0.02
5	Kottayam	75	148.18	35.21	1.98
6	Idukki	20	16.32	3.88	0.82
7	Eranakulam	66	95.44	22.68	1.45
8	Thrissur	29	79.64	18.92	2.75
9	Palakkad	12	16.84	4	1.4
10	Malappuram	9	7.27	1.73	0.81
11	Kozhikkode	7	10.25	2.44	1.46
12	Wayanad	1	0.04	0.01	0.04
13	Kannur	29	21.51	5.11	0.74
14	Kasaragod	15	17.3	4.11	1.15
	State	324	420.9	100	1.3

A1.12 District wise Area and number of holding under Bitter Gourd (Autumn) during 2017-18					
Sl No	District	No of selected holdings	Area under the crop in the sample (ha)	Percentage Area	Average Area per holding (ha)
1	Thiruvananthapuram	41	3.17	6.41	0.08
2	Kollam	46	2.33	4.71	0.05
3	Pathanamthitta	23	1.38	2.79	0.06
4	Alappuzha	21	0.83	1.68	0.04
5	Kottayam	40	4.57	9.24	0.11
6	Idukki				
7	Eranakulam	56	8.82	17.83	0.16
8	Thrissur	32	6.19	12.51	0.19
9	Palakkad	50	13.28	26.84	0.27
10	Malappuram	24	4.53	9.16	0.19
11	Kozhikode				
12	Wayanad				
13	Kannur	21	4.28	8.65	0.2
14	Kasaragod	2	0.1	0.2	0.05
	State	356	49.48	100	0.14

A1.13 District wise Area and number of holding under Bitter Gourd (Winter) during 2017-18

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	3.18	6.98	0.08
2	Kollam	35	2.4	5.27	0.07
3	Pathanamthitta	39	2.22	4.87	0.06
4	Alappuzha	31	1.31	2.87	0.04
5	Kottayam	33	5.5	12.07	0.17
6	Idukki	37	5.08	11.15	0.14
7	Eranakulam	32	2.87	6.3	0.09
8	Thrissur	33	3.14	6.89	0.1
9	Palakkad	49	8.82	19.35	0.18
10	Malappuram	23	3.55	7.79	0.15
11	Kozhikode	2	0.08	0.18	0.04
12	Wayanad	16	2.43	5.33	0.15
13	Kannur	30	4.34	9.52	0.14
14	Kasaragod	16	0.66	1.45	0.04
	State	416	45.58	100	0.11

A1.14 District wise Area and number of holding under Bitter Gourd (Summer) during 2017-18					
Sl No	District	No of selected holdings	Area under the crop in the sample (ha)	Percentage Area	Average Area per holding (ha)
1	Thiruvananthapuram	36	2.52	8.21	0.07
2	Kollam	45	2.04	6.65	0.05
3	Pathanamthitta	38	1.53	4.99	0.04
4	Alappuzha	27	1.24	4.04	0.05
5	Kottayam	18	0.84	2.74	0.05
6	Idukki				
7	Eranakulam	26	5.83	19	0.22
8	Thrissur	27	3.03	9.88	0.11
9	Palakkad	19	3.83	12.48	0.2
10	Malappuram	15	1.23	4.01	0.08
11	Kozhikkode	25	1.4	4.56	0.06
12	Wayanad	24	4.35	14.18	0.18
13	Kannur	24	2.04	6.65	0.09
14	Kasaragod	15	0.79	2.57	0.05
	State	339	30.68	100	0.09

A1.15 District wise Area and number of holding under Cowpea (Autumn) during 2017-18

Sl No	District	No of selected holdings	Area under the crop in the sample (ha)	Percentage Area	Average Area per holding (ha)
1	Thiruvananthapuram	30	2.44	5.5	0.08
2	Kollam	50	2.79	6.28	0.06
3	Pathanamthitta	27	1.99	4.48	0.07
4	Alappuzha	34	4.04	9.1	0.12
5	Kottayam	40	5.83	13.13	0.15
6	Idukki	1	0.18	0.41	0.18
7	Eranakulam	57	7.07	15.92	0.12
8	Thrissur	33	4.85	10.92	0.15
9	Palakkad	50	7.18	16.17	0.14
10	Malappuram	30	4.38	9.86	0.15
11	Kozhikkode	5	0.36	0.81	0.07
12	Wayanad	2	0.24	0.54	0.12
13	Kannur	21	3.02	6.8	0.14
14	Kasaragod	1	0.04	0.09	0.04
	State	381	44.4	100	0.12

A1.16 District wise Area and number of holding under Cowpea (Winter) during 2017-18					
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	3.06	6.01	0.08
2	Kollam	40	2.85	5.6	0.07
3	Pathanamthitta	44	2.96	5.82	0.07
4	Alappuzha	47	3.08	6.05	0.07
5	Kottayam	50	6.75	13.27	0.14
6	Idukki	40	3.89	7.65	0.1
7	Eranakulam	38	3.99	7.84	0.11
8	Thrissur	35	3.54	6.96	0.1
9	Palakkad	50	6.51	12.79	0.13
10	Malappuram	30	3.45	6.78	0.12
11	Kozhikkode	8	1.32	2.59	0.17
12	Wayanad	20	3.62	7.11	0.18
13	Kannur	30	4.74	9.32	0.16
14	Kasaragod	20	1.1	2.16	0.06
	State	492	50.88	100	0.1

<u>A1.17 District wise Area and number of holding under Cowpea (Summer) during 2017-18</u>					
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	3.73	8.05	0.09
2	Kollam	50	2.53	5.46	0.05
3	Pathanamthitta	44	3.55	7.66	0.08
4	Alappuzha	45	3.4	7.34	0.08
5	Kottayam	50	8.28	17.88	0.17
6	Idukki				
7	Eranakulam	33	2.34	5.05	0.07
8	Thrissur	30	3.77	8.14	0.13
9	Palakkad	26	1.82	3.93	0.07
10	Malappuram	31	4.23	9.13	0.14
11	Kozhikkode	30	1.55	3.35	0.05
12	Wayanad	30	5.88	12.69	0.2
13	Kannur	21	3.55	7.66	0.17
14	Kasaragod	20	1.68	3.63	0.08
	State	450	46.32	100	0.1

A1.18 District wise Area and number of holding under Cardamom during 2017-18					
Sl No	District	No of selected holdings	Area under the crop in the sample (ha)	Percentage Area	Average Area per holding (ha)
1	Idukki	56	28.08	61.51	0.5
2	Palakkad	12	8.66	18.97	0.72
3	Wayanad	26	8.91	19.52	0.34
	State	94	45.65	100	0.49

A2.1 District wise Cost of Cultivation per hectare (in Rs) of Autumn Paddy during 2017-18						
Sl No	Components	Thiruvannthapuram	Kollam	Pathanmthitta	Alappuzha	Kottayam
1	Hired human labour	62383	36323	41262	26889	20276
2	Animal labour				35	
3	Machine labour	10674		700	8809	
4	Seed / seedlings	2564	6134	3866	2989	2073
5	Farmyard manure and chemical fertilizers	8277	13478	5800	6190	5178
6	Plant protection	368	858	896	2288	3000
7	Land tax and irrigation cess	106	420	129	173	160
8	Repair and maintenance charges of implements, machinery and building	103	1518	77	13	209
9	Interest on working capital	8427	5679	5252	4720	3053
10	Other expenses	6727	14216	16058	9702	21586
11	Total cost 'A' (1-10)	99629	78626	74040	61808	55535
12	Interest on fixed capital	1237	1358	70	83	210
13	Cost 'B1' (11+12)	100866	79984	74110	61891	55745
14	Interest on land value	163533	79708	90314	162236	141761
15	Cost 'B' (13+14)	264399	159692	164424	224127	197506
16	Imputed value of household labour	15540	12195	3035	7168	9818
17	Cost 'C' (15+16)	279939	171887	167459	231295	207324

A2.1 District wise Cost of Cultivation per hectare (in Rs) of Autumn Paddy during 2017-18

Sl No	Components	Idukki	Ernakulam	Thrissur	Palakkad	Malappuram
1	Hired human labour	26007	21612	13793	23320	24694
2	Animal labour				14	65
3	Machine labour	9728	6520	12648	11183	7578
4	Seed / seedlings	1474	2987	3149	2895	2258
5	Farmyard manure and chemical fertilizers	3712	2447	6523	7845	5492
6	Plant protection	31	336	755	705	497
7	Land tax and irrigation cess	20	32	159	406	20
8	Repair and maintenance charges of implements, machinery and building	450	476	36	102	29
9	Interest on working capital	4095	3390	3687	4596	4058
10	Other expenses	2726	4945	9034	2275	6521
11	Total cost 'A' (1-10)	48243	42745	49784	53341	51212
12	Interest on fixed capital	266	1215	291	1665	1683
13	Cost 'B1' (11+12)	48509	43960	50075	55006	52895
14	Interest on land value	250731	228566	99752	112046	169363
15	Cost 'B' (13+14)	299240	272526	149827	167052	222258
16	Imputed value of household labour	15452	5451	3443	6450	4341
17	Cost 'C' (15+16)	314692	277977	153270	173502	226599

A2.1 District wise Cost of Cultivation per hectare (in Rs) of Autumn Paddy during 2017-18

Sl No	Components	Kozhikode	Wayanad	Kannur	Kasargod	State
1	Hired human labour	27891		44570	40436	26144
2	Animal labour	153				17
3	Machine labour	3346		3515	6564	7262
4	Seed / seedlings	2842		2583	1795	2900
5	Farmyard manure and chemical fertilizers	8242		8679	9576	6406
6	Plant protection	47		24	49	1014
7	Land tax and irrigation cess	33		149	63	167
8	Repair and maintenance charges of implements, machinery and building	146			201	212
9	Interest on working capital	4252		5937	5842	4374
10	Other expenses	9494		13399	504	8873
11	Total cost 'A' (1-10)	56446		78856	65030	57369
12	Interest on fixed capital	1724		2128	1652	954
13	Cost 'B1' (11+12)	58170		80984	66682	58323
14	Interest on land value	298048		273680	205291	157314
15	Cost 'B' (13+14)	356218		354664	271973	215638
16	Imputed value of household labour	8257		10297	14760	7250
17	Cost 'C' (15+16)	364475		364960	286733	222887

A2.2 District wise Cost of Cultivation per hectare (in Rs.) of Winter Paddy during 2017-18

Sl No	Components	Thiruvannthapuram	Kollam	Pathanamthitta	Alappuzha	Kottayam
1	Hired human labour	53103	52367	31120	24311	20199
2	Animal labour	36				
3	Machine labour	6119			8978	3675
4	Seed / seedlings	2011	3034	3391	3744	2725
5	Farmyard manure and chemical fertilizers	8714	15101	4765	7128	7086
6	Plant protection	362	1764	357	2181	3727
7	Land tax and irrigation cess	117	278	47	218	210
8	Repair and maintenance charges of implements, machinery and building	215	892	89	3	172
9	Interest on working capital	7035	7227	3963	4634	3741
10	Other expenses	5771	14095	16902	5205	17127
11	Total cost 'A' (1-10)	83483	94758	60634	56402	58662
12	Interest on fixed capital	4134	877	78	48	226
13	Cost 'B1' (11+12)	87617	95635	60712	56450	58888
14	Interest on land value	219857	56862	124654	97300	75332
15	Cost 'B' (13+14)	307474	152497	185366	153750	134220
16	Imputed value of household labour	13544	10261	3725	6600	12857
17	Cost 'C' (15+16)	321018	162758	189091	160350	147077

