



Government of Kerala

Report On
Cost of Cultivation of
Important Crops in Kerala
2023-24

Department of Economics & Statistics
KERALA
2026
www.ecostat.kerala.gov.in



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Preface

Agriculture plays a significant role in Kerala's economy and society, especially in the current context of global economic uncertainty, climate change, and shifting food security concerns. The agricultural sector in Kerala has encountered considerable obstacles, such as limited land availability, elevated production costs, seasonal fluctuations, and challenges in marketing. These issues have contributed to a decline in the sector share of the State Domestic Product. To address these concerns, it is crucial to formulate effective support price policies, enhance marketing infrastructure, and assess the losses resulting from natural calamities, wildlife attacks, etc. Achieving these goals requires reliable data on crop husbandry, from sowing to harvesting.

In this regard, Department of Economics and Statistics has been conducting an annual survey on the cost of cultivation of key crops in Kerala since 1980-81. The survey is being conducted across 38 Taluks in Kerala during each agricultural year. This report is based on the survey conducted during the agricultural year 2023-24, covering key crops such as Paddy (Autumn, Winter, and Summer), Coconut, Arecanut, Pepper, Banana, Tapioca, Ginger, Turmeric, Bitter Gourd (Autumn, Winter, and Summer), Cowpea (Autumn, Winter, and Summer), Ash gourd (Autumn, Winter, and Summer), Pineapple, Cardamom, Cucumber (Autumn, Winter, and Summer), Snake gourd (Autumn, Winter, and Summer), Ladies finger (Autumn, Winter, and Summer), Cabbage (Autumn, Winter, and Summer), Carrot (Autumn, Winter, and Summer), Potato (Autumn, Winter, and Summer), Beans (Autumn, Winter, and Summer), Garlic (Autumn, Winter, and Summer), Tomato (Autumn, Winter, and Summer), Beetroot.

The fieldwork of the survey was carried out by the Statistical Investigators in the Taluk Statistical Offices where the scheme is in operation. This report was prepared by the Cost of Cultivation Division of the Directorate of Economics and Statistics headed by Sri. Abhilash K, Deputy Director under the guidance and supervision by Smt. Salini P K, Additional Director (State Income). The efforts put in by all officers involved in this survey, including those who collected data from cultivators at regular intervals, supervisory officers who ensured data quality, and the data tabulation and processing team at the Directorate who contributed to the publication, are highly appreciated.

I hope the report will be useful to Planners, Policymakers, Researchers and other data users. Suggestions and feedback to improve the quality and utility of this publication are most welcome.

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Key Findings

Top Profit Generating crop : 2023-24



Ginger Leads in Total Output

Superior Revenue Performance

Highest output value per hectare

Top Profit Generating crops other than Ginger

High-Output :Banana



Requires significant input balanced by high-output; moderate efficiency

High Input and Output: Pineapple

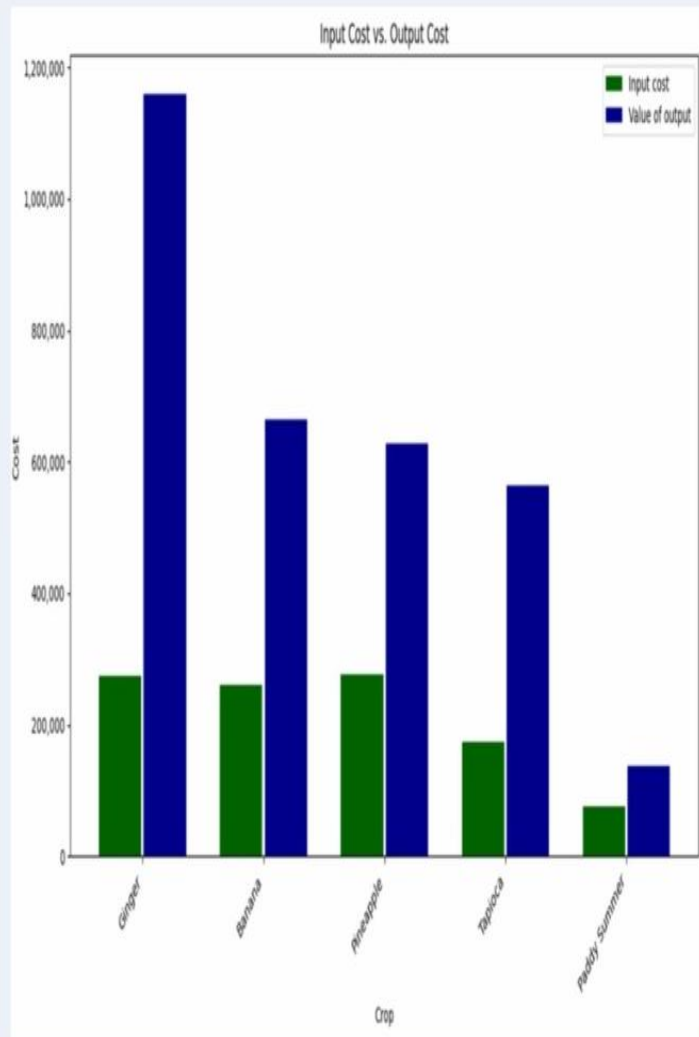


High revenue but heavy input

Tapioca's High Return Ratio



Produces Rs. 564,427 output from an input cost of only Rs. 174,039; strong revenue with better cost balance.



Input-Output Cost Analysis

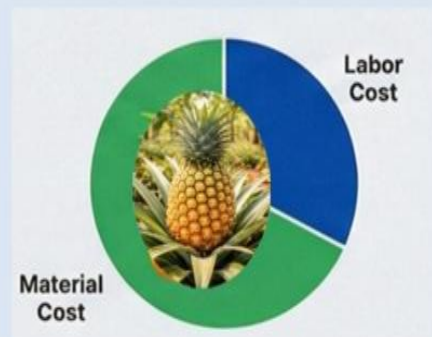


Cabbage is the Most Labour Intensive

Labor costs dominate total cultivation expense

Pineapple Requires Most Materials

Material costs dominate total budget



Summer Paddy Efficiency

Highest output value among all seasonal paddy varieties

Efficiency among Vegetables: Bitter gourd

Among vegetables, bitter gourd shows the highest efficiency, followed by cowpea and cucumber












At a glance...

	Crop	Input cost (in Rs.per hectare)	Value of output (in Rs.per hectare)	Labour cost ratio	Material cost ratio
	Autumn	82488	117719	56.50	34.65
	Paddy Winter	78596	124919	56.31	35.31
	Summer	74874	137325	51.53	40.68
	Coconut	97530	162175	61.65	28.56
	Arecanut	151488	391209	58.59	31.85
	Tapioca	174039	564427	51.6	39.74
	Banana	260472	677923	39.11	52.88
	Pepper	98183	270051	61.48	28.04
	Ginger	273571	1160056	30.98	59.76
	Turmeric	159505	339370	43.38	47.08
	Pineapple	275663	628394	31.99	67.77
	Autumn	151897	457722	42.09	49.88
	Bitter gourd Winter	153316	438945	42.08	49.40
	Summer	168782	508169	43.04	48.63

	Crop	Input cost (in Rs.per hectare)	Value of output (in Rs.per hectare)	Labour cost ratio	Material cost ratio
	Autumn	162123	431854	42.05	49.57
	Cowpea Winter	152402	433545	43.46	47.78
	Summer	136793	384463	32.01	34.17
	Cardamom	255152	589905	48.52	43.66
	Autumn	89431	232944	47.68	43.96
	Ash Gourd Winter	95953	268589	42.92	48.49
	Summer	120187	333437	34.99	56.59
	Autumn	102736	274097	34.11	57.78
	Cucumber Winter	99412	279854	35.75	56.05
	Summer	111935	279928	37.65	53.93
	Autumn	143464	363517	37.1	55.39
	Snake Gourd Winter	131778	341877	43.49	48.39
	Summer	137957	332735	45.22	46.48
	Autumn	124238	305861	39.20	51.16
	Ladies finger Winter	114056	318580	39.02	52.05
	Summer	120757	319807	36.31	39.71
	Cabbage Winter	150996	307824	73.97	16.93
	Autumn	151471	318128	44.84	45.65
	Tomato Winter	149536	192281	43.48	47.57
	Summer	189198	275767	35.51	55.76
	Beans Summer	248661	446082	72.01	17.36

ഒറ്റനോട്ടത്തിൽ ...

	വിള	ഉത്പാദന ചെലവ് (ഹെക്ടറിന് രൂപ നിരക്കിൽ)	ഉത്പാദന മൂല്യം (ഹെക്ടറിന് രൂപ നിരക്കിൽ)	ലേബർ കോസ്റ്റ് അനുപാതം	മെറ്റീരിയൽ കോസ്റ്റ് അനുപാതം
	വിരിപ്പ്	82488	117719	56.50	34.65
	നെല്ല് മുണ്ടകൻ	78596	124919	56.31	35.31
	പുഞ്ച	74874	137325	51.53	40.68
	തെങ്ങ്	97530	158504	61.65	28.56
	കമുകി	151488	391209	58.59	31.85
	മരച്ചീനി	174039	564427	51.6	39.74
	ഏത്തവാഴ	260472	663508	39.11	52.88
	കുരുമുളക്	98183	270051	61.48	28.04
	ഇഞ്ചി	273571	1160056	30.98	59.76
	മഞ്ഞൾ	159505	339370	43.38	47.08
	പൈനാപ്പിൾ	275663	628394	31.99	67.77
	വിരിപ്പ്	151897	457722	42.09	49.88
	പാവൽ മുണ്ടകൻ	153316	438945	42.08	49.40
	പുഞ്ച	168782	508169	43.04	48.63

	വിള	ഉത്പാദന ചെലവ് (ഹെക്ടറിന് രൂപ നൂറ്)	ഉത്പാദന മൂല്യം (ഹെക്ടറിന് രൂപ നൂറ്)	ലേബർ കോസ്റ്റ് അനുപാതം	മെറ്റീരിയൽ കോസ്റ്റ് അനുപാതം
	വിരിപ്പ്	162123	431854	42.05	49.57
	വള്ളിപ്പയർ മുണ്ടകൻ	152402	433545	43.46	47.78
	പുഞ്ച	136793	384463	32.01	34.17
	ഏലം	255152	589905	48.52	43.66
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CHAPTER 1

INTRODUCTION

1.1 Back ground

Agriculture plays a vital role in Kerala's economy and it has a significant role in the development process. Increasing profitability and reducing costs are the two main challenges that the farmers are facing. For this, it is crucial to understand how the cultivation costs change over time. For the purpose of developing and implementing agricultural sector policies, setting floor and support prices, and offering incentives to growers, a realistic evaluation of the cost of production and the value of the State's major crops is required. Also knowing the cost required to grow any crop is very useful for farmers to optimise their resource management, improve yield, and enhance the sustainability and profitability of crops.

Cost of cultivation study would also provide capital structures of the farm and input cost pertaining to cultivators for growing different crops. With this end in view, Government of Kerala in G.O (Rt) 466/76/Plg. dated. 27/10/1979 sanctioned to conduct a study on Cost of Cultivation of important crops in Kerala. The Cost of cultivation survey has been conducted in 38 selected taluks across 14 districts of Kerala since 1980-81. On the beginning, the survey has been conducted with 12 Agricultural Crops annually. As per the decision of the Technical Committee which held on 21/10/2020, 11 Vegetable Crops have been included in the Cost of Cultivation Survey for the year of 2020-21 in addition to the existing crops.

Twenty three Crops covered under the survey are given below:

Paddy (3 Seasons)	Ash Gourd (3 Seasons)
Coconut	Cucumber (3 Seasons)
Arecanut	Snake Gourd (3 Seasons)
Tapioca	Ladies Finger (3 Seasons)
Banana	Cabbage (3 Seasons)
Pepper	Carrot (3 Seasons)
Ginger	Potato (3 Seasons)
Turmeric	Beans (3 Seasons)
Pineapple	Beetroot (3 Seasons)
Bitter Gourd (3 Seasons)	Garlic (3 Seasons)
Cowpea (3 Seasons)	Tomato (3 Seasons)
Cardamom	

1.2 Objectives

The main objective of the survey is to produce reliable estimates on production cost involved in major agricultural crops in the state and to workout input cost ratio for computing state's GDP. Major perennial, annual and seasonal crops are covered in the survey with a breakup of cost incurring during various stages from sowing to harvest.

1.3 Period of the Survey:

The period of the survey was the Agricultural Year (July to June) 2023-24

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. Crop wise details and number of zones are given below.

Sl.No	Name of Crop	Number of Zones
1	Coconut, Arecanut	4
2	Paddy, Tapioca, banana, Pepper, Ginger, Turmeric, Pineapple, Cardamom	3
3	Cowpea, Bitter Gourd, Ash Gourd, Cucumber, Snake Gourd, Ladies Finger, Cabbage, Carrot, Potato, Beans, Beetroot, Garlic, Tomato	2

1.5 Selection of cultivators:

In selected Investigator zones, list of cultivators growing paddy in the previous autumn season is prepared based on the last years 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 autumn paddy. Similar procedure is adopted for the selection of cultivators for winter and summer season.

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

If sufficient number of suitable plots of other crops is not available among 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 plot 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.