A2.2 District wise Cost of Cultivation per hectare (in Rs) of Winter Paddy during 2017-18

Sl No	Components	Idukki	Ernakulam	Thrissur	Palakkad	Malappuram
1	Hired human labour	24910	22703	16131	25227	22634
2	Animal labour					
3	Machine labour	6454	9709	14574	13116	11148
4	Seed / seedlings	2143	2230	4240	2193	1788
5	Farmyard manure and chemical fertilizers	6438	4022	5742	6805	5429
6	Plant protection	144	967	600	1612	520
7	Land tax and irrigation cess	21	33	210	224	19
8	Repair and maintenance charges of implements, machinery and building	840	215	5	371	47
9	Interest on working capital	4009	3963	4129	4895	4152
10	Other expenses	4819	5656	14657	6346	6376
11	Total cost 'A' (1-10)	49778	49498	60288	60789	52113
12	Interest on fixed capital	576	2196	59	3519	1785
13	Cost 'B1' (11+12)	50354	51694	60347	64308	53898
14	Interest on land value	151927	332860	219307	114396	234097
15	Cost 'B' (13+14)	202281	384554	279654	178704	287995
16	Imputed value of household labour	19212	4743	4582	7345	6666
17	Cost 'C' (15+16)	221493	389297	284236	186049	294661

A2.2 District wise Cost of Cultivation per hectare (in Rs) of Winter Paddy during 2017-18

Sl No	Components	Kozhikode	Wayanad	Kannur	Kasargod	State
1	Hired human labour	31536	28086	54740	29488	26082
2	Animal labour					1
3	Machine labour	1844	17319	2151	8692	9096
4	Seed / seedlings	2770	3590	1978	1836	2987
5	Farmyard manure and chemical fertilizers	7452	13275	8685	10670	6955
6	Plant protection	146	629	154	52	1137
7	Land tax and irrigation cess	57	193	110	89	149
8	Repair and maintenance charges of implements, machinery and building	112	1535		633	234
9	Interest on working capital	4375	6290	6771	5074	4626
10	Other expenses	14020	7087	11724	1264	10396
11	Total cost 'A' (1-10)	62312	78004	86313	57798	61663
12	Interest on fixed capital	130	1153	3171	5647	1201
13	Cost 'B1' (11+12)	62442	79157	89484	63445	62864
14	Interest on land value	162233	62667	170675	157972	165995
15	Cost 'B' (13+14)	224675	141824	260159	221417	228859
16	Imputed value of household labour	6338	12457	8552	15121	7590
17	Cost 'C' (15+16)	231013	154281	268711	236538	236449

A2.3 District wise Cost of Cultivation per hectare (in Rs.) of Summer Paddy during 2017-18

Sl No	Components	Thiruvannthapuram	Kollam	Pathanamthitta	Alappuzha	Kottayam
1	Hired human labour	51286	59179	20014	14270	28539
2	Animal labour					115
3	Machine labour	18148			7584	572
4	Seed / seedlings	2574	2892	2876	4504	2495
5	Farmyard manure and chemical fertilizers	7713	14268	4825	9976	5771
6	Plant protection	1582	403	176	1905	3257
7	Land tax and irrigation cess	9	382	12	199	251
8	Repair and maintenance charges of implements, machinery and building	3	939	28	18	191
9	Interest on working capital	8130	7674	2789	3824	4075
10	Other expenses	4245	16478	9837	8161	14180
11	Total cost 'A' (1-10)	93690	102215	40557	50441	59446
12	Interest on fixed capital	68	1864	22	61	166
13	Cost 'B1' (11+12)	93758	104079	40579	50502	59612
14	Interest on land value	366763	102174	188044	94756	248887
15	Cost 'B' (13+14)	460521	206253	228623	145258	308499
16	Imputed value of household labour	15692	10376	2701	2669	7843
17	Cost 'C' (15+16)	476213	216629	231324	147927	316342

A2.3 District wise Cost of Cultivation per hectare (in Rs) of Summer Paddy during 2017-18

Sl No	Components	Idukki	Ernakulam	Thrissur	Palakkad	Malappuram
1	Hired human labour	41937	17508	18137	23105	30780
2	Animal labour					
3	Machine labour	4480	8721	14881	12695	16335
4	Seed / seedlings	3090	2378	3157	1891	2007
5	Farmyard manure and chemical fertilizers	8588	5939	4412	8098	5955
6	Plant protection	562	667	450	1301	1062
7	Land tax and irrigation cess	11	75	135	272	64
8	Repair and maintenance charges of implements, machinery and building	354	88	25	27	653
9	Interest on working capital	5866	3521	4104	4709	5614
10	Other expenses	1926	5816	11417	4633	11501
11	Total cost 'A' (1-10)	66814	44713	56718	56731	73971
12	Interest on fixed capital	783	802	118	3646	7575
13	Cost 'B1' (11+12)	67597	45515	56836	60377	81546
14	Interest on land value	102920	294515	58648	96536	191220
15	Cost 'B' (13+14)	170517	340030	115484	156913	272766
16	Imputed value of household labour	24970	8119	3127	6249	7611
17	Cost 'C' (15+16)	195487	348149	118611	163162	280377

A2.3 District wise Cost of Cultivation per hectare (in Rs) of Summer Paddy during 2017-18

Sl No	Components	Kozhikode	Wayanad	Kannur	Kasargod	State
1	Hired human labour	43696	37345	31806	32227	23738
2	Animal labour					14
3	Machine labour	7736	12402	658	12588	7760
4	Seed / seedlings	2408	3348	2404	2202	3077
5	Farmyard manure and chemical fertilizers	4941	17001	25903	7796	7228
6	Plant protection	145	590		103	1180
7	Land tax and irrigation cess	29	150	212	97	138
8	Repair and maintenance charges of implements, machinery and building	23	2752	462	1567	216
9	Interest on working capital	5893	7069	6077	5492	4300
10	Other expenses	10787	9642	1594	977	9550
11	Total cost 'A' (1-10)	75658	90299	69116	63049	57200
12	Interest on fixed capital	148	425	4587	7882	1100
13	Cost 'B1' (11+12)	75806	90724	73703	70931	58300
14	Interest on land value	151847	83785	115294	98595	150387
15	Cost 'B' (13+14)	227653	174509	188997	169526	208687
16	Imputed value of household labour	5292	10832	23246	23808	5751
17	Cost 'C' (15+16)	232945	185341	212243	193334	214438

A2.4 District wise Cost of Cultivation per hectare (in Rs.) of Coconut during 2017-18

Sl No	Components	Thiruvananthapuram	Kollam	Pathanamthitta	Alappuzha	Kottayam
1	Hired human labour	78482	31990	23958	41995	46395
2	Animal labour					
3	Machine labour					610
4	Seed / seedlings	738	455	1894	545	2881
5	Farmyard manure and chemical fertilizers	8764	21970	16308	11805	14865
6	Plant protection					
7	Land tax and irrigation cess	175	316	174	246	270
8	Repair and maintenance charges of implements, machinery and building	162	570	934	175	256
9	Interest on working capital	8798	5441	4216	5434	6475
10	Other expenses	3387	3975	1882	1546	2581
11	Total cost 'A' (1-10)	100506	64717	49366	61746	74333
12	Interest on fixed capital	333	380	360	470	475
13	Cost 'B1' (11+12)	100839	65097	49726	62216	74808
14	Interest on land value	413523	376128	493255	621945	1147914
15	Cost 'B' (13+14)	514362	441225	542981	684161	1222722
16	Imputed value of household labour	22318	13127	6402	4892	6492
17	Cost 'C' (15+16)	536680	454352	549383	689053	1229214

A 2.4 District wise Cost of Cultivation per hectare (in Rs) of Coconut during 2017-18

Sl No	Components	Idukki	Ernakulam	Thrissur	Palakkad	Malappuram
1	Hired human labour	32971	30202	54213	36593	53050
2	Animal labour				125	
3	Machine labour				1798	764
4	Seed / seedlings	764	826	446		89
5	Farmyard manure and chemical fertilizers	10867	11542	17212	10826	19432
6	Plant protection					
7	Land tax and irrigation cess	50	188	353	347	489
8	Repair and maintenance charges of implements, machinery and building	277	125	161	171	172
9	Interest on working capital	4460	4257	7187	4934	7334
10	Other expenses	1837	6086	3486	3552	4428
11	Total cost 'A' (1-10)	51226	53226	83058	58346	85758
12	Interest on fixed capital	971	1943	3018	5619	3800
13	Cost 'B1' (11+12)	52197	55169	86076	63965	89558
14	Interest on land value	232185	1362119	757669	151589	685634
15	Cost 'B' (13+14)	284382	1417288	843745	215554	775192
16	Imputed value of household labour	9725	11823	9555	6194	12517
17	Cost 'C' (15+16)	294107	1429111	853300	221748	787709

A 2.4 District wise Cost of Cultivation per hectare (in Rs) of coconut during 2017-18

Sl No	Components	Kozhikode	Wayanad	Kannur	Kasargod	State
1	Hired human labour	29367	39204	33223	49014	42168
2	Animal labour					17
3	Machine labour	173			236	401
4	Seed / seedlings	427			908	588
5	Farmyard manure and chemical fertilizers	9550	28451	17565	21013	15181
6	Plant protection				135	9
7	Land tax and irrigation cess	117	178	159	616	295
8	Repair and maintenance charges of implements, machinery and building	10	4407		1575	436
9	Interest on working capital	3952	6765	5079	7131	5836
10	Other expenses	1103	976	9371	2745	3503
11	Total cost 'A' (1-10)	44699	79981	65397	83373	68434
12	Interest on fixed capital	114	852	2494	6612	2449
13	Cost 'B1' (11+12)	44813	80833	67891	89985	70883
14	Interest on land value	204963	166664	443814	212374	537285
15	Cost 'B' (13+14)	249776	247497	511705	302359	608168
16	Imputed value of household labour	4254	14289	11373	8050	9612
17	Cost 'C' (15+16)	254030	261786	523078	310409	617780

A 2.5 District wise Cost of Cultivation per hectare (in Rs.) of Arecanut during 2017-18

Sl No	Components	Thiruvananthapuram	Kollam	Pathanamthitta	Alappuzha	Kottayam
1	Hired human labour	50939	40774	30319	9341	27008
2	Animal labour					
3	Machine labour					
4	Seed / seedlings		109	265	149	8456
5	Farmyard manure and chemical fertilizers	9727	11320	5827	4263	18995
6	Plant protection					
7	Land tax and irrigation cess	53	312	165	182	219
8	Repair and maintenance charges of implements, machinery and building	28	2525	3582	102	804
9	Interest on working capital	6067	5220	3641	1375	5446
10	Other expenses	3033	1218	983	1512	2174
11	Total cost 'A' (1-10)	69847	61478	44782	16924	63102
12	Interest on fixed capital	381	1043	1438	986	1109
13	Cost 'B1' (11+12)	70228	62521	46220	17910	64211
14	Interest on land value	290847	331734	507676	575152	851409
15	Cost 'B' (13+14)	361075	394255	553896	593062	915620
16	Imputed value of household labour	25517	8750	11064	31703	14557
17	Cost 'C' (15+16)	386592	403005	564960	624765	930177

A 2.5 District wise Cost of Cultivation per hectare (in Rs) of Arecanut during 2017-18

Sl No	Components	Idukki	Ernakulam	Thrissur	Palakkad	Malappuram
1	Hired human labour	20590	44448	81186	36532	44531
2	Animal labour					
3	Machine labour				1302	244
4	Seed / seedlings	163	5298	1731		230
5	Farmyard manure and chemical fertilizers	8460	10458	23345	23357	25047
6	Plant protection					
7	Land tax and irrigation cess	56	228	484	241	476
8	Repair and maintenance charges of implements, machinery and building	179	302	1550	867	569
9	Interest on working capital	2921	6021	10626	6119	7005
10	Other expenses	1824	5352	2489	2791	5195
11	Total cost 'A' (1-10)	34193	72107	121411	71209	83297
12	Interest on fixed capital	583	5471	13876	8777	6833
13	Cost 'B1' (11+12)	34776	77578	135287	79986	90130
14	Interest on land value	234945	1081908	443415	148932	653695
15	Cost 'B' (13+14)	269721	1159486	578702	228918	743825
16	Imputed value of household labour	12264	21383	32982	15120	13877
17	Cost 'C' (15+16)	281985	1180869	611684	244038	757702

A 2.5 District wise Cost of Cultivation per hectare (in Rs) of Arecanut during 2017-18

Sl No	Components	Kozhikode	Wayanad	Kannur	Kasargod	State
1	Hired human labour	44640	53409	51184	51902	44822
2	Animal labour					
3	Machine labour	126			1259	406
4	Seed / seedlings	617				855
5	Farmyard manure and chemical fertilizers	15227	13643	22263	81905	26598
6	Plant protection				355	47
7	Land tax and irrigation cess	125	179	117	1127	384
8	Repair and maintenance charges of implements, machinery and building	47	4399		2013	1254
9	Interest on working capital	6061	6705	7345	13542	7273
10	Other expenses	1616	2363	4411	2908	3258
11	Total cost 'A' (1-10)	68459	80698	85320	155011	84897
12	Interest on fixed capital	306	1106	8845	11593	6192
13	Cost 'B1' (11+12)	68765	81804	94165	166604	91089
14	Interest on land value	168054	138302	875592	170421	434148
15	Cost 'B' (13+14)	236819	220106	969757	337025	525237
16	Imputed value of household labour	14981	9859	16690	17001	16645
17	Cost 'C' (15+16)	251800	229965	986447	354026	541882

A 2.6 District wise Cost of Cultivation per hectare (in Rs.) of Tapioca during 2017-18

Sl No	Components	Thiruvananthapuram	Kollam	Pathanamthitta	Alappuzha	Kottayam
1	Hired human labour	122552	68922	55387	45924	50725
2	Animal labour					
3	Machine labour				3842	2768
4	Seed / seedlings	2955	2387	3759	8613	3905
5	Farmyard manure and chemical fertilizers	16440	17608	9483	42109	40138
6	Plant protection	121	1001		91	
7	Land tax and irrigation cess	44	218	88	109	102
8	Repair and maintenance charges of implements, machinery and building	255	1587	1131	450	292
9	Interest on working capital	14207	8992	6863	10058	9754
10	Other expenses	8815	3584	10556	10721	9217
11	Total cost 'A' (1-10)	165389	104299	87267	121917	116901
12	Interest on fixed capital	515	1977	394	654	408
13	Cost 'B1' (11+12)	165904	106276	87661	122571	117309
14	Interest on land value	314654	425242	321390	413056	889059
15	Cost 'B' (13+14)	480558	531518	409051	535627	1006368
16	Imputed value of household labour	71223	23967	27473	40233	27019
17	Cost 'C' (15+16)	551781	555485	436524	575860	1033387

A 2.6 District wise Cost of Cultivation per hectare (in Rs) of Tapioca during 2017-18

Sl No	Components	Idukki	Ernakulam	Thrissur	Palakkad	Malappuram
1	Hired human labour	38234	54977	42028	64237	40142
2	Animal labour					
3	Machine labour		1831	3219	5461	1033
4	Seed / seedlings	2532	11895	10237	9478	3217
5	Farmyard manure and chemical fertilizers	16222	19094	27808	15373	21930
6	Plant protection	162	252	726	449	276
7	Land tax and irrigation cess	65	93	270	202	46
8	Repair and maintenance charges of implements, machinery and building	123	434	213	160	482
9	Interest on working capital	5715	8805	8402	9500	6660
10	Other expenses	7016	15082	12491	11933	15181
11	Total cost 'A' (1-10)	70069	112463	105394	116793	88967
12	Interest on fixed capital	302	2217	2661	4270	5322
13	Cost 'B1' (11+12)	70371	114680	108055	121063	94289
14	Interest on land value	188230	1970627	676239	156329	334789
15	Cost 'B' (13+14)	258601	2085307	784294	277392	429078
16	Imputed value of household labour	31077	21809	38004	20848	24270
17	Cost 'C' (15+16)	289678	2107116	822298	298240	453348

A 2.6 District wise Cost of Cultivation per hectare (in Rs) of Tapioca during 2017-18

Sl No	Components	Kozhikode	Wayanad	Kannur	Kasargod	State
1	Hired human labour	35911	52045	58674	27537	53365
2	Animal labour					
3	Machine labour	575			6783	1859
4	Seed / seedlings	21043	3379	20835	3823	7102
5	Farmyard manure and chemical fertilizers	14016	6474	19737	14444	20928
6	Plant protection		3336	856	1083	471
7	Land tax and irrigation cess	54	132	171	177	122
8	Repair and maintenance charges of implements, machinery and building	49	5879		212	641
9	Interest on working capital	7154	6523	10010	5367	8372
10	Other expenses	3130	12508	6511	2294	10201
11	Total cost 'A' (1-10)	81932	90276	116794	61720	103061
12	Interest on fixed capital	225	814	6544	1037	2161
13	Cost 'B1' (11+12)	82157	91090	123338	62757	105222
14	Interest on land value	150801	192470	391053	199525	539543
15	Cost 'B' (13+14)	232958	283560	514391	262282	644765
16	Imputed value of household labour	25419	37031	66223	30218	32384
17	Cost 'C' (15+16)	258377	320591	580614	292500	677149

A2.7 District wise Cost of Cultivation per hectare (in Rs.) of Banana during 2017-18

Sl No	Components	Thiruvananthapuram	Kollam	Pathanamthitta	Alappuzha	Kottayam
1	Hired human labour	106185	130177	63053	54270	55046
2	Animal labour					
3	Machine labour				3645	1741
4	Seed / seedlings	21085	29060	24472	25751	16057
5	Farmyard manure and chemical fertilizers	48610	48457	22559	44254	52190
6	Plant protection	725	296	799	1255	1750
7	Land tax and irrigation cess	26	162	84	141	168
8	Repair and maintenance charges of implements, machinery and building	132	1199	937	177	228
9	Interest on working capital	17660	20799	11088	12917	12678
10	Other expenses	16855	3206	20916	22858	6293
11	Total cost 'A' (1-10)	211278	233356	143908	165268	146151
12	Interest on fixed capital	391	664	352	566	389
13	Cost 'B1' (11+12)	211669	234020	144260	165834	146540
14	Interest on land value	281511	573656	350855	332117	887388
15	Cost 'B' (13+14)	493180	807676	495115	497951	1033928
16	Imputed value of household labour	71150	27805	30055	36435	28348
17	Cost 'C' (15+16)	564330	835481	525170	534386	1062276

A 2.7 District wise Cost of Cultivation per hectare (in Rs) of Banana during 2017-18

Sl No	Components	Idukki	Ernakulam	Thrissur	Palakkad	Malappuram
1	Hired human labour	47785	68061	79585	77449	70347
2	Animal labour					
3	Machine labour		1739	7667	6438	2052
4	Seed / seedlings	26217	23280	36118	23964	20448
5	Farmyard manure and chemical fertilizers	28840	34273	54137	45426	37348
6	Plant protection	1460	1328	4922	4600	1864
7	Land tax and irrigation cess	47	59	313	192	31
8	Repair and maintenance charges of implements, machinery and building	343	241	179	168	714
9	Interest on working capital	10430	12868	18243	15788	13206
10	Other expenses	20584	35956	75578	25681	30246
11	Total cost 'A' (1-10)	135706	177805	276742	199706	176256
12	Interest on fixed capital	1651	2546	4568	7911	10130
13	Cost 'B1' (11+12)	137357	180351	281310	207617	186386
14	Interest on land value	207805	2482790	634103	96051	306113
15	Cost 'B' (13+14)	345162	2663141	915413	303668	492499
16	Imputed value of household labour	29761	21141	39521	30656	39752
17	Cost 'C' (15+16)	374923	2684282	954934	334324	532251

A 2.7 District wise Cost of Cultivation per hectare (in Rs) of Banana during 2017-18

Sl No	Components	Kozhikode	Wayanad	Kannur	Kasargod	State
1	Hired human labour	60131	92056	69334	45893	73603
2	Animal labour					
3	Machine labour	2928			2475	2509
4	Seed / seedlings	27559	23892	27409	23776	24818
5	Farmyard manure and chemical fertilizers	39762	27959	25508	46520	40549
6	Plant protection	746	9416	334	3434	2488
7	Land tax and irrigation cess	9	195	126	1534	164
8	Repair and maintenance charges of implements, machinery and building	234	4353		2460	652
9	Interest on working capital	13113	15332	12258	12210	14397
10	Other expenses	45717	12852	13525	6845	26901
11	Total cost 'A' (1-10)	190199	186055	148494	145147	186081
12	Interest on fixed capital	1525	959	6690	20738	3899
13	Cost 'B1' (11+12)	191724	187014	155184	165885	189980
14	Interest on land value	155750	92002	471609	177322	603115
15	Cost 'B' (13+14)	347474	279016	626793	343207	793095
16	Imputed value of household labour	40593	50914	63081	98967	38260
17	Cost 'C' (15+16)	388067	329930	689874	442174	831355

A 2.8 District wise Cost of Cultivation per hectare (in Rs.) of Pepper during 2017-18

Sl No	Components	Thiruvananthapuram	Kollam	Pathanamthitta	Alappuzha	Kottayam
1	Hired human labour	67040	60526	47781	34103	37659
2	Animal labour					
3	Machine labour					
4	Seed / seedlings	439	190	685	248	2615
5	Farmyard manure and chemical fertilizers	5260	27236	8204	28680	22495
6	Plant protection		649			1844
7	Land tax and irrigation cess	94	298	209	270	306
8	Repair and maintenance charges of implements, machinery and building	203	5421	2319	1631	519
9	Interest on working capital	7274	8860	5667	6303	6461
10	Other expenses	3561	3090	4673	5468	1890
11	Total cost 'A' (1-10)	83871	106270	69538	76703	73789
12	Interest on fixed capital	716	5501	822	3107	549
13	Cost 'B1' (11+12)	84587	111771	70360	79810	74338
14	Interest on land value	535470	498151	440584	471847	947799
15	Cost 'B' (13+14)	620057	609922	510944	551657	1022137
16	Imputed value of household labour	25562	20602	17612	84007	41638
17	Cost 'C' (15+16)	645619	630524	528556	635664	1063775

A2.8 District wise Cost of Cultivation per hectare (in Rs) of pepper during 2017-18