1.6 Number of holdings selected for each crop in a Taluk

Sl no.	crop		Number of holdings
1	Paddy	Autumn	15 (5 holdings each from one Investigator Zone)
		Winter	
		Summer	
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 (Minimum 2 holdings in one Investigator Zone)
10	Bitter Gourd	Autumn	10 (5 holdings each from one Investigator Zone)
		Winter	
		Summer	
11	Cowpea	Autumn	10 (5 holdings each from one Investigator Zone)
		Winter	
		Summer	
12	Cardamom		15 (5 holdings each from one Investigator Zone)
13	Ash Gourd	Autumn	10 (5 holdings each from one Investigator Zone)
		Winter	
		Summer	
14	Cucumber	Autumn	10 (5 holdings each from one Investigator Zone)
		Winter	
		Summer	
15	Snake Gourd	Autumn	10 (5 holdings each from one Investigator Zone)
		Winter	
		Summer	
16	Ladies Finger	Autumn	10 (5 holdings each from one Investigator Zone)
		Winter	
		Summer	

17	Cabbage	Autumn	10 (5 holdings each from one Investigator Zone)
		Winter	
		Summer	
18	Carrot	Autumn	10 (5 holdings each from one Investigator Zone)
		Winter	
		Summer	
19	Potato	Autumn	10 (5 holdings each from one Investigator Zone)
		Winter	
		Summer	
20	Beans	Autumn	10 (5 holdings each from one Investigator Zone)
		Winter	
		Summer	
21	Beetroot	Autumn	10 (5 holdings each from one Investigator Zone)
		Winter	
		Summer	
22	Garlic	Autumn	10 (5 holdings each from one Investigator Zone)
		Winter	
		Summer	
23	Tomato	Autumn	10 (5 holdings each from one Investigator Zone)
		Winter	
		Summer	

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 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 holdings. 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 Crop	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

1.7 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

1.8 Field work

Data collected from 38 Taluks. One Investigator/ enumerator is posted in each Taluk for this purpose. The investigators visited the selected holding/ cultivators every fortnight/three weeks/one month/two month and recorded fortnightly details of agricultural operations in schedule 5. Periodicity of visit will vary according to the type of crop. Periodicities of visit are given below.

Sl.No	Name of Crop	Periodicity
1	Cowpea, Bitter Gourd, Ash Gourd, Cucumber, Snake Gourd, Ladies Finger, Cabbage, Carrot, Potato, Beans, Beetroot, Garlic, Tomato	Fortnight
2	Paddy	Three Weeks
3	Cardamom	One month
4	Coconut, Arecanut, Pepper, Tapioca, Banana, Ginger, Turmeric, Pineapple	Two months

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

1.9 Processing and Analysis of Data:

The data entry and tabulation sheet preparation were done at Taluk level in DESCAS software. The compilation and preparation of District tabulation sheet were done at the district office and the report preparation and analysis were done at the Directorate.

1.10 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. Farmyard 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 and land reported by the Land Revenue 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	Implement	:	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 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	:	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 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	Implemants 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 of agricultural land.

I.11 Terms and Definitions

- ❖ **Input cost** :- Cost A (Paid out cost)
- ❖ **Output cost**:- Product/Byproduct cost
- ❖ **Input-output cost ratio**:- This ratio indicates the return from cultivation per unit of investment as input cost. Higher the value of input output ratio implies the higher return from the cultivation process. It is obtained by dividing output cost by input cost.

$$\text{Input output cost ratio} = \left(\frac{\text{Output cost}}{\text{Input cost}} \right)$$

- ❖ **Labour Cost Ratio:**- This ratio indicates the proportion of labour costs (which include human labour, animal labour and machine labour) to the total cost Cost A. It reflects the farm's dependence on labour and can provide insights into labour efficiency.

$$\text{Labour Cost Ratio} = \left(\frac{\text{Total Hired Human Labour} + \text{Animal labour} + \text{Machine labour}}{\text{total cost A}} \right) \times 100$$

- ❖ **Costing materials used Ratio (Material cost ratio):**- This ratio represents the proportion of seed/seedlings, Manures & fertilisers, plant protection and Miscellaneous expenses to the total cost.

$$\text{Material cost Ratio} = \left(\frac{\text{seed/seedlings} + \text{Manures \& fertilisers} + \text{plant protection} + \text{other expense}}{\text{total cost A}} \right) \times 100$$

CHAPTER 2

A COMPREHENSIVE ANALYSIS OF COST OF CULTIVATION OF MAJOR CROPS

2.0 Introduction

One significant element influencing the profitability of agriculture in Kerala is Cost of Cultivation. The cost of Cultivation survey covers 23 crops during each agricultural year. Here we have considered the cost of cultivation and production data of 19 crops namely, Paddy (autumn, winter and summer), Coconut, Arecanut, Tapioca, Banana, Pepper, Ginger, Turmeric, Pineapple, Cardamom and Bitter gourd, Cowpea, Ash Gourd, Snake Gourd, Ladies Finger, Cucumber, Cabbage(winter), Tomato (3 seasons), Beans (summer) available through field-level data collection for the whole agriculture year 2023-24. The items of cost of cultivation cover both imputed cost and paid out costs (Cost A). Data was collected from a sample of **8,708** selected farmers covering a total of **3,447.34** hectares of land.

This report estimates the cost and production per hectare of the 19 selected crops and using this data, a comparison of the cost of cultivation of each crop over a period of time is also included. Along with this, agricultural cost ratios such as labour cost ratio and material cost ratio are also calculated using the data. From the data it is evident that the expense of growing Ginger (₹273571.) and Pineapple (₹ 275663) is much greater than that of other crops. Compared to other crops, vegetables are typically less expensive to grow. Summer paddy is the most expensive, whereas autumn and winter paddy farming is typically less expensive. Seasonal variations influence the cost and returns of several vegetable crops, with noticeable differences between autumn, winter, and summer seasons, particularly for crops such as bitter gourd, ash gourd, cucumber, snake gourd, ladies finger, and tomato.

A comprehensive analysis of these 19 selected crops are given below .

2.1.1 Paddy-Autumn (Virippu)**2.1.1.1 Area under Paddy-Autumn Cultivation**

Details of holding selected and area coverage for this study are given below. The data collected from 438 holdings according to the size class by covering 353.28 hectares of land.

Table 2.1.1.1: Number of holdings and area under Autumn Paddy (Virippu)

Holding size class	Sample size (no.s)	Area under the crop in the sample (ha)	Percentage Area	Average Area Per holding(ha)
Small	209	45.64	13	0.22
Medium	174	142.11	40	0.82
Large	55	165.53	47	3.01
Total	438	353.28	100	0.81

2.1.1.2 Cost of cultivation

The componentwise estimated cost of cultivation per hectare of Paddy Autumn is furnished in the below table.

Table 2.1.1.2: Cost of Cultivation per hectare(in Rs.) of Autumn Paddy (Virippu)

Sl.No	Components	Holding Size Class			
		Small	Medium	Large	All Sizes
1	Hired human labour	44341	32595	26785	31412
2	Animal labour	0	0	0	0
3	Machine labour	14436	16568	14256	15196
4	Seed / seedlings	3813	6086	3862	4750
5	Farm yard manure and chemical fertilizers	10510	9066	9785	9584
6	Plant Protection	1378	2100	3059	2454
7	Land tax and irrigation cess	421	332	221	291
8	Repair and maintenance charges of implements, machinery and building	1747	461	555	670
9	Interest on working capital	7448	6642	5775	6340
10	Other expenses	9946	10609	13282	11791
11	Total cost'A'(1-10)	94040	84458	77580	82488
12	Interest on fixed capital	7567	2415	1163	2485

13	Cost'B1'(11+12)	101607	86873	78743	84973
14	Interest on land value	351352	351495	331344	342003
15	Cost'B'(13+14)	452959	438368	410087	426976
16	Inputed value of household labour	17618	8228	4464	7668
17	Cost'C'(15+16))	470577	446595	414551	434644

Figure 2.1.1.1: Percentage Distribution of Cost A per hectare of Autumn Paddy (Virippu) during 2023-24

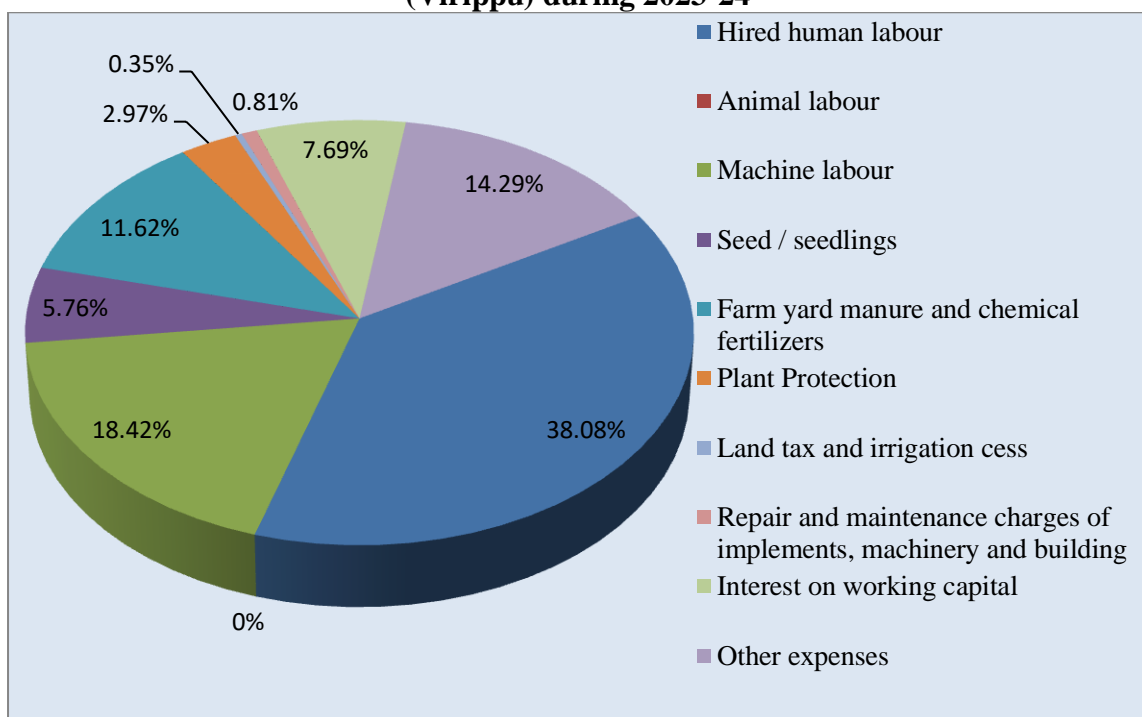


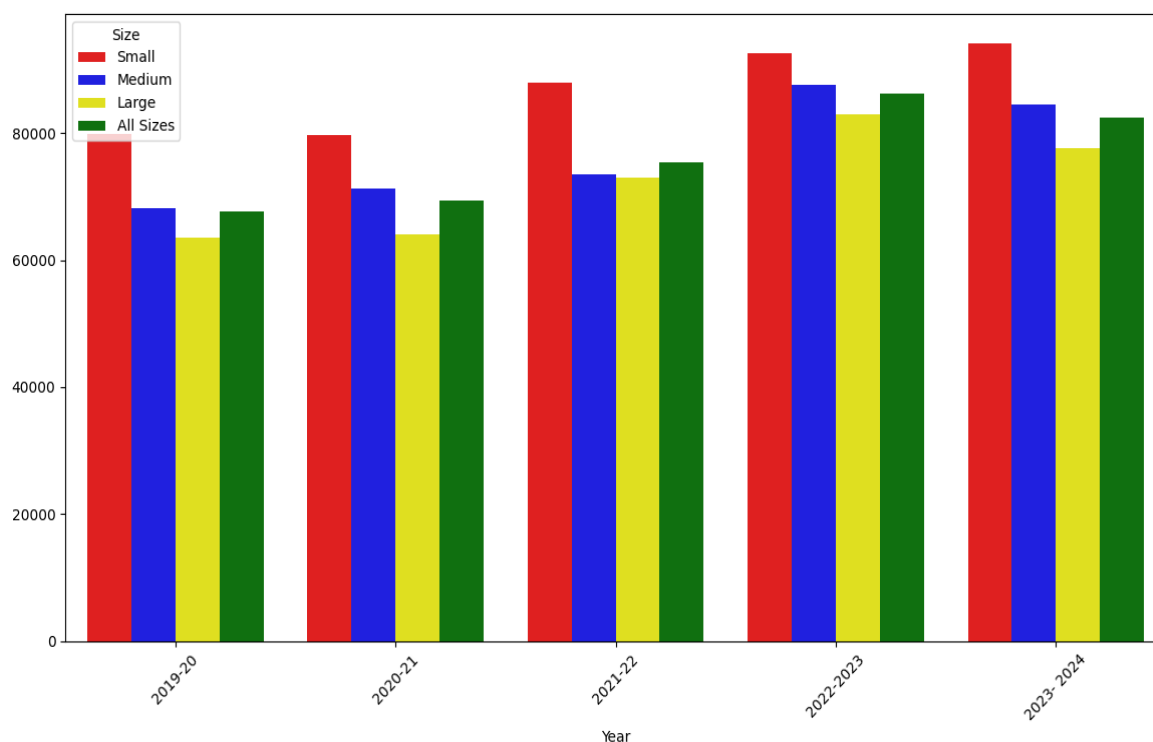
Table 2.1.1.3: Percentage of hired human labour hours to total labour hours of Autumn Paddy (Virippu) during 2023-24