Sl No	Components	Idukki	Ernakulam	Thrissur	Palakkad	Malappuram
1	Hired human labour	36320	51003	56344	46648	46318
2	Animal labour					
3	Machine labour				1144	587
4	Seed / seedlings	4495	1168	562		1278
5	Farmyard manure and chemical fertilizers	15011	20486	22024	16479	12331
6	Plant protection		403	2533	1083	1377
7	Land tax and irrigation cess	87	259	280	263	464
8	Repair and maintenance charges of implements, machinery and building	182	236	488	439	1524
9	Interest on working capital	5583	7306	8146	6535	6189
10	Other expenses	2088	2940	4511	2387	1958
11	Total cost 'A' (1-10)	63766	83801	94888	74978	72026
12	Interest on fixed capital	750	8473	13394	8367	16438
13	Cost 'B1' (11+12)	64516	92274	108282	83345	88464
14	Interest on land value	177835	1071008	113746	219413	621063
15	Cost 'B' (13+14)	242351	1163282	124574	302758	709527
16	Imputed value of household labour	17371	25115	53214	23939	36212
17	Cost 'C' (15+16)	259722	1188397	129895	326697	745739

A2.8 District wise Cost of Cultivation per hectare (in Rs) of Pepper during 2017-18

Sl No	Components	Kozhikode	Wayanad	Kannur	Kasargod	State
1	Hired human labour	44609	33843	45342	26321	44240
2	Animal labour					
3	Machine labour		641		257	242
4	Seed / seedlings	1971	6669		128	2226
5	Farmyard manure and chemical fertilizers	24626	18880	35816	32217	18517
6	Plant protection	151	461		37	628
7	Land tax and irrigation cess	142	198	113	482	230
8	Repair and maintenance charges of implements, machinery and building	72	2730		5336	1308
9	Interest on working capital	7136	6049	8116	5896	6585
10	Other expenses	1607	1066	2381	1097	2534
11	Total cost 'A' (1-10)	80314	70537	91768	71771	76510
12	Interest on fixed capital	496	877	13224	33884	6011
13	Cost 'B1' (11+12)	80810	71414	104992	105655	82521
14	Interest on land value	165728	135636	649532	197221	480684
15	Cost 'B' (13+14)	246538	207050	754524	302876	563205
16	Imputed value of household labour	22820	22976	34660	29647	29060
17	Cost 'C' (15+16)	269358	230026	789184	332523	592265

A 2.9 District wise Cost of Cultivation per hectare (in Rs.) of Ginger during 2017-18						
Sl No	Components	Thiruvananthapuram	Kollam	Pathanamthitta	Alappuzha	Kottayam
1	Hired human labour	128130	100444	60829	148985	24523
2	Animal labour					
3	Machine labour					
4	Seed / seedlings	46786	55558	56755	31336	50694
5	Farmyard manure and chemical fertilizers	25054	29478	11286	34129	21087
6	Plant protection	153	1644	193	131	
7	Land tax and irrigation cess	67	278	140	87	212
8	Repair and maintenance charges of implements, machinery and building	531	4095	3686	516	1321
9	Interest on working capital	20012	18712	12906	21458	9630
10	Other expenses	14179	4978	5688	316	2397
11	Total cost 'A' (1-10)	234912	215187	151483	236958	109864
12	Interest on fixed capital	1453	1422	1218	1479	2178
13	Cost 'B1' (11+12)	236365	216609	152701	238437	112042
14	Interest on land value	264558	474815	435754	529803	764375
15	Cost 'B' (13+14)	500923	691424	588455	768240	876417
16	Imputed value of household labour	91218	38382	30221	116718	80691
17	Cost 'C' (15+16)	592141	729806	618676	884958	957108

A2.9 District wise Cost of Cultivation per hectare (in Rs) of Ginger during 2017-18

Sl No	Components	Idukki	Ernakulam	Thrissur	Palakkad	Malappuram
1	Hired human labour	37818	31029	75678	131808	49374
2	Animal labour					
3	Machine labour		4606	518	9726	1444
4	Seed / seedlings	42980	61615	23883	65339	20111
5	Farmyard manure and chemical fertilizers	15943	25827	24045	32443	25746
6	Plant protection	215	610	759	19688	648
7	Land tax and irrigation cess	39	132	365	131	304
8	Repair and maintenance charges of implements, machinery and building	815	267	123	249	394
9	Interest on working capital	9696	12369	12488	25900	9732
10	Other expenses	2189	30580	14502	48655	9951
11	Total cost 'A' (1-10)	109695	167035	152361	333939	117704
12	Interest on fixed capital	2250	6924	1775	4698	1252
13	Cost 'B1' (11+12)	111945	173959	154136	338637	118956
14	Interest on land value	270423	837724	402226	103437	406037
15	Cost 'B' (13+14)	382368	1011683	556362	442074	524993
16	Imputed value of household labour	52860	27132	66098	26054	36933
17	Cost 'C' (15+16)	435228	1038815	622460	468128	561926

A2.9 District wise Cost of Cultivation per hectare (in Rs) of Ginger during 2017-18

Sl No	Components	Kozhikode	Wayanad	Kannur	Kasargod	State
1	Hired human labour	50295	166384	60898	45543	93321
2	Animal labour					
3	Machine labour				6255	3748
4	Seed / seedlings	57390	104127	29027	57629	58433
5	Farmyard manure and chemical fertilizers	19712	74157	25814	46565	32312
6	Plant protection	120	3292			6667
7	Land tax and irrigation cess	32	203	205	128	161
8	Repair and maintenance charges of implements, machinery and building	92	5316		343	1228
9	Interest on working capital	12752	34796	11574	15599	19448
10	Other expenses	8812	20319	1638	3969	23502
11	Total cost 'A' (1-10)	149205	408594	129156	176031	238820
12	Interest on fixed capital	368	1338	19960	3255	3609
13	Cost 'B1' (11+12)	149573	409932	149116	179286	242429
14	Interest on land value	114439	229651	237320	220654	311778
15	Cost 'B' (13+14)	264012	639583	386436	399940	554207
16	Imputed value of household labour	39724	57758	50517	49361	43127
17	Cost 'C' (15+16)	303736	697341	436953	449301	597334

A 2.10 District wise Cost of Cultivation per hectare (in Rs.) of Turmeric during 2017-18

Sl No	Components	Thiruvananthapuram	Kollam	Pathanamthitta	Alappuzha	Kottayam
1	Hired human labour	140109	132144	58670	82233	41265
2	Animal labour					
3	Machine labour					
4	Seed / seedlings	16804	24827	10839	15882	47011
5	Farmyard manure and chemical fertilizers	34264	16207	11868	34571	17002
6	Plant protection		170	132	290	
7	Land tax and irrigation cess	139	290	219	165	274
8	Repair and maintenance charges of implements, machinery and building	233	4665	4334	189	1235
9	Interest on working capital	19118	17335	8151	13298	10528
10	Other expenses	9028	3325	11821	4997	6497
11	Total cost 'A' (1-10)	219695	198963	106034	151625	123812
12	Interest on fixed capital	1633	4097	1564	2185	2207
13	Cost 'B1' (11+12)	221328	203060	107598	153810	126019
14	Interest on land value	220491	464973	418180	630240	1147179
15	Cost 'B' (13+14)	441819	668033	525778	784050	1273198
16	Imputed value of household labour	103802	39928	37185	104416	83799
17	Cost 'C' (15+16)	545621	707961	562963	888466	1356997

A2.10 District wise Cost of Cultivation per hectare (in Rs) of Turmeric during 2017-18

Sl No	Components	Idukki	Ernakulam	Thrissur	Palakkad	Malappuram
1	Hired human labour	27854	29923	55186	102685	40223
2	Animal labour					
3	Machine labour		1454	632	4872	1616
4	Seed / seedlings	33341	30574	15168	56413	10596
5	Farmyard manure and chemical fertilizers	15524	23309	17359	16366	18716
6	Plant protection		440	321	2374	
7	Land tax and irrigation cess	36	75	339	206	386
8	Repair and maintenance charges of implements, machinery and building	523	144	138	339	1004
9	Interest on working capital	7672	8569	8866	18271	7115
10	Other expenses	1988	22711	9027	18470	3512
11	Total cost 'A' (1-10)	86938	117199	107036	219996	83168
12	Interest on fixed capital	923	2439	1788	9306	4154
13	Cost 'B1' (11+12)	87861	119638	108824	229302	87322
14	Interest on land value	228756	511990	841683	110083	383552
15	Cost 'B' (13+14)	316617	631628	950507	339385	470874
16	Imputed value of household labour	64637	17700	57212	34804	38090
17	Cost 'C' (15+16)	381254	649328	1007719	374189	508964

A2.10 District wise Cost of Cultivation per hectare (in Rs) of Turmeric during 2016-17

Sl No	Components	Kozhikode	Wayanad	Kannur	Kasargod	State
1	Hired human labour	16667	58136	28931	40392	57030
2	Animal labour					
3	Machine labour	264			2744	1462
4	Seed / seedlings	29045	27748	11735	57241	31179
5	Farmyard manure and chemical fertilizers	27692	47129	27357	34779	22172
6	Plant protection			68		561
7	Land tax and irrigation cess	20	305	196	211	189
8	Repair and maintenance charges of implements, machinery and building	77	15594		560	1206
9	Interest on working capital	7367	13301	6809	13516	11240
10	Other expenses	2842	1771	23099	3371	12045
11	Total cost 'A' (1-10)	83974	163984	98195	152814	137084
12	Interest on fixed capital	231	3333	14992	3695	4439
13	Cost 'B1' (11+12)	84205	167317	113187	156509	141523
14	Interest on land value	131195	219800	504652	382540	410227
15	Cost 'B' (13+14)	215400	387117	617839	539049	551750
16	Imputed value of household labour	39012	92619	54458	60005	45816
17	Cost 'C' (15+16)	254412	479736	672297	599054	597567

A 2.11 District wise Cost of Cultivation per hectare (in Rs.) of Pineapple during 2017-18

Sl No	Components	Thiruvananthapuram	Kollam	Pathanamthitta	Alappuzha	Kottayam
1	Hired human labour	99139	82283	27819	18584	42607
2	Animal labour					130
3	Machine labour					5928
4	Seed / seedlings	129192	54595	30746	40903	59125
5	Farmyard manure and chemical fertilizers	14378	24967	8985	2851	26080
6	Plant protection					2730
7	Land tax and irrigation cess	26	306	10	462	8
8	Repair and maintenance charges of implements, machinery and building		2316	127		37
9	Interest on working capital	24271	16185	6755	6234	13660
10	Other expenses	19325	5625	14508	2714	25373
11	Total cost 'A' (1-10)	286331	186277	88950	71748	175678
12	Interest on fixed capital	264	763	108	1543	64
13	Cost 'B1' (11+12)	286595	187040	89058	73291	175742
14	Interest on land value	248936	466034	239884	630732	466285
15	Cost 'B' (13+14)	535531	653074	328942	704023	642027
16	Imputed value of household labour	38208	12910	8917	25582	4491
17	Cost 'C' (15+16)	573739	665984	337859	729605	646518

A2.11 District wise Cost of Cultivation per hectare (in Rs) of Pine apple during 2017-18

Sl No	Components	Idukki	Ernakulam	Thrissur	Palakkad	Malappuram
1	Hired human labour	42885	39933	39277	44847	53103
2	Animal labour					
3	Machine labour		6569	12360	13046	
4	Seed / seedlings	16254	105780	88388	40476	117590
5	Farmyard manure and chemical fertilizers	37093	38256	19572	12564	9321
6	Plant protection	2138	3914	1847	1978	1002
7	Land tax and irrigation cess	72	48	94	278	561
8	Repair and maintenance charges of implements, machinery and building	126	131	35	145	637
9	Interest on working capital	9837	19445	16144	11291	18102
10	Other expenses	19322	40532	21640	12973	3983
11	Total cost 'A' (1-10)	127727	254608	199357	137598	204299
12	Interest on fixed capital	985	674	934	886	4315
13	Cost 'B1' (11+12)	128712	255282	200291	138484	208614
14	Interest on land value	434261	944537	341974	288860	231543
15	Cost 'B' (13+14)	562973	1199819	542265	427344	440157
16	Imputed value of household labour	12855	4215	5118	6784	3816
17	Cost 'C' (15+16)	575828	1204034	547383	434128	443973

A2.11 District wise Cost of Cultivation per hectare (in Rs) of pineapple during 2017-18

Sl No	Components	Kozhikode	Wayanad	Kannur	Kasargod	State
1	Hired human labour	40629		28431	46977	41430
2	Animal labour				271	57
3	Machine labour				5690	6671
4	Seed / seedlings	52423		11153	126902	73975
5	Farmyard manure and chemical fertilizers	34931	24700	5397	22857	26044
6	Plant protection	4639		372	149	2515
7	Land tax and irrigation cess	17	296	18	32	61
8	Repair and maintenance charges of implements, machinery and building	42	4940		58	94
9	Interest on working capital	13262	2470	4535	20285	15069
10	Other expenses	28138		3353	42780	26386
11	Total cost 'A' (1-10)	174081	32406	53259	266001	192302
12	Interest on fixed capital	35	2000	1790	1982	683
13	Cost 'B1' (11+12)	174116	34406	55049	267983	192985
14	Interest on land value	95854	37500	156329	254379	502937
15	Cost 'B' (13+14)	269970	71906	211378	522362	695922
16	Imputed value of household labour	5906	101887	7826	3797	5360
17	Cost 'C' (15+16)	275876	173793	219204	526159	701282

**A 2.12 District wise Cost of Cultivation per hectare (in Rs.) of Bitter Gourd (Autumn) during
2017-18**

Sl No	Components	Thiruvananthapuram	Kollam	Pathanamthitta	Alappuzha	Kottayam
1	Hired human labour	80703	108782	22936	143958	100301
2	Animal labour	312				646
3	Machine labour		64			
4	Seed / seedlings	3033	7248	8439	8645	2736
5	Farmyard manure and chemical fertilizers	36102	61993	10315	60790	17940
6	Plant protection	996	2438	1101	5803	1321
7	Land tax and irrigation cess	20	346	77	84	90
8	Repair and maintenance charges of implements, machinery and building	326	3514	398		1317
9	Interest on working capital	12114	18053	4279	21920	12294
10	Other expenses	84017	28399	43496	38008	25470
11	Total cost 'A' (1-10)	217623	230837	91041	279208	162115
12	Interest on fixed capital	3137	1919	553	1556	2594
13	Cost 'B1' (11+12)	220760	232756	91594	280764	164709
14	Interest on land value	452461	110523	109666	285405	367989
15	Cost 'B' (13+14)	673221	343279	201260	566169	532698
16	Imputed value of household labour	201255	89736	75403	193201	97976
17	Cost 'C' (15+16)	874476	433015	276663	759370	630674

A2.12 District wise Cost of Cultivation per hectare (in Rs) of bitter gourd(Autumn) during 2017-18

Sl No	Components	Idukki	Ernakulam	Thrissur	Palakkad	Malappuram
1	Hired human labour		48337	31016	34437	36036
2	Animal labour				53	
3	Machine labour		907		4908	
4	Seed / seedlings		5170	6280	5112	3315
5	Farmyard manure and chemical fertilizers		26273	22976	23596	17758
6	Plant protection		4044	4294	1887	2352
7	Land tax and irrigation cess		87	239	209	15
8	Repair and maintenance charges of implements, machinery and building		336	121	357	82
9	Interest on working capital		8473	6457	6999	5946
10	Other expenses		43352	55253	15600	20134
11	Total cost 'A' (1-10)		136979	126636	93158	85638
12	Interest on fixed capital		1604	3514	4410	966
13	Cost 'B1' (11+12)		138583	130150	97568	86604
14	Interest on land value		520936	803568	130948	213429
15	Cost 'B' (13+14)		659519	933718	228516	300033
16	Imputed value of household labour		28829	29296	26403	69425
17	Cost 'C' (15+16)		688348	963014	254919	369458

**A2.12 District wise Cost of Cultivation per hectare (in Rs) of Bitter Gourd(Autumn)during
2017-18**

Sl No	Components	Kozhikode	Wayanad	Kannur	Kasargod	State
1	Hired human labour			17882	28553	49261
2	Animal labour					94
3	Machine labour				5928	1494
4	Seed / seedlings			5074	4446	4999
5	Farmyard manure and chemical fertilizers			16216	15897	25150
6	Plant protection			1068		2501
7	Land tax and irrigation cess			45	99	136
8	Repair and maintenance charges of implements, machinery and building				395	498
9	Interest on working capital			4024	5482	8350
10	Other expenses			6829	22033	32236
11	Total cost 'A' (1-10)			51138	82833	124719
12	Interest on fixed capital			8148	2620	3280
13	Cost 'B1' (11+12)			59286	85453	127999
14	Interest on land value			215791	86746	342957
15	Cost 'B' (13+14)			275077	172199	470956
16	Imputed value of household labour			32297	96923	56776
17	Cost 'C' (15+16)			307374	269122	527732

A 2.13 District wise Cost of Cultivation per hectare (in Rs.) of Bitter Gourd (Winter) during 2017-18

Sl No	Components	Thiruvananthapuram	Kollam	Pathanamthitta	Alappuzha	Kottayam
1	Hired human labour	91044	105833	43311	155714	93745
2	Animal labour					
3	Machine labour					
4	Seed / seedlings	3512	3681	10968	6660	2887
5	Farmyard manure and chemical fertilizers	36045	52266	9447	68932	18968
6	Plant protection	1115	1448	949	4765	1651
7	Land tax and irrigation cess	8	242	49	162	130
8	Repair and maintenance charges of implements, machinery and building	343	4049	1825	421	1179
9	Interest on working capital	13172	16323	6467	23607	11725
10	Other expenses	62739	30594	50846	41065	36198
11	Total cost 'A' (1-10)	207978	214436	123862	301326	166483
12	Interest on fixed capital	3513	1763	1145	2058	2289
13	Cost 'B1' (11+12)	211491	216199	125007	303384	168772
14	Interest on land value	496238	82556	134708	387523	419108
15	Cost 'B' (13+14)	707729	298755	259715	690907	587880
16	Imputed value of household labour	158202	71440	64130	165400	119738
17	Cost 'C' (15+16)	865931	370195	323845	856307	707618

A2.13 District wise Cost of Cultivation per hectare (in Rs) of Bitter Gourd(Winter) during 2017-1\8

SI No	Components	Idukki	Ernakulam	Thrissur	Palakkad	Malappuram
1	Hired human labour	38381	35638	48039	31394	25444
2	Animal labour				136	
3	Machine labour		278		3569	
4	Seed / seedlings	4847	4062	11752	6523	3827
5	Farmyard manure and chemical fertilizers	20757	16202	27963	13340	16712
6	Plant protection	1445	13058	1936	2318	2476
7	Land tax and irrigation cess	45	91	188	188	27
8	Repair and maintenance charges of implements, machinery and building	2824	608	888	454	127
9	Interest on working capital	6543	6924	8969	5728	4846
10	Other expenses	23194	40740	73122	27649	32229
11	Total cost 'A' (1-10)	98036	117601	172857	91299	85688
12	Interest on fixed capital	4325	6608	17400	8097	2501
13	Cost 'B1' (11+12)	102361	124209	190257	99396	88189
14	Interest on land value	194685	385376	783166	91445	310364
15	Cost 'B' (13+14)	297046	509585	973423	190841	398553
16	Imputed value of household labour	44217	51003	50382	39227	46245
17	Cost 'C' (15+16)	341263	560588	102380 5	230068	444798

**A2.13 District wise Cost of Cultivation per hectare (in Rs) of Bitter gourd(Winter)during
2017-18**

Sl No	Components	Kozhikode	Wayanad	Kannur	Kasargod	State
1	Hired human labour	4940	48947	28937	42573	53687
2	Animal labour					26
3	Machine labour				5592	789
4	Seed / seedlings	3088	10281	7470	6411	6036
5	Farmyard manure and chemical fertilizers	21315	21766	29364	55907	23941
6	Plant protection		4757	8730		3380
7	Land tax and irrigation cess		125	133	917	131
8	Repair and maintenance charges of implements, machinery and building	988	9929		7796	1636
9	Interest on working capital	2934	8575	7450	11048	8786
10	Other expenses	15437	20370	36791	16009	36907
11	Total cost 'A' (1-10)	48702	124750	118875	146253	135319
12	Interest on fixed capital	625	8403	2934	57729	6152
13	Cost 'B1' (11+12)	49327	133153	121809	203982	141471
14	Interest on land value	197600	85339	193978	124785	274219
15	Cost 'B' (13+14)	246927	218492	315787	328767	415690
16	Imputed value of household labour	55575	74131	46403	164853	70768
17	Cost 'C' (15+16)	302502	292623	362190	493620	486458

A 2.14 District wise Cost of Cultivation per hectare (in Rs.) of Bitter Gourd (Summer) during 2017-18

Sl No	Components	Thiruvananthapuram	Kollam	Pathanamthitta	Alappuzha	Kottayam
1	Hired human labour	95905	104594	29229	66482	50813
2	Animal labour					
3	Machine labour				2011	
4	Seed / seedlings	3233	7040	10140	9656	5755
5	Farmyard manure and chemical fertilizers	43181	41156	6181	70996	20177
6	Plant protection	1972	2496	403	2848	2533
7	Land tax and irrigation cess	10	274	19	212	208
8	Repair and maintenance charges of implements, machinery and building	480	5366	2866		1912
9	Interest on working capital	14429	15529	4595	15199	7928
10	Other expenses	73382	41166	31134	41528	20032
11	Total cost 'A' (1-10)	232592	217621	84567	208932	109358
12	Interest on fixed capital	10013	2864	1653	1553	3458
13	Cost 'B1' (11+12)	242605	220485	86220	210485	112816
14	Interest on land value	468564	105684	152655	399665	710469
15	Cost 'B' (13+14)	711169	326169	238875	610150	823285
16	Imputed value of household labour	177000	77077	53842	129197	119509
17	Cost 'C' (15+16)	888169	403246	292717	739347	942794

A2.14 District wise Cost of Cultivation per hectare (in Rs) of Bitter Gourd(Summer)during 2017-18