Sex	Holding Size Class			
	Small	Medium	Large	All Sizes
Male	34.5	43.81	53.55	45.31
Female	36.44	38.26	39.89	34.02
Total	70.94	82.07	93.44	79.33

Table 2.1.1.4: Cost of cultivation of Autumn Paddy (Virippu) per hectare (in Rs.) from 2019-20 to 2023-24

Holding size class	Cost A(Rs.)				
	2019-20	2020-21	2021-22	2022-23	2023-24
Small	79860	79661	87849	92609	94040
Medium	68127	71318	73468	87529	84458
Large	63598	63977	72910	82899	77580
All Sizes	67722	69344	75430	86182	82488

Figure 2.1.1.2: Cost of cultivation of Autumn Paddy (Virippu) per hectare (in Rs.) from 2019-20 to 2023-24



2.1.1.3 Cost of production of paddy per quintal

Cost of production of paddy per quintal estimated by dividing the cost of cultivation per hectare by the quantity of paddy produced per hectare. Details are given below:

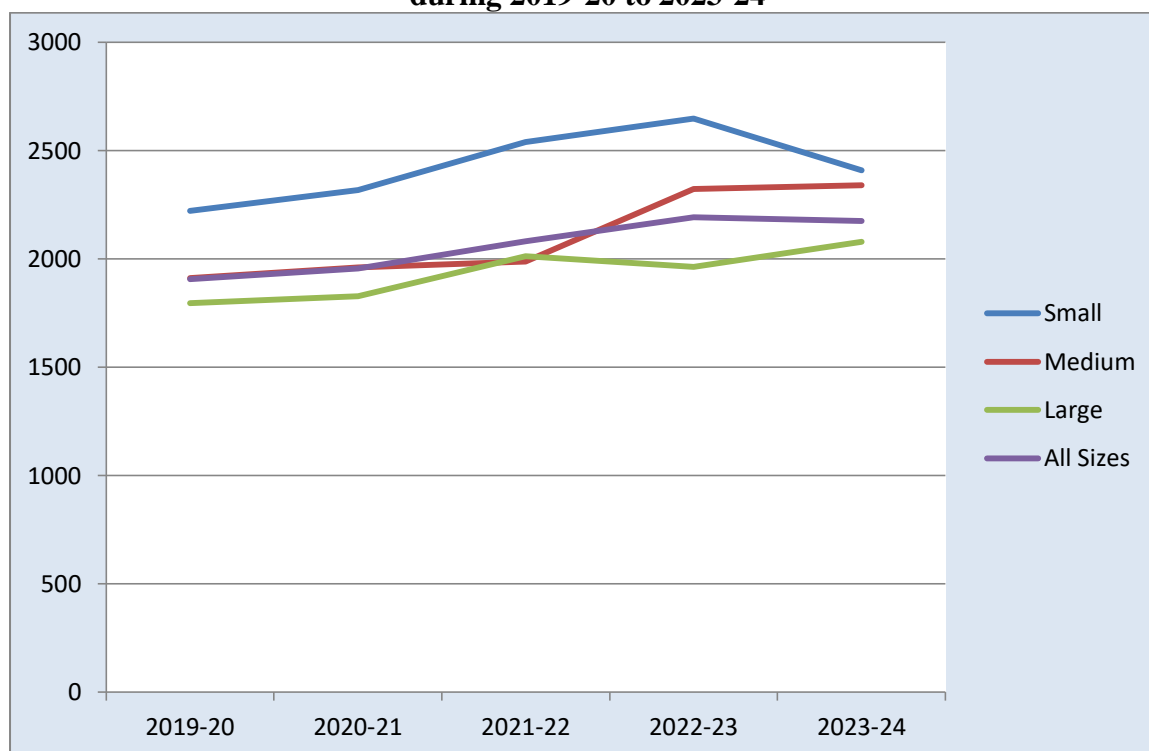
Table 2.1.1.5: Per Quintal Cost (in Rs.) of Production of Paddy Autumn during 2023-24

Concept of Cost	Year	Holding Size Class			
		Small	Medium	Large	All Sizes
CostA	2023-24	2409	2339	2080	2176
CostB		15327	15987	19090	17949
CostC		15915	16279	19217	17791

Table 2.1.1.6 : Cost of cultivation of Autumn Paddy (Virippu) per quintal (in Rs.) from 2019-20 to 2023-24

Holding size class	Value of Output (in Rs.)				
	2019-20	2020-21	2021-22	2022-23	2023-24
Small	2223	2317	2540	2648	2409
Medium	1911	1960	1989	2324	2339
Large	1795	1827	2013	1964	2080
All Sizes	1906	1955	2081	2193	2176

Figure 2.1.1.3: Cost of cultivation of Autumn Paddy (Virippu) per quintal (in Rs.) during 2019-20 to 2023-24



2.1.1.4. Value of output

Details of product and by product for the year 2023-24 are given below.

Table 2.1.1.7: Value of output during the year 2023-24

Year	Holding size class	Product/Byproduct (in Rs.)		
		Paddy	Straw	Total
2023-24	Small	106889	24745	131634
	Medium	101382	16117	117499
	Large	107466	6824	114290
	All Sizes	104855	12863	117719

Table 2.1.1.8: Input cost, output cost and Input-output ratio of Autumn Paddy (Virippu) per hectare (in Rs.) from 2019 -20 to 2023-24

Year	Components		
	Input Cost(Rs.)	Output Cost(Rs.)	Input-output ratio
2019-20	67722	101978	1.51
2020-21	69344	105174	1.52
2021-22	75430	111132	1.47
2022-23	86182	121585	1.41
2023-24	82488	117719	1.43

Figure 2.1.1.4: Input cost, output cost and Input-output ratio of Autumn Paddy (Virippu) per hectare (in Rs.) from 2019 -20 to 2023-24

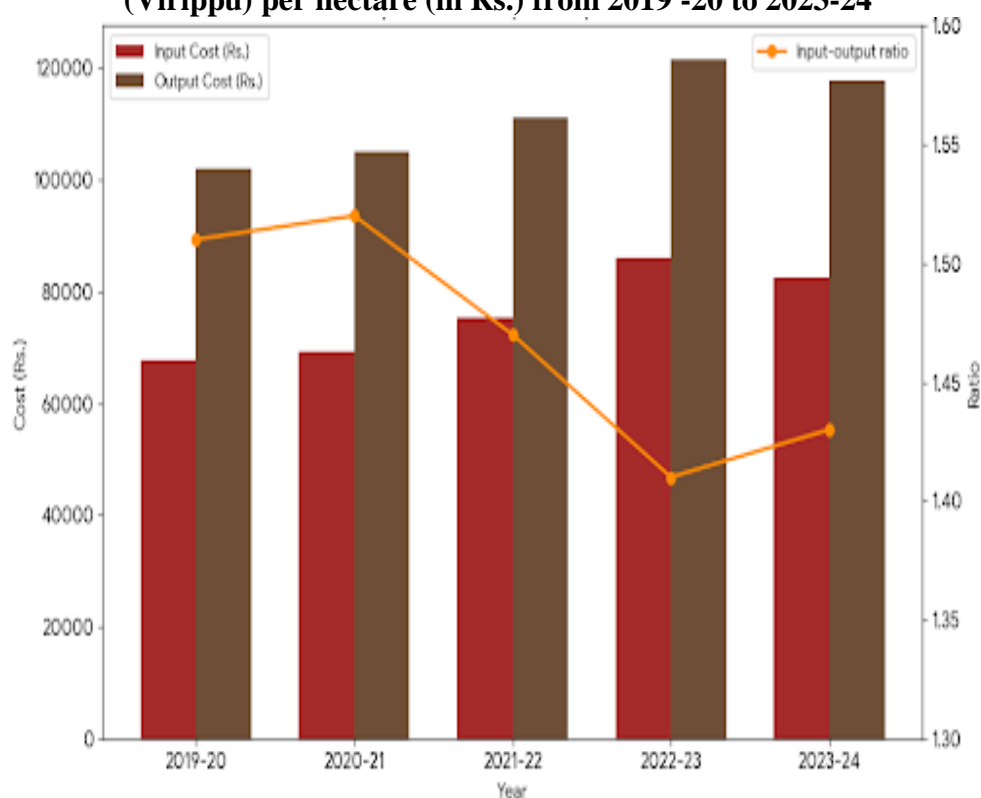
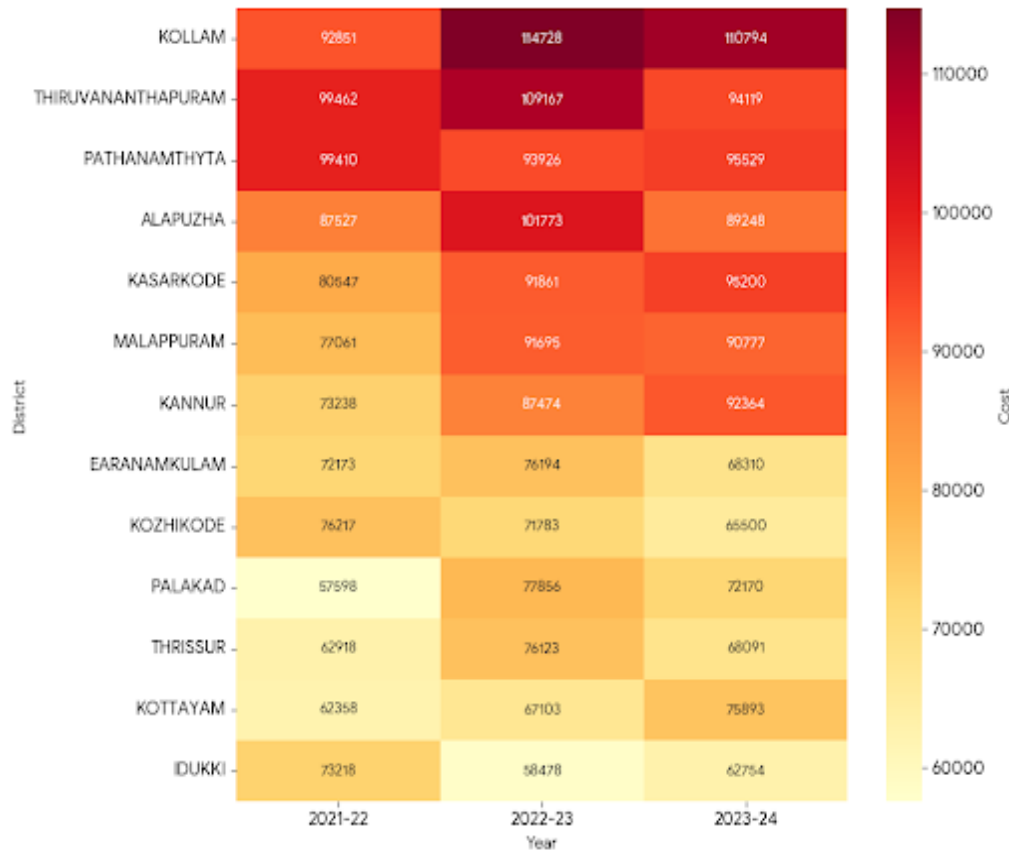


Table 2.1.1.9: District wise Cost of Cultivation (In Rs.) Per Hectare of Paddy Autumn from 2021-22 to 2023-24

DISTRICTS	COST A		
	2021-22	2022-23	2023-24
Thiruvananthapuram	99462	109167	94119
Kollam	92851	114728	110794
Pathanamthitta	99410	93926	95529
Alappuzha	87527	101773	89248
Kottayam	62358	67103	75893
Idukki	73218	58478	62754
Ernakulam	72173	76194	68310
Thrissur	62918	76123	68091
Palakkad	57598	77856	72170
Malappuram	77061	91695	90777
Kozhikode	76217	71783	65500
Kannur	73238	87474	92364
Kasargod	80547	91861	95200

Figure 2.1.1.5: District wise Cost of Cultivation (In Rs.) Per Hectare of Paddy Autumn from 2021-22 to 2023-24



2.1.2 Paddy -Winter (Mundakan)

2.1.2.1 Area under Winter Paddy (Mundakan) Cultivation

The details of the holdings selected for this study and the area covered are outlined below. Data was collected from 506 holdings, spanning a total of 530.36 hectares.

Table 2.1.2.1: Number of holdings and area under winter paddy (mundakan)

Holding size class	Sample size (No.s)	Area under the crop in the sample(ha)	Percentage Area	Average Area Per holding(ha)
Small	221	49.67	9	0.22
Medium	201	169.17	32	0.84
Large	84	311.52	59	3.71
Total	506	530.36	100	1.05

2.1.2.2 Cost of cultivation

The componentwise estimated cost of cultivation per hectare of Paddy Winter is furnished in the below table.