Sl No	Components	Idukki	Ernakulam	Thrissur	Palakkad	Malappuram
1	Hired human labour		23477	53021	51400	44913
2	Animal labour					
3	Machine labour		292		8134	5790
4	Seed / seedlings		3750	12707	4532	6078
5	Farmyard manure and chemical fertilizers		38095	19939	16242	17959
6	Plant protection		5898	2220	3132	3180
7	Land tax and irrigation cess		64	429	84	218
8	Repair and maintenance charges of implements, machinery and building		413	262	475	2826
9	Interest on working capital		7151	8789	8344	7792
10	Other expenses		96127	28509	24048	39087
11	Total cost 'A' (1-10)		175267	125876	116391	127843
12	Interest on fixed capital		4207	8365	8905	115786
13	Cost 'B1' (11+12)		179474	134241	125296	243629
14	Interest on land value		170025	252601	398689	164283
15	Cost 'B' (13+14)		349499	386842	523985	407912
16	Imputed value of household labour		26516	69994	33289	58781
17	Cost 'C' (15+16)		376015	456836	557274	466693

A2.14 District wise Cost of Cultivation per hectare (in Rs) of Bitter Gourd(summer)during 2017-18

Sl No	Components	Kozhikode	Wayanad	Kannur	Kasargod	State
1	Hired human labour	18002	31125	9122	21917	44704
2	Animal labour					
3	Machine labour				5269	1522
4	Seed / seedlings	5638	8103	15020	5540	7115
5	Farmyard manure and chemical fertilizers	36326	25767	36647	32938	30576
6	Plant protection	1847	4807	465		3189
7	Land tax and irrigation cess	32	79	18	732	141
8	Repair and maintenance charges of implements, machinery and building	358	8324		6023	2221
9	Interest on working capital	6181	6980	6125	6567	8711
10	Other expenses	15321	33109	18198	12036	45115
11	Total cost 'A' (1-10)	83705	118294	85595	91022	143294
12	Interest on fixed capital	2416	4911	466	36487	10409
13	Cost 'B1' (11+12)	86121	123205	86061	127509	153703
14	Interest on land value	172757	55396	241818	142502	237959
15	Cost 'B' (13+14)	258878	178601	327879	270011	391662
16	Imputed value of household labour	74021	57085	83614	142492	70027
17	Cost 'C' (15+16)	332899	235686	411493	412503	461689

A 2.15 District wise Cost of Cultivation per hectare (in Rs.) of Cowpea (Autumn) during 2017-18

Sl No	Components	Thiruvananthapuram	Kollam	Pathanamthitta	Alappuzha	Kottayam
1	Hired human labour	79029	94745	35555	89468	83023
2	Animal labour					
3	Machine labour					
4	Seed / seedlings	3579	5157	5604	5943	3569
5	Farmyard manure and chemical fertilizers	34538	44276	10679	38192	16484
6	Plant protection	7580	1361	1597	4039	1054
7	Land tax and irrigation cess		285	111	183	73
8	Repair and maintenance charges of implements, machinery and building	728	2755	1871		1442
9	Interest on working capital	12473	14554	5344	13764	10413
10	Other expenses	42917	20796	42077	36418	33355
11	Total cost 'A' (1-10)	180844	183929	102838	188007	149413
12	Interest on fixed capital	2691	1529	1068	981	1820
13	Cost 'B1' (11+12)	183535	185458	103906	188988	151233
14	Interest on land value	394445	141882	108157	287246	269914
15	Cost 'B' (13+14)	577980	327340	212063	476234	421147
16	Imputed value of household labour	82581	74624	68186	95023	76448
17	Cost 'C' (15+16)	660561	401964	280249	571257	497595

A2.15 District wise Cost of Cultivation per hectare (in Rs) of Cowpea (Autumn)during 2017-18

Sl No	Components	Idukki	Ernakulam	Thrissur	Palakkad	Malappuram
1	Hired human labour	69890	50078	51761	31908	35744
2	Animal labour				49	
3	Machine labour		2290		4253	468
4	Seed / seedlings	4210	4229	3397	2735	4270
5	Farmyard manure and chemical fertilizers	5277	18142	29052	15611	16173
6	Plant protection	1796	3440	2489	2291	3363
7	Land tax and irrigation cess		46	195	279	59
8	Repair and maintenance charges of implements, machinery and building	561	415	143	524	78
9	Interest on working capital	8117	7818	8670	5685	6002
10	Other expenses	32897	29357	45814	10096	21283
11	Total cost 'A' (1-10)	122748	115815	141521	73431	87440
12	Interest on fixed capital	694	2925	4809	4136	1715
13	Cost 'B1' (11+12)	123442	118740	146330	77567	89155
14	Interest on land value	98800	535178	111636 8	117705	279269
15	Cost 'B' (13+14)	222242	653918	126269 8	195272	368424
16	Imputed value of household labour		32677	34674	35314	44648
17	Cost 'C' (15+16)	222242	686595	129737 2	230586	413072

A2.15 District wise Cost of Cultivation per hectare (in Rs) of Cowpea (Autumn) during 2017-18

Sl No	Components	Kozhikode	Wayanad	Kannur	Kasargod	State
1	Hired human labour	24447	57633	33683	39767	56350
2	Animal labour					8
3	Machine labour			3841	7410	1367
4	Seed / seedlings	3200	7616	4107	9139	4060
5	Farmyard manure and chemical fertilizers	17875	19287	27975	20254	23166
6	Plant protection		2182	1073		2693
7	Land tax and irrigation cess	42	325	142	74	141
8	Repair and maintenance charges of implements, machinery and building	225	4117			687
9	Interest on working capital	4552	8672	7068	7657	8764
10	Other expenses	4912	6421	5540	25441	27254
11	Total cost 'A' (1-10)	55253	106253	83429	109742	124490
12	Interest on fixed capital	209	8250	10148	3950	3192
13	Cost 'B1' (11+12)	55462	114503	93577	113692	127682
14	Interest on land value	98800	155075	198391	179322	366417
15	Cost 'B' (13+14)	154262	269578	291968	293014	494099
16	Imputed value of household labour	29485	122059	37278	72618	53562
17	Cost 'C' (15+16)	183747	391637	329246	365632	547661

A 2.16 District wise Cost of Cultivation per hectare (in Rs.) of Cowpea (Winter) during 2017-18

Sl No	Components	Thiruvananthapuram	Kollam	Pathanamthitta	Alappuzha	Kottayam
1	Hired human labour	123493	124636	49325	90086	67167
2	Animal labour				260	
3	Machine labour					
4	Seed / seedlings	3747	3561	5001	8165	4895
5	Farmyard manure and chemical fertilizers	37521	40537	7676	36901	18611
6	Plant protection	7131	929	1029	3044	833
7	Land tax and irrigation cess	113	228	50	193	171
8	Repair and maintenance charges of implements, machinery and building	922	3059	2061	292	1283
9	Interest on working capital	17189	16966	6303	13846	9150
10	Other expenses	52465	31337	35473	36128	16043
11	Total cost 'A' (1-10)	242581	221253	106918	188915	118153
12	Interest on fixed capital	7827	1316	999	1607	1414
13	Cost 'B1' (11+12)	250408	222569	107917	190522	119567
14	Interest on land value	342230	95909	163642	406124	522863
15	Cost 'B' (13+14)	592638	318478	271559	596646	642430
16	Imputed value of household labour	198992	75942	64554	112229	95915
17	Cost 'C' (15+16)	791630	394420	336113	708875	738345

A2.16 District wise Cost of Cultivation per hectare (in Rs) of Cowpea (Winter)during 2017-18

Sl No	Components	Idukki	Ernakulam	Thrissur	Palakkad	Malappuram
1	Hired human labour	22611	32664	71729	49209	28516
2	Animal labour				350	
3	Machine labour		501		4399	
4	Seed / seedlings	3242	3784	5162	3785	3808
5	Farmyard manure and chemical fertilizers	14882	15968	15773	16256	16432
6	Plant protection	1556	7571	2085	2796	2410
7	Land tax and irrigation cess	12	85	169	278	25
8	Repair and maintenance charges of implements, machinery and building	1322	532	284	1354	184
9	Interest on working capital	4229	6049	9475	7679	5117
10	Other expenses	23741	29448	55093	29967	26989
11	Total cost 'A' (1-10)	71595	96602	159770	116073	83481
12	Interest on fixed capital	3417	8176	14946	13629	2502
13	Cost 'B1' (11+12)	75012	104778	174716	129702	85983
14	Interest on land value	195537	336131	396640	107593	317520
15	Cost 'B' (13+14)	270549	440909	571356	237295	403503
16	Imputed value of household labour	43406	49551	67897	51392	51862
17	Cost 'C' (15+16)	313955	490460	639253	288687	455365

A 2.16 District wise Cost of Cultivation per hectare (in Rs.) of Cowpea (Winter) during 2017-18

Sl No	Components	Kozhikode	Wayanad	Kannur	Kasaragod	State
1	Hired human labour	4721	51401	34989	33554	56939
2	Animal labour					61
3	Machine labour			3530	4902	1037
4	Seed / seedlings	3142	8886	5027	6483	4830
5	Farmyard manure and chemical fertilizers	14713	25621	18762	33802	21051
6	Plant protection	491	6859	3485		3042
7	Land tax and irrigation cess	98	269	77	986	164
8	Repair and maintenance charges of implements, machinery and building	453	11685		8808	1918
9	Interest on working capital	2307	9277	6579	7874	8696
10	Other expenses	7438	21834	17569	9930	28519
11	Total cost 'A' (1-10)	33363	135832	90018	106339	126257
12	Interest on fixed capital	204	5715	7635	63138	7232
13	Cost 'B1' (11+12)	33567	141547	97653	169477	133489
14	Interest on land value	134755	86773	310878	95409	274418
15	Cost 'B' (13+14)	168322	228320	408531	264886	407907
16	Imputed value of household labour	47664	94122	62794	194072	79537
17	Cost 'C' (15+16)	215986	322442	471325	458958	487444

A 2.17 District wise Cost of Cultivation per hectare (in Rs.) of Cowpea (Summer) during 2017-18

Sl No	Components	Thiruvananthapuram	Kollam	Pathanamthitta	Alappuzha	Kottayam
1	Hired human labour	90332	132545	39462	80916	81514
2	Animal labour				515	
3	Machine labour					
4	Seed / seedlings	3714	6459	2872	4058	4898
5	Farmyard manure and chemical fertilizers	35159	42520	5190	23409	15672
6	Plant protection	6262	1945	691	1491	1062
7	Land tax and irrigation cess	13	281	83	121	175
8	Repair and maintenance charges of implements, machinery and building	676	6187	1805	279	882
9	Interest on working capital	13547	18347	4821	11039	10315
10	Other expenses	47618	32876	18920	22774	18524
11	Total cost 'A' (1-10)	197321	241160	73844	144602	133042
12	Interest on fixed capital	6028	3830	889	1085	943
13	Cost 'B1' (11+12)	203349	244990	74733	145687	133985
14	Interest on land value	349066	107792	158922	268029	540345
15	Cost 'B' (13+14)	552415	352782	233655	413716	674330
16	Imputed value of household labour	151476	77429	51456	92352	73793
17	Cost 'C' (15+16)	703891	430211	285111	506068	748123

A2.17 District wise Cost of Cultivation per hectare (in Rs) of Cowpea (Summer)during 2017-18