Table 2.1.2.2: Cost of Cultivation per hectare (in Rs.) of Winter Paddy (Mundakan)

Sl.No	Components	Holding SizeClass			
		Small	Medium	Large	All Sizes
1	Hired human labour	44221	33645	23044	28409
2	Animal labour	0	0	0	0
3	Machine labour	17034	15749	15720	15852
4	Seed/seedlings	3955	3887	3843	3868
5	Farmyard manure and chemical fertilizers	13368	10138	8388	9412
6	Plant Protection	1563	2352	2314	2256
7	Land tax and irrigation cess	424	333	254	295
8	Repair and maintenance charges of implements, machinery and building	681	344	238	313
9	Interest on working capital	8014	6577	5331	5980
10	Other expenses	10460	12239	12476	12212
11	Total cost 'A'(1-10)	99720	85264	71608	78596
12	Interest on fixed capital	1957	1658	841	1206
13	Cost 'B1'(11+12)	101677	86921	72449	79802
14	Interest on land value	380793	380537	326523	348834
15	Cost 'B'(13+14)	482470	467459	398972	428637
16	Inputed value of household labour	17009	8472	3950	6615
17	Cost 'C'(15+16)	499479	475931	402922	435252

Figure 2.1.2.1: Percentage Distribution of Cost A per hectare of Winter Paddy (Mundakan) during 2023-24

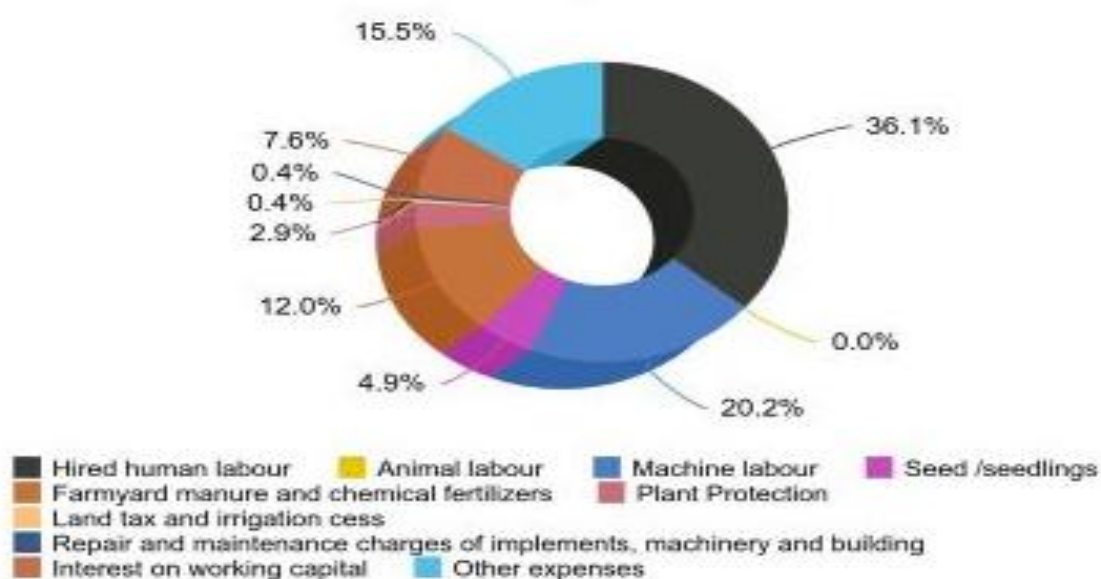


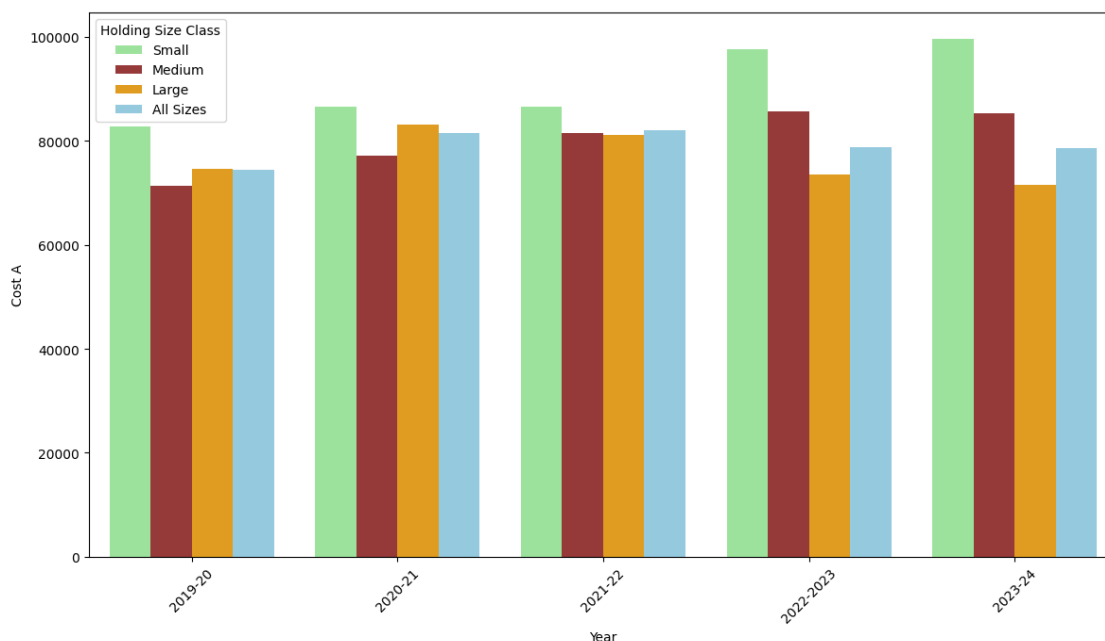
Table 2.1.2.3: Percentage of hired human labour hours to total labour hours of Winter Paddy (Mundakan during 2023 – 24

Sex	Holding Size Class			
	Small	Medium	Large	All Sizes
Male	38.1	38.2	54.78	45.38
Female	36.26	34.41	39.4	31.54
Total	74.36	72.61	94.18	76.92

Table 2.1.2.4: Cost of cultivation of Winter Paddy (Mundakan) per hectare (inRs.) from 2019 -20 to 2023-24

Holding size class	Cost A				
	2019-20	2020-21	2021-22	2022-23	2023-24
Small	82806	86514	86589	97589	99720
Medium	71434	77149	81567	85617	85264
Large	74712	83079	81216	73586	71608
All Sizes	74401	81572	82025	78792	78596

Figure 2.1.2.2: Cost of cultivation of Winter Paddy (Mundakan) per hectare (in Rs.) from 2019- 20 to 2023-24



The last five year data shows that there occurred fluctuations in the cost of cultivation of Winter Paddy. From the above table it is clear that cultivators belongs to small holding has higher cost as compare to other holdings.

2.1.2.3 Cost of production of Winter Paddy (Mundakan) per quintal

Cost of production of paddy per quintal estimated by dividing the cost of cultivation per hectare by the quantity of paddy produced per hectare.

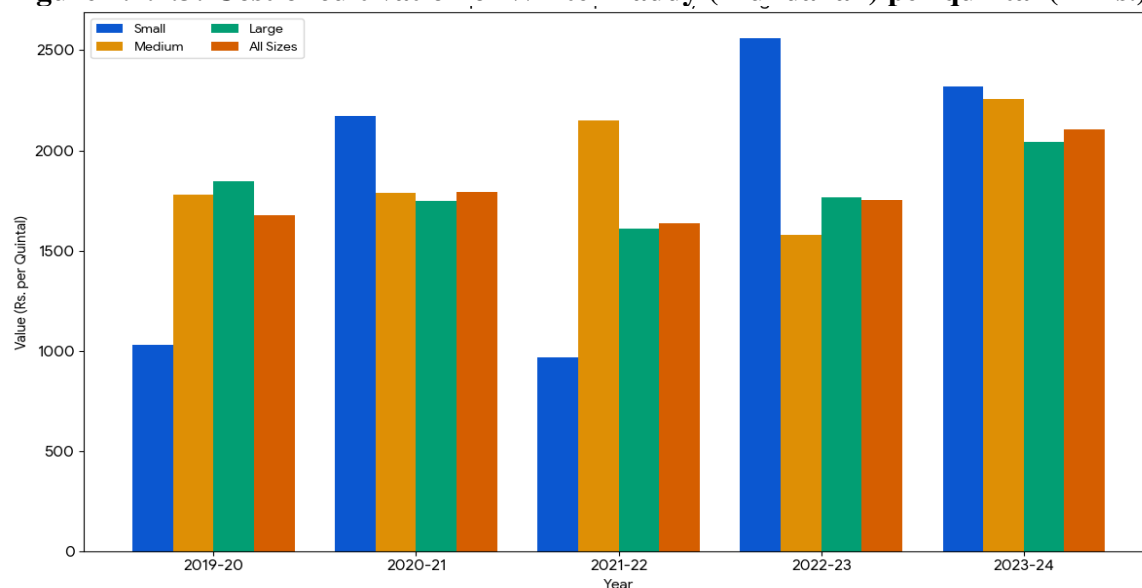
Table.2.1.2.5 Per Quintal Cost (In Rs.) of Production of Winter Paddy (Mundakan) during 2023 – 2024

Concept of Cost	Year	Holding Size Class			
		Small	Medium	Large	All Sizes
CostA	2023 - 24	2320	2255	2042	2105
CostB	2023 - 24	12137	12070	15093	14290
CostC	2023 - 24	12638	12381	15194	14098

Table 2.1.2.6: Cost of cultivation of Winter Paddy (Mundakan) per quintal (in Rs.) from 2019 -20 to 2023-24

Holding size class	Value of Output (in Rs.) per quintal				
	2019-20	2020-21	2021-22	2022-23	2023-24
Small	1029	2172	967	2560	2320
Medium	1778	1786	2148	1577	2255
Large	1846	1749	1610	1768	2042
All Sizes	1675	1793	1635	1751	2105

Figure 2.1.2.3: Cost of cultivation of Winter Paddy (Mundakan) per quintal (in Rs.)



2.1.2.4 Value of output

Details of product and byproduct for the year 2023-24 is given below.

Table 2.1.2.7: Value of output during the year 2023-24

Year	Holding size class	Product/Byproduct (in Rs.)		
		Paddy	Straw	Total
2023-24	Small	109194	24555	133749
	Medium	107112	18749	125861
	Large	110183	12816	122999
	All Sizes	109111	15808	124919

Table.2.1.2.8: Input cost, Output cost and Input-output ratio of Winter Paddy (Mundakan) per hectare (in Rs.) from 2019-20 to 2023-24

Year	Components		
	Input Cost	Output Cost	Input-output ratio
2019-20	74401	119186	1.60
2020-21	81572	142677	1.75
2021-22	82025	120113	1.46
2022-23	78792	131600	1.67
2023-24	78596	124919	1.59

Figure 2.1.2.4: Input cost, output cost and Input-output ratio of Winter Paddy (Mundakan) per hectare (in Rs.) from 2019 -20 to 2023-24

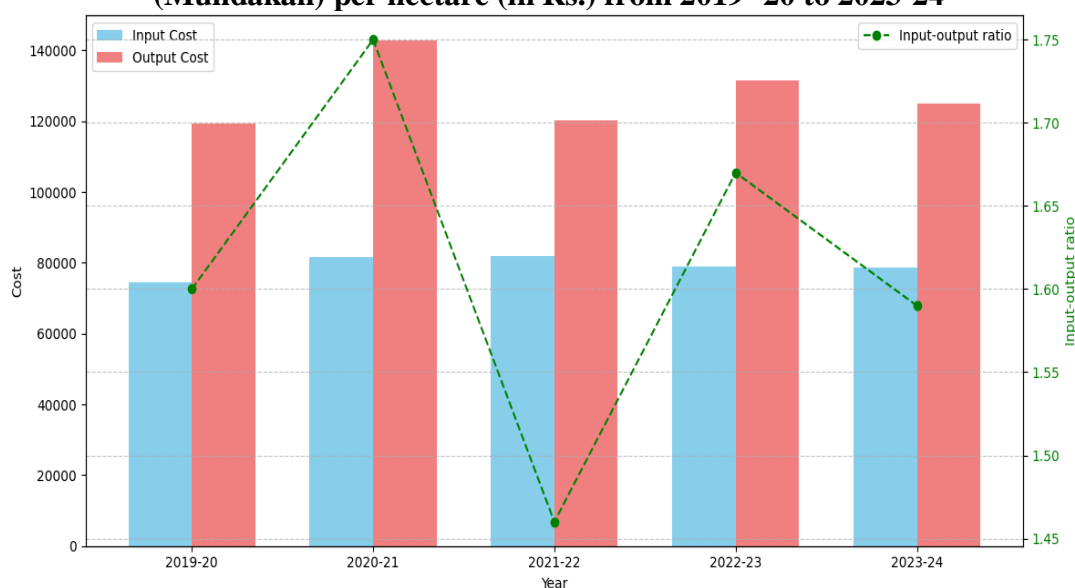
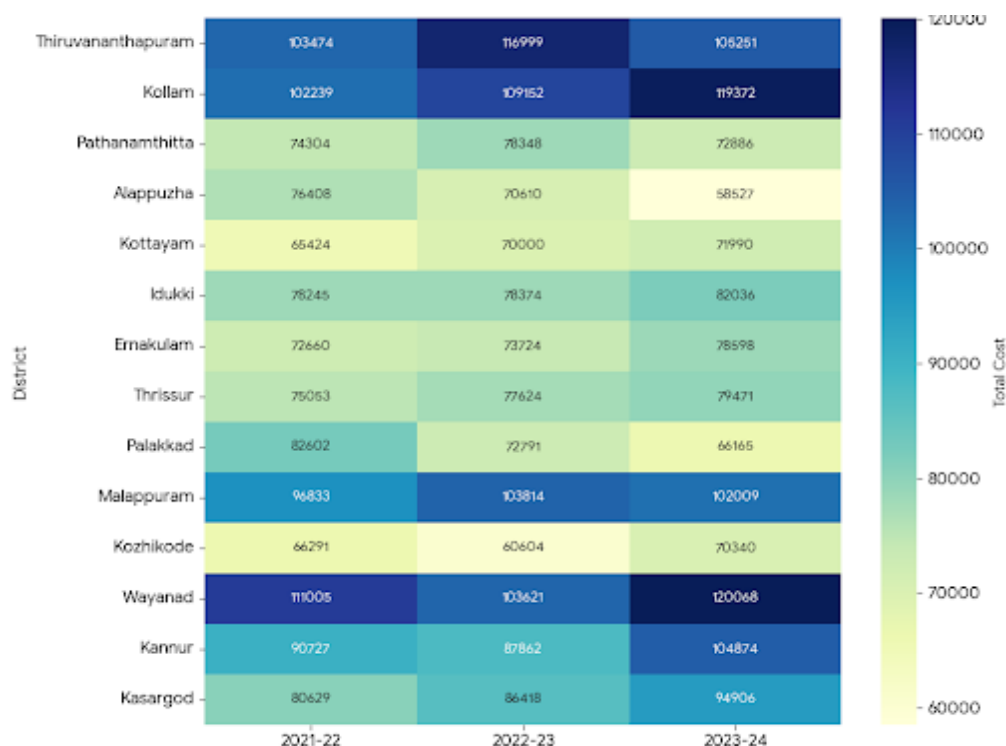


Table.2.1.2.9: District wise Cost of Cultivation (In Rs.) Per Hectare of Winter Paddy (Mundakan) from 2021-22 to 2023-24

District	COST A		
	2021-22	2022-23	2023-24
Thiruvananthapuram	103474	116999	105251
Kollam	102239	109152	119372
Pathanamthitta	74304	78348	72886
Alappuzha	76408	70610	58527
Kottayam	65424	70000	71990
Idukki	78245	78374	82036
Ernakulam	72660	73724	78598
Thrissur	75053	77624	79471
Palakkad	82602	72791	66165
Malappuram	96833	103814	102009
Kozhikode	66291	60604	70340

Wayanad	111005	103621	120068
Kannur	90727	87862	104874
Kasargod	80629	86418	94906

Figure 2.1.2.5: District wise Cost of Cultivation (In Rs.) Per Hectare of of Winter Paddy (Mundakan) from 2021-22 to 2023-24



2.1.3 Paddy-Summer (Puncha)

2.1.3.1 Area under Summer Paddy (Puncha) Cultivation

The details of the holdings selected and the area covered for this study are as follows. Data was collected from 457 holdings, covering a total area of 800.53 hectares.

Table 2.1.3.1: Number of holdings and area under Summer Paddy (Puncha)

Holding size class	Sample size (No.s)	Area under the crop inThe sample (ha)	Percentage Area	Average Area Per Holding (ha)
Small	175	42.01	5	0.24
Medium	183	164.45	21	0.90
Large	99	594.07	74	6.00
Total	457	800.53	100	1.75

2.1.3.2 Cost of cultivation

The estimated cost of cultivation of different items per hectare of Summer Paddy (Puncha) is furnished in the following table.

Table 2.1.3.2: Cost of Cultivation per hectare (in Rs.) of Summer Paddy (Puncha)

Sl. No	Components	Holding Size Class			
		Small	Medium	Large	All Sizes
1	Hired human labour	41461	30870	22557	25257
2	Animal labour	0	0	0	0
3	Machine labour	17041	15711	12406	13328
4	Seed / seedlings	8130	3711	4954	4865
5	Farmyard manure and chemical fertilizers	12588	10267	7790	8550
6	Plant Protection	2061	2260	2065	2105
7	Land tax and irrigation cess	470	303	181	221
8	Repair and maintenance charges of implements, machinery and building	663	248	158	203
9	Interest on working capital	8128	6282	4977	5411
10	Other expenses	10686	13011	15767	14934
11	Total cost 'A' (1-10)	101229	82663	70854	74874
12	Interest on fixed capital	3201	1307	258	628
13	Cost 'B1' (11+12)	104430	83971	71112	75502
14	Interest on land value	569038	287459	259871	281763
15	Cost 'B' (13+14)	673468	371430	330983	357265
16	Inputed value of household labour	20291	9295	2757	5020
17	Cost 'C' (15+16)	693759	380725	333740	362286

Figure 2.1.3.1: Cost of Cultivation per hectare (in Rs.) of Summer Paddy (Puncha)

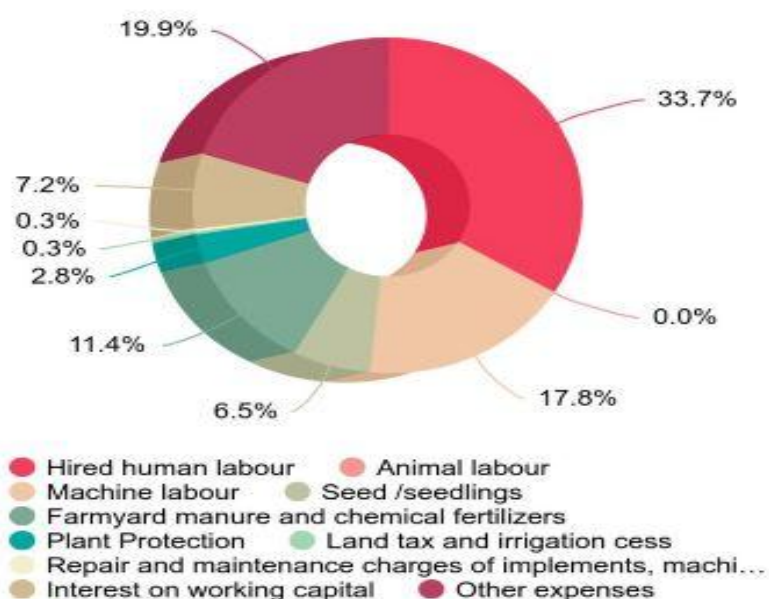


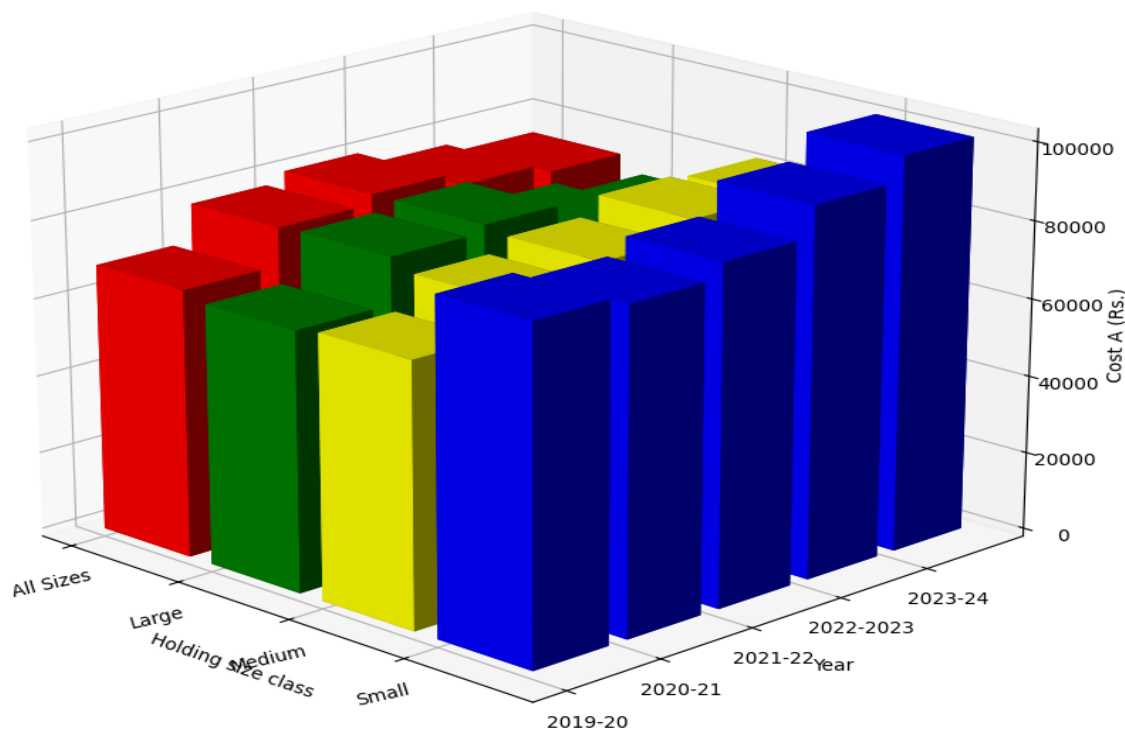
Table 2.1.3.3: Percentage of hired human labour hours to total labour hours of Summer Paddy (Puncha) during 2023-24

Sex	Holding Size Class			
	Small	Medium	Large	All Sizes
Male	29.06	48.52	66.42	56.79
Female	27.08	35.54	40.08	24.57
Total	56.14	84.06	106.5	81.36

Table 2.1.3.4: Cost of cultivation of Summer Paddy (Puncha) per hectare(in Rs.) from 2019 -20 to 2023-24

Holding size class	Cost A (Rs.)				
	2019-20	2020-21	2021-22	2022-23	2023-24
Small	85604	83295	87069	94903	101229
Medium	67893	75978	79174	83677	82663
Large	66740	78813	80687	74440	70854
All Sizes	68703	78285	80802	77261	74874

Figure 2.1.3.2: Cost of cultivation of Summer Paddy (Puncha) per hectare (in Rs.) from 2019 -20 to 2023-24



2.1.3.3 Cost of production of paddy per quintal

Cost of production of paddy per quintal estimated by dividing the cost of cultivation per hectare by the quantity of paddy produced per hectare. Details are given below:

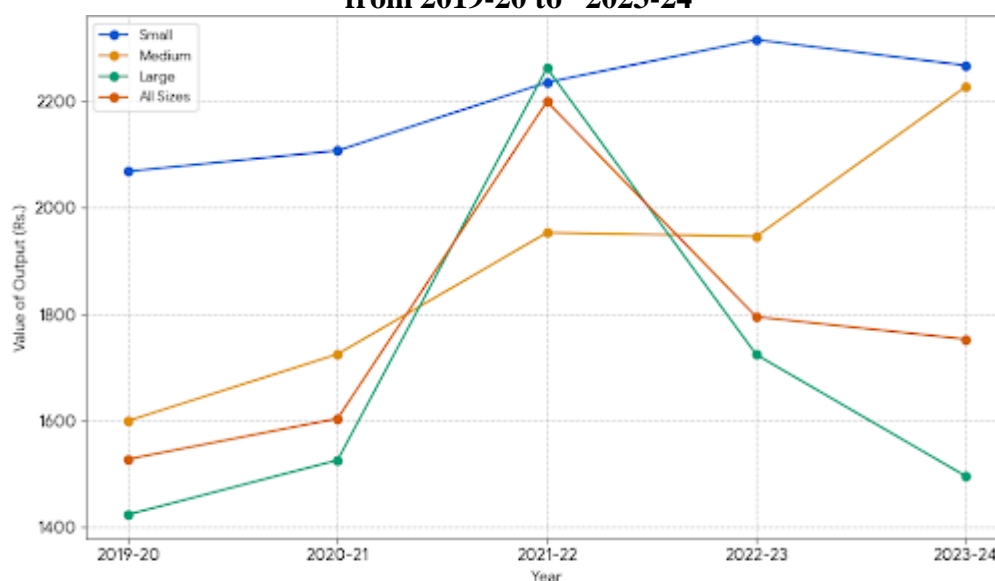
Table 2.1.3.5 Per Quintal Cost (In Rs.) of Production of Summer Paddy (Puncha) during 2023 –24

Concept of Cost	Year	Holding Size Class			
		Small	Medium	Large	All Sizes
CostA	2023 –24	2267	2227	1496	1753
CostB	2023 –24	6368	10711	10597	10271
CostC	2023 –24	7006	11003	10664	10148

Table 2.1.3.6: Cost of cultivation of Summer Paddy (Puncha) per quintal (in Rs.) from 2019 -20 to 2023-24

Holding size class	Value of output (Rs.)				
	2019-20	2020-21	2021-22	2022-23	2023-24
Small	2068	2107	2235	2315	2267
Medium	1600	1725	1953	1946	2227
Large	1424	1526	2262	1724	1496
All Sizes	1528	1604	2199	1795	1753

Figure 2.1.3.3: Cost of cultivation of Summer Paddy (Puncha) per quintal (in Rs.) from 2019-20 to 2023-24



2.1.3.4 Value of output

Details of product and by product for the year 2023 – 2024 is given below.