Sl No	Components	Idukki	Ernakulam	Thrissur	Palakkad	Malappuram
1	Hired human labour		29755	59034	60956	26278
2	Animal labour					
3	Machine labour		1600		275	839
4	Seed / seedlings		4727	4813	4001	5206
5	Farmyard manure and chemical fertilizers		18361	14941	17784	21998
6	Plant protection		3493	2999	3273	5078
7	Land tax and irrigation cess		94	455	299	446
8	Repair and maintenance charges of implements, machinery and building		781	60	811	1662
9	Interest on working capital		5794	8179	8629	5940
10	Other expenses		20888	29982	19621	34350
11	Total cost 'A' (1-10)		85493	120463	115649	101797
12	Interest on fixed capital		10000	10404	4502	10396
13	Cost 'B1' (11+12)		95493	130867	120151	112193
14	Interest on land value		349796	437477	69994	222100
15	Cost 'B' (13+14)		445289	568344	190145	334293
16	Imputed value of household labour		61013	55472	64638	70201
17	Cost 'C' (15+16)		506302	623816	254783	404494

A 2.17 District wise Cost of Cultivation per hectare (in Rs.) of Cowpea (Summer) during 2017-18

Sl No	Components	Kozhikode	Wayanad	Kannur	Kasaragod	State
1	Hired human labour	9816	60538	8707	10332	58216
2	Animal labour					38
3	Machine labour	2123			1869	307
4	Seed / seedlings	6297	10082	807	7155	5122
5	Farmyard manure and chemical fertilizers	21412	29372	13973	32477	21622
6	Plant protection	1627	4177	203		2576
7	Land tax and irrigation cess	33	203	94	649	215
8	Repair and maintenance charges of implements, machinery and building	199	7874		4139	2093
9	Interest on working capital	4128	10417	2369	5183	8788
10	Other expenses	13036	20561	5285	7160	23180
11	Total cost 'A' (1-10)	58671	143224	31438	68964	122157
12	Interest on fixed capital	2662	5688	5090	33991	5924
13	Cost 'B1' (11+12)	61333	148912	36528	102955	128081
14	Interest on land value	146174	68111	223643	114975	273669
15	Cost 'B' (13+14)	207507	217023	260171	217930	401750
16	Imputed value of household labour	59734	81589	114025	129735	82706
17	Cost 'C' (15+16)	267241	298612	374196	347665	484456

**A 2.18 District wise Cost of Cultivation per hectare (in Rs.) of Cardamom during
2017-18**

Sl No	Components	Idukki	Palakkad	Wayanad	State
1	Hired human labour	64415	55563	94343	68575
02	Animal labour				
3	Machine labour				
4	Seed / seedlings	2255		281	1442
5	Farmyard manure and chemical fertilizers	35275	19945	34818	32276
6	Plant protection	4641	779	13934	5721
7	Land tax and irrigation cess	58	222	158	109
8	Repair and maintenance charges of implements, machinery and building	576		10282	2361
9	Interest on working capital	10659	7629	14338	10801
10	Other expenses	19312	9793	11888	16057
11	Total cost 'A' (1-10)	137191	93932	180042	137342
12	Interest on fixed capital	1437		14496	3713
13	Cost 'B1' (11+12)	138629	93932	194538	141055
14	Interest on land value	108023	48455	251386	124690
15	Cost 'B' (13+14)	246651	142387	445924	265745
16	Imputed value of household labour	13822	9470	85740	27029
17	Cost 'C' (15+16)	260473	151857	531664	292774

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	31.14	49.24	80.38
2	Kollam	33.65	42.38	76.03
3	Pathanamthitta	38.86	55.64	94.5
4	Alappuzha	26.46	40.15	66.61
5	Kottayam	40.56	26.55	67.11
6	Idukki	25.76	38.45	64.21
7	Eranakulam	27.23	50.21	77.44
8	Thrissur	45.67	36.36	82.03
9	Palakkad	15.99	67.26	83.25
10	Malappuram	39.89	44.64	84.53
11	Kozhikkode	21.92	56.37	78.29
12	Wayanad			0
13	Kannur	7.39	71.03	78.42
14	Kasaragod	19.21	59.75	78.96
	State	27.53	50.64	78.17

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	32.21	48.01	80.22
2	Kollam	40.06	43.32	83.38
3	Pathanamthitta	42.69	47.72	90.41
4	Alappuzha	35.2	43.08	78.28
5	Kottayam	29.68	32.66	62.34
6	Idukki	24.08	34.48	58.56
7	Eranakulam	42.08	38.71	80.79
8	Thrissur	54.44	25.2	79.64
9	Palakkad	19.72	60.77	80.49
10	Malappuram	50.13	26.73	76.86
11	Kozhikkode	31.24	52.71	83.95
12	Wayanad	33.17	36.91	70.08
13	Kannur	16.21	68.38	84.59
14	Kasaragod	15.46	56.56	72.02
	State	34.98	42.94	77.92

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	41.49	36.36	77.85
2	Kollam	36.31	49.86	86.17
3	Pathanamthitta	42.16	47.44	89.6
4	Alappuzha	38.2	45.1	83.3
5	Kottayam	42.85	31.36	74.21
6	Idukki	26.98	34.55	61.53
7	Eranakulam	31.85	28.17	60.02
8	Thrissur	36.11	51.12	87.23
9	Palakkad	20.36	60.98	81.34
10	Malappuram	58.11	18.56	76.67
11	Kozhikkode	22.49	67.21	89.7
12	Wayanad	38.21	40.48	78.69
13	Kannur	22.84	39.73	62.57
14	Kasaragod	9.19	56.05	65.24
	State	35.85	44.20	80.05

A3.4 Percentage of Hired human labour hours to total human labour hours under Coconut				
Sl No	District	Male	Female	Total
1	Thiruvananthapuram	71.51	4.47	75.98
2	Kollam	70.86	0	70.86
3	Pathanamthitta	76.81	2.24	79.05
4	Alappuzha	80.71	0.77	81.48
5	Kottayam	77.31	5.39	82.7
6	Idukki	71.81	0.24	72.05
7	Eranakulam	58.28	6.65	64.93
8	Thrissur	69.72	12.38	82.1
9	Palakkad	68.16	17.05	85.21
10	Malappuram	65.88	6.36	72.24
11	Kozhikkode	72.72	9.01	81.73
12	Wayanad	65.31	4.2	69.51
13	Kannur	53.33	17.72	71.05
14	Kasaragod	49.49	31.82	81.31
	State	67.44	9.82	77.26

A 3.5 Percentage of Hired human labour hours to total human labour hours under Arecanut				
Sl No	District	Male	Female	Total
1	Thiruvananthapuram	64.94	1.42	66.36
2	Kollam	80.71	0	80.71
3	Pathanamthitta	71.67	1.58	73.25
4	Alappuzha	18.27	0	18.27
5	Kottayam	57.98	0	57.98
6	Idukki	60.25	1.87	62.12
7	Eranakulam	53.38	9.53	62.91
8	Thrissur	48.91	21.83	70.74
9	Palakkad	46.18	22.81	68.99
10	Malappuram	55.79	10.03	65.82
11	Kozhikkode	52.6	19.35	71.95
12	Wayanad	59.06	22.33	81.39
13	Kannur	52.42	22.55	74.97
14	Kasaragod	42.97	29.41	72.38
	State	52.27	17.25	69.52

A 3.6 Percentage of Hired human labour hours to total human labour hours under Tapioca				
Sl No	District	Male	Female	Total
1	Thiruvananthapuram	67.2	0.54	67.74
2	Kollam	73.05	0.77	73.82
3	Pathanamthitta	41.38	3.85	45.23
4	Alappuzha	46.5	2.56	49.06
5	Kottayam	59.03	5.55	64.58
6	Idukki	39.94	15.77	55.71
7	Eranakulam	56.73	9.91	66.64
8	Thrissur	38.57	14.41	52.98
9	Palakkad	54.97	20.65	75.62
10	Malappuram	53.16	7.85	61.01
11	Kozhikkode	52.15	0	52.15
12	Wayanad	56.65	1.45	58.1
13	Kannur	35.56	12.19	47.75
14	Kasaragod	21.83	33.1	54.93
	State	50.73	9.43	60.16

A 3.7 Percentage of Hired human labour hours to total human labour hours under Banana				
Sl No	District	Male	Female	Total
1	Thiruvananthapuram	60.16	0.13	60.29
2	Kollam	82.15	0	82.15
3	Pathanamthitta	63.16	4.81	67.97
4	Alappuzha	57.97	0	57.97
5	Kottayam	62.24	2.45	64.69
6	Idukki	52.81	8.51	61.32
7	Eranakulam	65.63	4.85	70.48
8	Thrissur	52.75	16.04	68.79
9	Palakkad	46.33	26.56	72.89
10	Malappuram	61.28	1.08	62.36
11	Kozhikkode	57.72	0.09	57.81
12	Wayanad	64.14	0	64.14
13	Kannur	38.7	12.94	51.64
14	Kasaragod	15.24	20.55	35.79
	State	57.03	8.48	65.51
A 3.8 Percentage of Hired human labour hours to total human labour hours under Pepper				
Sl No	District	Male	Female	Total
1	Thiruvananthapuram	68.83	3.4	72.23
2	Kollam	54.45	0	54.45
3	Pathanamthitta	70.25	2.93	73.18
4	Alappuzha	21.12	2.16	23.28
5	Kottayam	43.86	0.85	44.71
6	Idukki	64.8	3.4	68.2
7	Eranakulam	49.34	8.64	57.98
8	Thrissur	34.8	17.81	52.61
9	Palakkad	43.23	20.95	64.18
10	Malappuram	40.73	1.79	42.52
11	Kozhikkode	57.65	7.99	65.64
12	Wayanad	51.15	8.29	59.44
13	Kannur	41.21	16.94	58.15
14	Kasaragod	25.19	21.02	46.21
	State	49.18	8.02	57.2

A 3.9 Percentage of Hired human labour hours to total human labour hours under Ginger				
Sl No	District	Male	Female	Total
1	Thiruvananthapuram	51.94	3.88	55.82
2	Kollam	72.95	3.09	76.04
3	Pathanamthitta	56.48	11.64	68.12
4	Alappuzha	40.32	4.67	44.99
5	Kottayam	19.95	3	22.95
6	Idukki	20.5	21.93	42.43
7	Eranakulam	35.67	12.29	47.96
8	Thrissur	29.48	28.61	58.09
9	Palakkad	26.95	59.61	86.56
10	Malappuram	44.29	13.14	57.43
11	Kozhikkode	30.6	21.36	51.96
12	Wayanad	47.34	28.01	75.35
13	Kannur	25.57	29.59	55.16
14	Kasaragod	18.19	36.03	54.22
	State	34.64	38.24	72.88

A 3.10 Percentage of Hired human labour hours to total human labour hours under Turmeric				
Sl No	District	Male	Female	Total
1	Thiruvananthapuram	51.75	2.64	54.39
2	Kollam	76.27	0	76.27
3	Pathanamthitta	51.39	10.06	61.45
4	Alappuzha	38.54	0.86	39.4
5	Kottayam	28.44	3.49	31.93
6	Idukki	16.36	16.82	33.18
7	Eranakulam	40.66	19.39	60.05
8	Thrissur	29.73	22.25	51.98
9	Palakkad	34.05	43.45	77.5
10	Malappuram	35.23	10.62	45.85
11	Kozhikkode	19.68	1.51	21.19
12	Wayanad	19.93	21.2	41.13
13	Kannur	15.85	18.22	34.07
14	Kasaragod	20.92	21.98	42.9
	State	34.31	22.07	56.38