Table 2.1.3.7: Value of output during the year 2023-24

Year	Holding size class	Product/Byproduct (in Rs.)		
		Paddy	Straw	Total
2023-24	Small	120852	20713	141565
	Medium	121948	14719	136667
	Large	125287	11920	137207
	All Sizes	124368	12956	137325

Table 2.1.3.8: Input cost, output cost and Input-output ratio of Summer Paddy (Puncha) per hectare (in Rs.) from 2019 -20 to 2023-24

Year	Components		
	Input Cost (Rs.)	Output Cost (Rs.)	Input-output ratio
2019-20	68703	129568	1.89
2020-21	78285	145188	1.85
2021-22	80802	111351	1.38
2022-23	77261	139274	1.80
2023-24	74874	137325	1.83

Figure 2.1.3.4: Input cost, output cost and Input-output ratio of Summer Paddy (Puncha) per hectare (in Rs.) from 2019 -20 to 2023-24

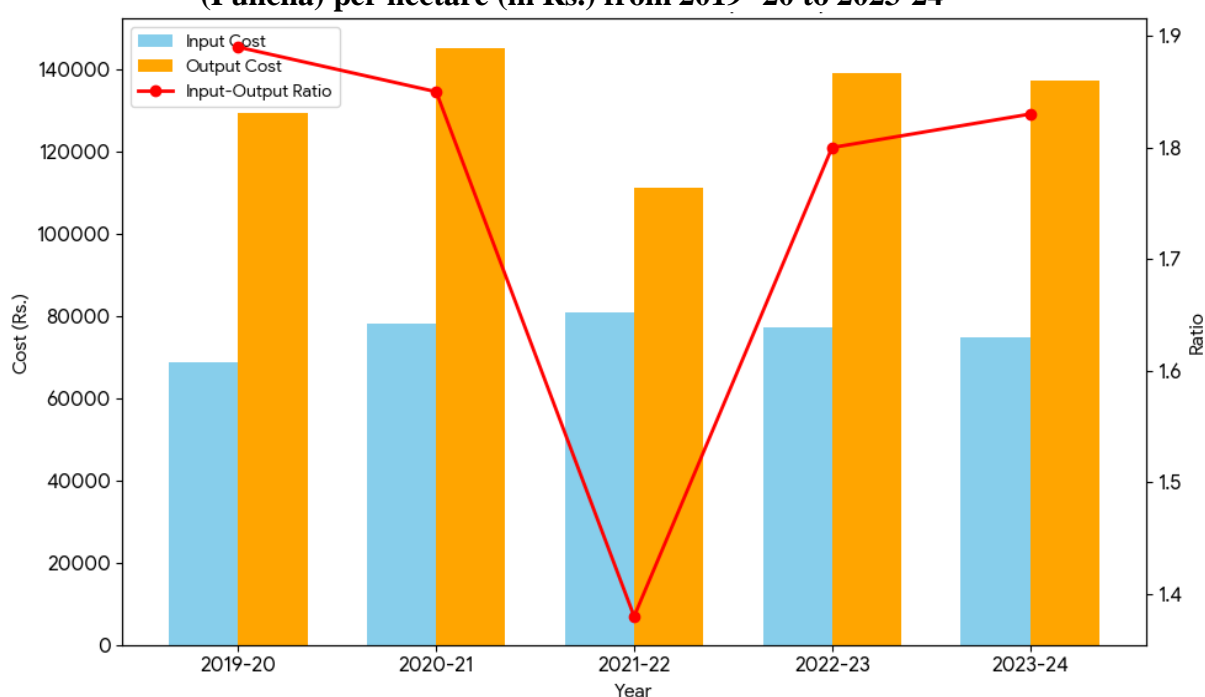
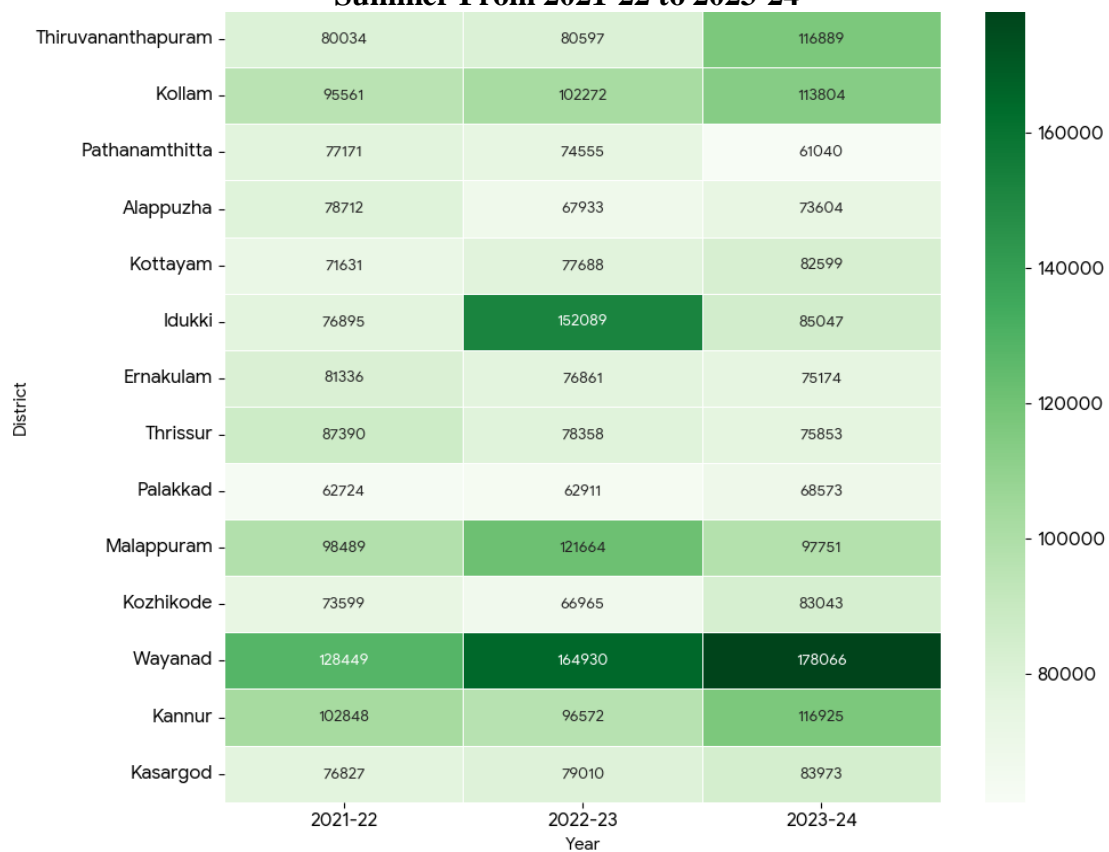


Table 2.1.3.9: District wise Cost of Cultivation (In Rs.) Per Hectare of Paddy Summer From 2021-22to 2023-24

DISTRICT	Cost A		
	2021-22	2022-23	2023-24
Thiruvananthapuram	80034	80597	116889
Kollam	95561	102272	113804
Pathanamthitta	77171	74555	61040
Alappuzha	78712	67933	73604
Kottayam	71631	77688	82599
Idukki	76895	152089	85047
Ernakulam	81336	76861	75174
Thrissur	87390	78358	75853
Palakkad	62724	62911	68573

Malappuram	98489	121664	97751
Kozhikode	73599	66965	83043
Wayanad	128449	164930	178066
Kannur	102848	96572	116925
Kasargod	76827	79010	83973

Figure 2.1.3.5: District wise Cost of Cultivation (In Rs.) Per Hectare of Paddy Summer From 2021-22 to 2023-24



2.2

COCONUT

2.2.1 Area under Coconut cultivation during 2023-24

As compared to previous years, total area of coconut during the period 2023-24 is 329.83 Ha which is higher as compared to 2022-23 which is 316.38Ha.

Table 2.2.1: Number of holdings and area under Coconut

Holding size class	No of selected Holdings	Area under the crop in the sample (ha)	Percentage Area	Average Area Per holding (ha)
Small	263	37.64	11	0.14
Medium	366	131.12	40	0.36
Large	131	161.07	49	1.23
Total	760	329.83	100	0.43

2.2.2 Cost of cultivation

The estimated cost of cultivation of different items per hectare of Coconut is furnished in the below table.

Table 2.2.2: Cost of Cultivation per hectare (in Rs.) of Coconut

Sl.No	Components	Holding Size Class			
		Small	Medium	Large	All Sizes
1	Hired human labour	65027	58631	58720	59344
2	Animal labour	0	0	0	0
3	Machine labour	357	413	1202	785
4	Seed /seedlings	52	233	131	162
5	Farmyard manure and chemical fertilizers	22829	21463	24521	23117
6	Plant Protection	65	58		30
7	Land tax and irrigation cess	733	829	822	814
8	Repair and maintenance charges of implements, machinery and building	799	476	225	389
9	Interest on working capital	8833	8080	8457	8344
10	Other expenses	4336	4643	4563	4545
11	Total cost 'A'(1-10)	103032	94825	98641	97530
12	Interest on fixed capital	6002	4912	4313	4715
13	Cost 'B1'(11+12)	109034	99737	102954	102245
14	Interest on land value	1061150	1258775	825231	1021802
15	Cost 'B'(13+14)	1170184	1358512	928186	1124047
16	Inputed value of household labour	15972	10201	5379	8517
17	Cost 'C'(15+16)	1186156	1368713	933565	1132564

Figure 2.2.1: Cost of Cultivation per hectare (in Rs.) of Coconut

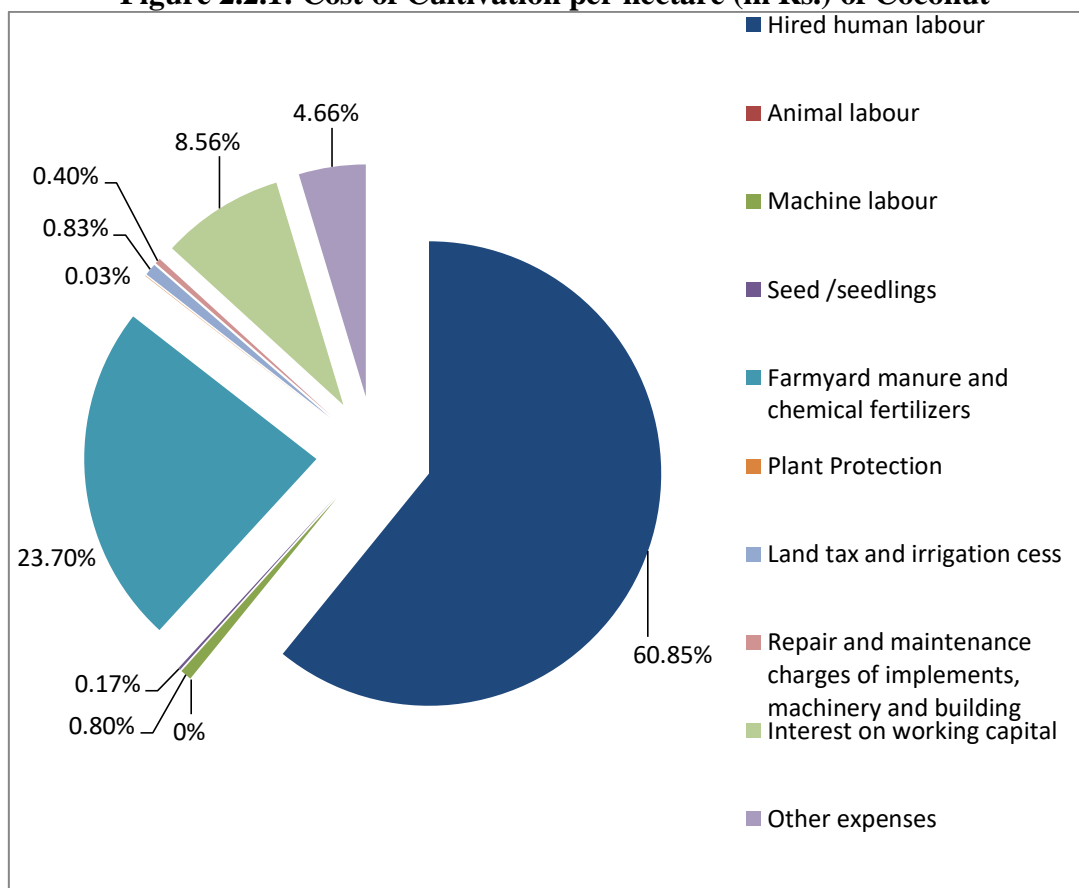


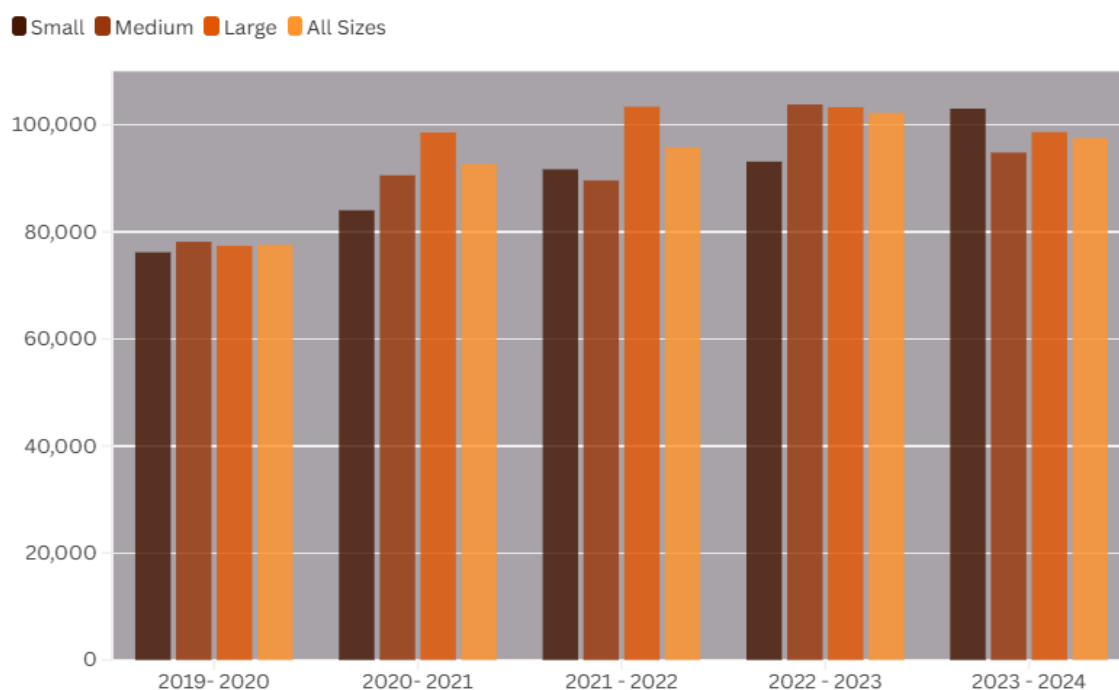
Table 2.2.3: Percentage of hired human labour hours to total labour hours of Coconut during 2023 – 2024

Sex	Holding Size Class			
	Small	Medium	Large	All Sizes
Male	71.64	73.69	78.87	75.62
Female	14.30	18.86	31.15	7.38
Total	85.94	92.55	110.02	83.00

Table 2.2.4: Cost of cultivation of Coconut per hectare (in Rs.) from 2019 -20 to 2023-24

Holding size class	Cost A(Rs.)				
	2019- 20	2020- 21	2021 - 22	2022 - 23	2023-24
Small	76187	84037	91694	93134	103032
Medium	78153	90579	89611	103810	94825
Large	77388	98578	103405	103319	98641
All Sizes	77584	92727	95758	102256	97530

Figure 2.2.2: Cost of cultivation of Coconut per hectare (in Rs.) from 2019 -20 to 2023-24



2.2.3 Value of output

Details of product and by product for the year 2023-24 is given below.

Table 2.2.5: Value of output during the year 2023-24

Year	Product / Byproduct	Holding Size Class			
		Small	Medium	Large	All Sizes
2023- 2024	Product	176160	167278	148008	158504
	Byproduct	2566	3328	4149	3671
	Total	178726	170606	152157	162175

Table 2.2.6: Input cost, output cost and Input-output ratio of Coconut per hectare (in Rs.) from 2019 -20 to 2023-24

Year	Components		
	Input Cost(Rs.)	Output Cost(Rs.)	Input-output ratio
2019-20	77584	161620	2.08
2020-21	92727	169947	1.83
2021-22	95758	163550	1.71
2022-23	102256	162003	1.58
2023 -24	97530	162175	1.66

Figure 2.2.3: Input cost, output cost and Input-output cost ratio of Coconut per hectare (in Rs.) from 2019 -20 to 2023-24

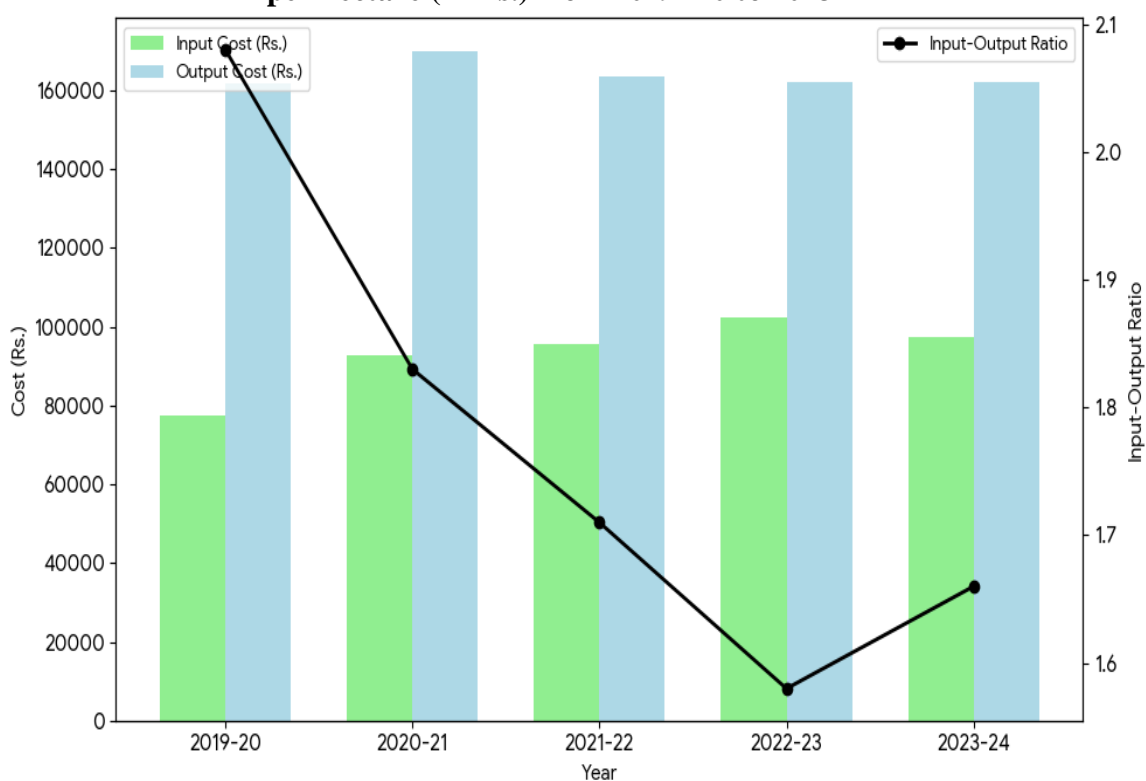
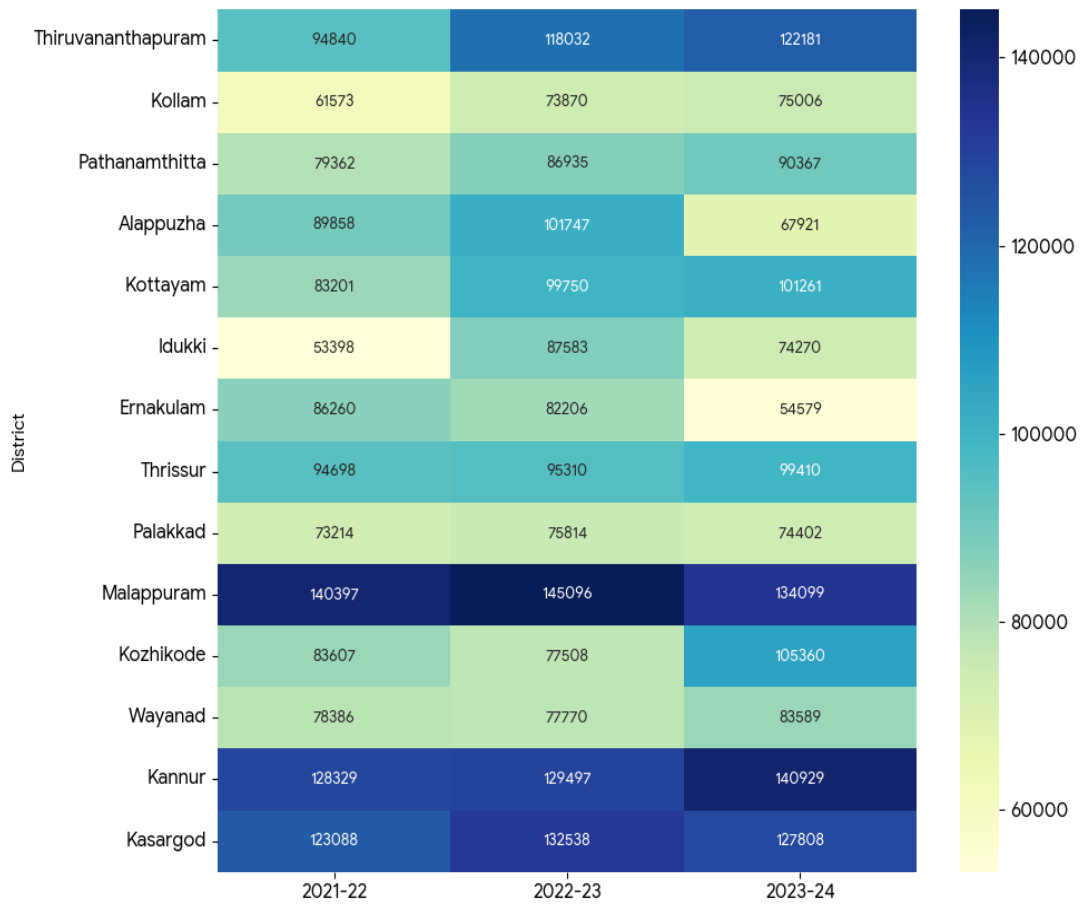


Table 2.2.7: Districtwise Cost of cultivation of Coconut per hectare (in Rs.) from 2021 -22 to 2023-24

District	Cost A		
	2021-22	2022-23	2023-24
Thiruvananthapuram	94840	118032	122181
Kollam	61573	73870	75006
Pathanamthitta	79362	86935	90367
Alappuzha	89858	101747	67921
Kottayam	83201	99750	101261
Idukki	53398	87583	74270
Ernakulam	86260	82206	54579
Thrissur	94698	95310	99410
Palakkad	73214	75814	74402
Malappuram	140397	145096	134099
Kozhikode	83607	77508	105360
Wayanad	78386	77770	83589
Kannur	128329	129497	140929
Kasargod	123088	132538	127808

Figure 2.2.4: Cost of cultivation of Coconut per hectare (in Rs.) from 2021 -22 to 2023-24



2.3.1 Area under Arecanut Cultivation

Details of holding selected and area coverage for this study are given below. The data collected from 760 holdings according to the size class by covering 129.19 hectares of land.

Table 2.3.1: Number of holdings and area under Arecanut

Holding size class	Sample size (No.s)	Area under the crop in the sample (ha)	Percentage Area	Average Area Per holding (ha)
Small	559	35.54	28	0.06
Medium	162	53.44	41	0.33
Large	39	40.21	31	1.03
Total	760	129.19	100	0.17

2.3.2 Cost of cultivation

The estimated cost of cultivation of different items per hectare of **Arecanut** is furnished in the below table.

Table 2.3.2: Cost of Cultivation per hectare (in Rs.) of Arecanut

Sl. No	Components	Holding Size Class			
		Small	Medium	Large	All Sizes
1	Hired human labour	73525	95432	84926	86033
2	Animal labour	0	0	0	0
3	Machine labour	229	2146	5714	2728
4	Seed /seedlings	114	0	67	51
5	Farmyard manure and chemical fertilizers	30824	37878	54221	40701
6	Plant Protection	118	357	722	398
7	Land tax and irrigation cess	892	791	956	867
8	Repair and maintenance charges of implements, machinery and building	1287	399	316	623
9	Interest on working capital	10481	13581	14565	12991
10	Other expenses	6452	8245	6261	7096
11	Total cost 'A'(1-10)	123924	158829	167748	151488
12	Interest on fixed capital	13843	7095	8270	9297
13	Cost 'B1'(11+12)	137766	165923	176018	160784

14	Interest on land value	938703	881715	582579	802570
15	Cost 'B'(13+14)	1076469	1047639	758598	963354
16	Imputed value of household labour	32791	17936	8907	19155
17	Cost 'C'(15+16)	1109260	1065574	767504	982509

Figure 2.3.1: Cost of Cultivation per hectare (in Rs.) of Arecanut

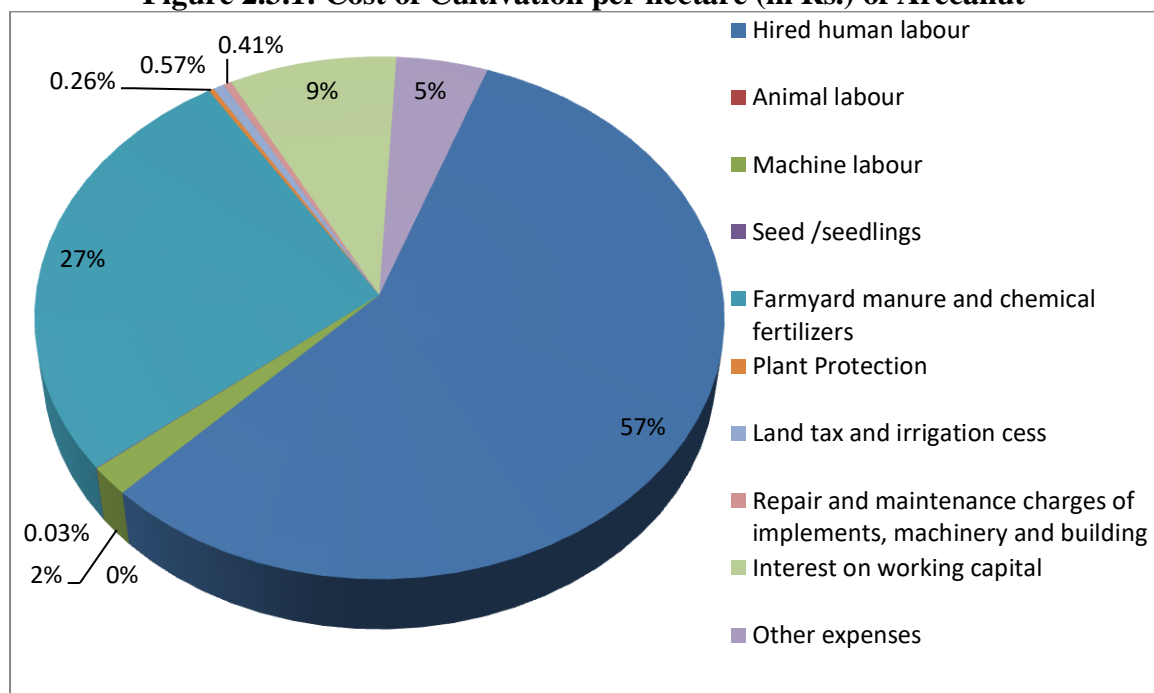


Table 2.3.3: Percentage of hired human labour hours to total labour hours of Arecanut during 2023 - 24