A 3.11 Percentage of Hired human labour hours to total human labour hours under Pineapple				
Sl No	District	Male	Female	Total
1	Thiruvananthapuram	72.64	0	72.64
2	Kollam	85.37	0	85.37
3	Pathanamthitta	48.97	27.66	76.63
4	Alappuzha	43.14	0	43.14
5	Kottayam	69.37	21.01	90.38
6	Idukki	57.33	22.19	79.52
7	Eranakulam	62.47	27.06	89.53
8	Thrissur	68.57	20.65	89.22
9	Palakkad	66.29	19.05	85.34
10	Malappuram	87.56	7.58	95.14
11	Kozhikkode	80.53	6.69	87.22
12	Wayanad	0	0	0
13	Kannur	59.55	19.39	78.94
14	Kasaragod	39.17	54.8	93.97
	State	65.82	22.93	88.75

A 3.12 Percentage of Hired human labour hours to total human labour hours under Bitter Gourd (Autumn)				
Sl No	District	Male	Female	Total
1	Thiruvananthapuram	28.03	0	28.03
2	Kollam	53.72	1.99	55.71
3	Pathanamthitta	21.52	1.46	22.98
4	Alappuzha	21.11	7.46	28.57
5	Kottayam	30.65	14.52	45.17
6	Idukki			0
7	Eranakulam	43.5	15.84	59.34
8	Thrissur	29.7	23.25	52.95
9	Palakkad	34.55	21.42	55.97
10	Malappuram	31.18	1.62	32.8
11	Kozhikkode			0
12	Wayanad			0
13	Kannur	8.62	10.35	18.97
14	Kasaragod	14.2	8.28	22.48
	State	32.62	11.8	44.42

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	34.4	0.15	34.55
2	Kollam	58.44	0	58.44
3	Pathanamthitta	39.71	0.57	40.28
4	Alappuzha	24.81	10.15	34.96
5	Kottayam	20.63	23.96	44.59
6	Idukki	37.1	9.99	47.09
7	Eranakulam	23.26	15.41	38.67
8	Thrissur	30.09	21.63	51.72
9	Palakkad	24.86	21.65	46.51
10	Malappuram	25.49	8.22	33.71
11	Kozhikkode	7.55	0	7.55
12	Wayanad	30.63	8.89	39.52
13	Kannur	15.48	10.43	25.91
14	Kasaragod	6.25	17.53	23.78
	State	28.35	13.49	41.84

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	35.15	0.24	35.39
2	Kollam	55.26	0	55.26
3	Pathanamthitta	34.72	0.54	35.26
4	Alappuzha	19.99	6.02	26.01
5	Kottayam	19.71	8.6	28.31
6	Idukki			0
7	Eranakulam	29.62	13.04	42.66
8	Thrissur	22.52	26.66	49.18
9	Palakkad	31.87	30.35	62.22
10	Malappuram	31.8	8.2	40
11	Kozhikkode	18.02	0	18.02
12	Wayanad	29.33	4.68	34.01
13	Kannur	6.34	3.51	9.85
14	Kasaragod	5.63	8.42	14.05
	State	28.93	10.16	39.09

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	49.83	0	49.83
2	Kollam	52.33	0	52.33
3	Pathanamthitta	32.69	0.64	33.33
4	Alappuzha	29.49	7.72	37.21
5	Kottayam	37	14.86	51.86
6	Idukki	100	0	100
7	Eranakulam	36.53	25.44	61.97
8	Thrissur	37.06	22.77	59.83
9	Palakkad	16.76	31.29	48.05
10	Malappuram	40.01	4.62	44.63
11	Kozhikkode	41.59	3.27	44.86
12	Wayanad	22.46	9.36	31.82
13	Kannur	10.34	40.5	50.84
14	Kasaragod	22.22	11.11	33.33
	State	34.07	15.93	50.00

A3.16 Percentage of Hired human labour hours to total human labour hours under Cowpea (Winter)				
Sl No	District	Male	Female	Total
1	Thiruvananthapuram	32.95	0.18	33.13
2	Kollam	62.39	0	62.39
3	Pathanamthitta	41.66	1.41	43.07
4	Alappuzha	25.19	9.58	34.77
5	Kottayam	29.26	12.92	42.18
6	Idukki	22.76	8.01	30.77
7	Eranakulam	22.1	15.26	37.36
8	Thrissur	33.15	20.44	53.59
9	Palakkad	17.94	34.92	52.86
10	Malappuram	25.9	6.76	32.66
11	Kozhikkode	8.63	0	8.63
12	Wayanad	26.37	6.37	32.74
13	Kannur	13.1	27.32	40.42
14	Kasaragod	3.48	16.79	20.27
	State	27.84	13.56	41.4

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	36.64	0.21	36.85
2	Kollam	64.25	0	64.25
3	Pathanamthitta	39.98	2.78	42.76
4	Alappuzha	33.89	4.02	37.91
5	Kottayam	33.19	4.14	37.33
6	Idukki			0
7	Eranakulam	15.9	8.64	24.54
8	Thrissur	29.39	25.66	55.05
9	Palakkad	23.68	21.04	44.72
10	Malappuram	20.79	3.88	24.67
11	Kozhikkode	12.5	0.55	13.05
12	Wayanad	36.52	3.92	40.44
13	Kannur	2.82	2.46	5.28
14	Kasaragod	1.59	8.63	10.22
	State	31.05	5.96	37.01

A 3.18 Percentage of Hired human labour hours to total human labour hours under Cardamom				
Sl No	District	Male	Female	Total
1	Idukki	20.37	63.65	84.02
2	Palakkad	36.61	50.03	86.64
3	Wayanad	16.17	38.46	54.63
	State	21.22	52.55	73.77

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	101964	29429	131393
2	Kollam	81750	24588	106338
3	Pathanamthitta	23246	788	24034
4	Alappuzha	91355	2436	93791
5	Kottayam	106985		106985
6	Idukki	70990	6454	77444
7	Eranakulam	63832	8321	72153
8	Thrissur	76015	761	76776
9	Palakkad	86760	5686	92446
10	Malappuram	59676	7646	67322
11	Kozhikkode	44161	15646	59808
12	Wayanad			
13	Kannur	74022	18936	92957
14	Kasaragod	66558	29157	95715
	State	77976	7614	85591

A4.2 District wise Value of product and by-product per hectare (in Rs.) of Winter Paddy				
Sl No	District	Product	By Product	Total
1	Thiruvananthapuram	65574	22947	88520
2	Kollam	171166	40123	211289
3	Pathanamthitta	79516	4860	84377
4	Alappuzha	96581	3026	99607
5	Kottayam	97763	1922	99686
6	Idukki	72666	33807	106472
7	Eranakulam	72683	12905	85588
8	Thrissur	109207	13375	122582
9	Palakkad	100924	14654	115578
10	Malappuram	69846	14960	84805
11	Kozhikkode	61634	22907	84541
12	Wayanad	54002	21751	75753
13	Kannur	73366	26165	99531
14	Kasaragod	73052	33889	106941
	State	91975	14356	106331

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	88851	30515	119366
2	Kollam	90624	27437	118061
3	Pathanamthitta	42468	1867	44334
4	Alappuzha	85784	3327	89111
5	Kottayam	100094		100094
6	Idukki	80060	28832	108892
7	Eranakulam	74093	14609	88703
8	Thrissur	122627	8351	130979
9	Palakkad	93556	10715	104271
10	Malappuram	100667	12883	113551
11	Kozhikkode	93658	13884	107542
12	Wayanad	48058	15112	63170
13	Kannur	73763	25487	99250
14	Kasaragod	77288	28886	106175
	State	87596	8079	95675

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	193894	5365	199259
2	Kollam	142738	292	143030
3	Pathanamthitta	99440	975	100415
4	Alappuzha	120301	512	120813
5	Kottayam	147711		147711
6	Idukki	169306		169306
7	Eranakulam	165869	410	166278
8	Thrissur	120647	2938	123586
9	Palakkad	138273	2024	140297
10	Malappuram	200058	5158	205216
11	Kozhikkode	104854	1040	105894
12	Wayanad	157270		157270
13	Kannur	85545	46154	131699
14	Kasaragod	174072	3721	177793
	State	145997	4286	150283

A4.5 District wise Value of product and by-product per hectare (in Rs.) of Arecanut, Tapioca and Banana.				
Sl No	District	Arecanut	Tapioca	Banana
1	Thiruvananthapuram	784086	288543	754407
2	Kollam	87685	219478	402875
3	Pathanamthitta	123720	333664	414753
4	Alappuzha	83349	317679	398022
5	Kottayam	253439	300373	493742
6	Idukki	92420	316796	466821
7	Eranakulam	278888	384681	516481
8	Thrissur	231500	235325	627956
9	Palakkad	205759	235628	395085
10	Malappuram	217121	241052	392461
11	Kozhikkode	130701	215131	483977
12	Wayanad	189271	213485	409023
13	Kannur	273081	384900	470472
14	Kasaragod	400778	322403	616412
	State	248838	287490	481535

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	188798	715466	382091
2	Kollam	311476	342751	200691
3	Pathanamthitta	237021	231072	166438
4	Alappuzha	378842	378959	308993
5	Kottayam	314613	268399	372544
6	Idukki	275775	201510	189055
7	Eranakulam	261606	398623	308287
8	Thrissur	237887	348078	223145
9	Palakkad	162774	428184	391750
10	Malappuram	154298	261593	195482
11	Kozhikkode	167099	162355	160244
12	Wayanad	183280	403694	202624
13	Kannur	799969	437891	355765
14	Kasaragod	295555	295588	442341
	State	256679	363578	287347

A4.7 District wise Value of product and by-product per hectare of Pineapple		
Sl No	District	Pineapple
1	Thiruvananthapuram	403411
2	Kollam	273702
3	Pathanamthitta	176814
4	Alappuzha	211714
5	Kottayam	315596
6	Idukki	298318
7	Eranakulam	504476
8	Thrissur	471362
9	Palakkad	323850
10	Malappuram	377576
11	Kozhikkode	319929
12	Wayanad	200070
13	Kannur	193207
14	Kasaragod	1626152
	State	435187

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	569700	595776	548805
2	Kollam	449742	411517	388975
3	Pathanamthitta	298522	307733	225115
4	Alappuzha	503911	522530	455783
5	Kottayam	317695	295007	234496
6	Idukki		230724	
7	Eranakulam	235118	307592	151191
8	Thrissur	231460	259382	224671
9	Palakkad	270456	352594	184740
10	Malappuram	796274	160856	203840
11	Kozhikkode		118560	192514
12	Wayanad		310948	261892
13	Kannur	178088	343486	318317
14	Kasaragod	40834	311059	281413
	State	335728	326496	263578

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	281437	472455	464255
2	Kollam	390877	419755	411868
3	Pathanamthitta	286893	243506	167362
4	Alappuzha	401779	374111	322473
5	Kottayam	387764	229086	245224
6	Idukki	239983	215103	
7	Eranakulam	299096	245320	243832
8	Thrissur	261815	255906	195898
9	Palakkad	285465	299004	275293
10	Malappuram	179431	138707	205106
11	Kozhikkode	150670	158004	146939
12	Wayanad	305169	232279	298792
13	Kannur	231130	204154	169849
14	Kasaragod	213507	343391	229006
	State	300144	267466	262241

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

Sl No	District	Cardamom
1	Idukki	568749
2	Palakkad	207141
3	Wayanad	359632
	State	459312