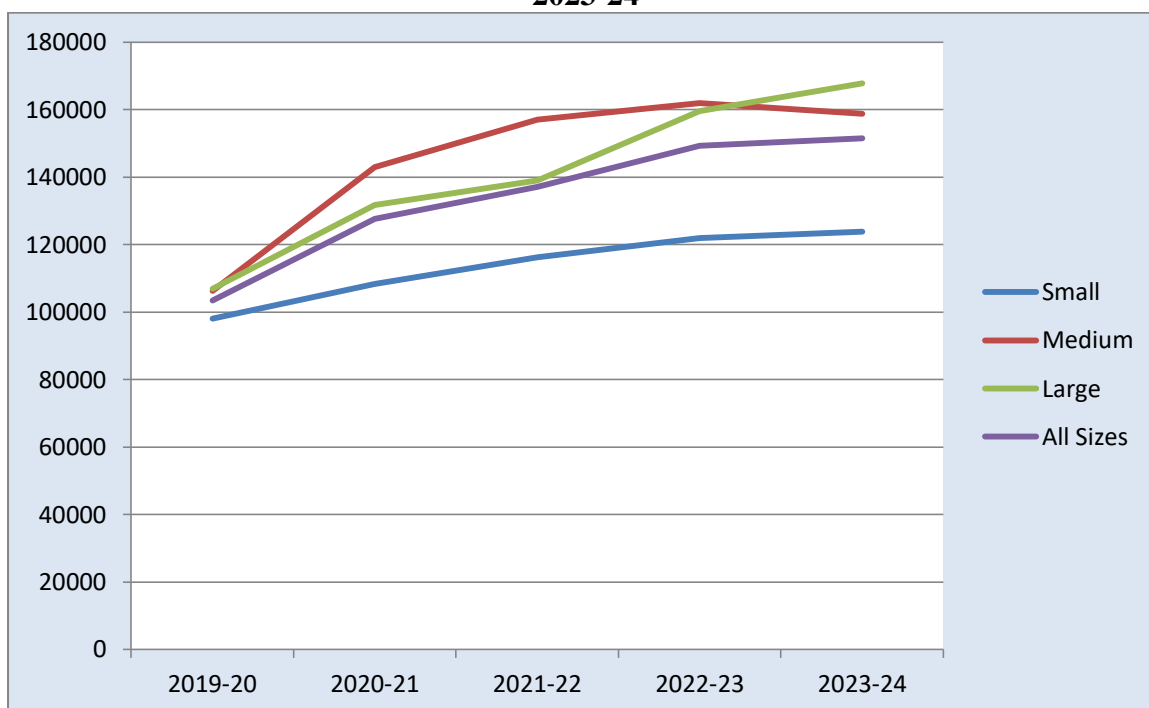
Sex	Holding Size Class			
	Small	Medium	Large	All Sizes
Male	57.29	65.68	69.40	64.35
Female	14.87	31.56	38.82	14.34
Total	72.16	97.24	108.22	78.69

Here the total labour is the sum of hired human labour and household human labour.

Table 2.3.4: Cost of cultivation of Arecanut per hectare (in Rs.) from 2019 -20 to 2023-24

Holding size class	Cost A(Rs.)				
	2019-20	2020-21	2021-22	2022-23	2023-24
Small	98042	108323	116324	121894	123924
Medium	106313	143024	157025	161941	158829
Large	106986	131789	138989	159633	167748
All Sizes	103454	127718	137182	149364	151488

Figure 2.3.2: Cost of cultivation of Arecanut per hectare (in Rs.) from 2019-20 to 2023-24



2.3.3 Value of output

Details of product and by product for the year 2023-24 are given below.

Table 2.3.5: Value of output during the year 2023-24

Year	Holding size class	Product (in Rs.)
2023 - 24	Small	320519
	Medium	369684
	Large	492087
	All Sizes	391209

Table 2.3.6: Input cost, output cost and Input-output ratio of Arecanut per hectare (in Rs.) from 2019 -20 to 2023-24

Year	Components		
	Input Cost(Rs.)	Output Cost(Rs.)	Input-output ratio
2019-20	103454	260726	2.52
2020-21	127718	345986	2.71
2021-22	137182	390168	2.84
2022-23	149364	396410	2.65
2023-24	151488	391209	2.58

Figure 2.3.3 : Input cost, output cost and Input-output ratio of Arecanut per hectare (in Rs.) from 2019 -20 to 2023-24

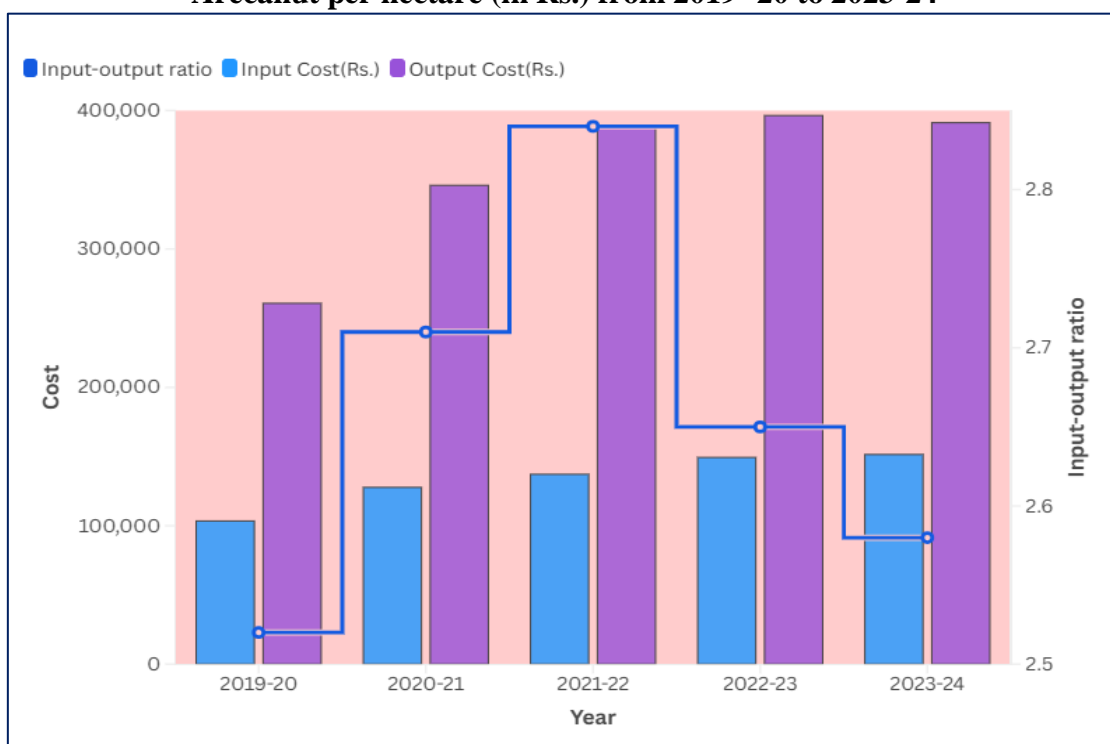


Table 2.3.7: Districtwise cost of cultivation (in Rs) per hectare of arecanut cultivation from 2021-22 to 2023-24

District	2021-22	2022-23	2023-24
Thiruvananthapuram	67100	65763	76215
Kollam	77593	83182	77524
Pathanamthitta	78105	81381	83701
Alappuzha	58950	59947	48089
Kottayam	76545	75253	50993
Idukki	49266	59810	61049
Ernakulam	210972	249547	166408
Thrissur	151603	161032	174573
Palakkad	170501	185793	206281
Malappuram	124587	136318	133866
Kozhikode	128824	138389	147069
Wayanad	72973	74138	80699
Kannur	166120	174433	218351
Kasargod	219004	216598	222701

Figure 2.3.4 : Districtwise cost of cultivation (in Rs) per hectare of arecanut cultivation from 2021-22 to 2023-24



2.4.1 Area under Tapioca Cultivation

Details of holding selected and area coverage for this study are given below. The study on tapioca cultivation covers a total of 566 holdings across an area of 124.35 hectares.

Table 2.4.1: Number of holdings and area under Tapioca Cultivation

Holding size class	Sample size (No.s)	Area under the crop in the sample (ha)	Percentage Area	Average Area Per holding (ha)
Small	351	30.57	24	0.09
Medium	176	55.54	45	0.32
Large	39	38.24	31	0.98
Total	566	124.35	100	0.22

2.4.2 Cost of cultivation

The estimated cost of cultivation of different items per hectare of Tapioca is furnished in the below table.

Table 2.4.2: Cost of Cultivation per hectare (in Rs.) of Tapioca

Sl.No	Components	Holding Size Class			
		Small	Medium	Large	All Sizes
1	Hired human labour	71246	97783	77773	85105
2	Animal labour	0	0	0	0
3	Machine labour	2368	6056	4570	4692
4	Seed /seedlings	11953	13612	16906	14217
5	Farmyard manure and chemical fertilizers	33424	41384	32993	36846
6	Plant Protection	1074	778	722	834
7	Land tax and irrigation cess	558	322	263	362
8	Repair and maintenance charges of implements, machinery and building	1263	478	110	558
9	Interest on working capital	12006	15961	13296	14169
10	Other expenses	13122	15989	22399	17255
11	Total cost 'A'(1-10)	147014	192363	169034	174039
12	Interest on fixed capital	7801	3598	4359	4865
13	Cost 'B1'(11+12)	154815	195961	173392	178904

14	Interest on land value	768778	853484	482264	718505
15	Cost 'B'(13+14)	923593	1049445	655657	897410
16	Imputed value of household labour	70840	30927	14308	35630
17	Cost 'C'(15+16)	994433	1080372	669965	933040

Figure 2.4.1: Cost A per hectare of Tapioca during 2023-24

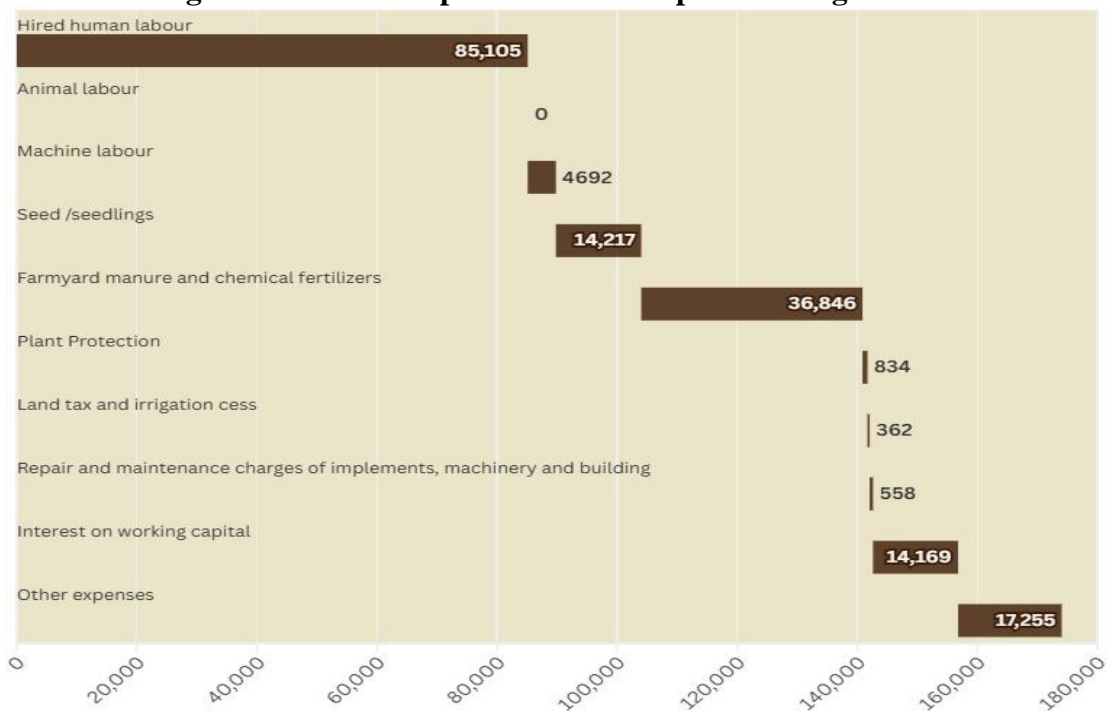


Table 2.4.3: Percentage of hired human labour hours to total labour hours of Tapioca during 2023 - 24

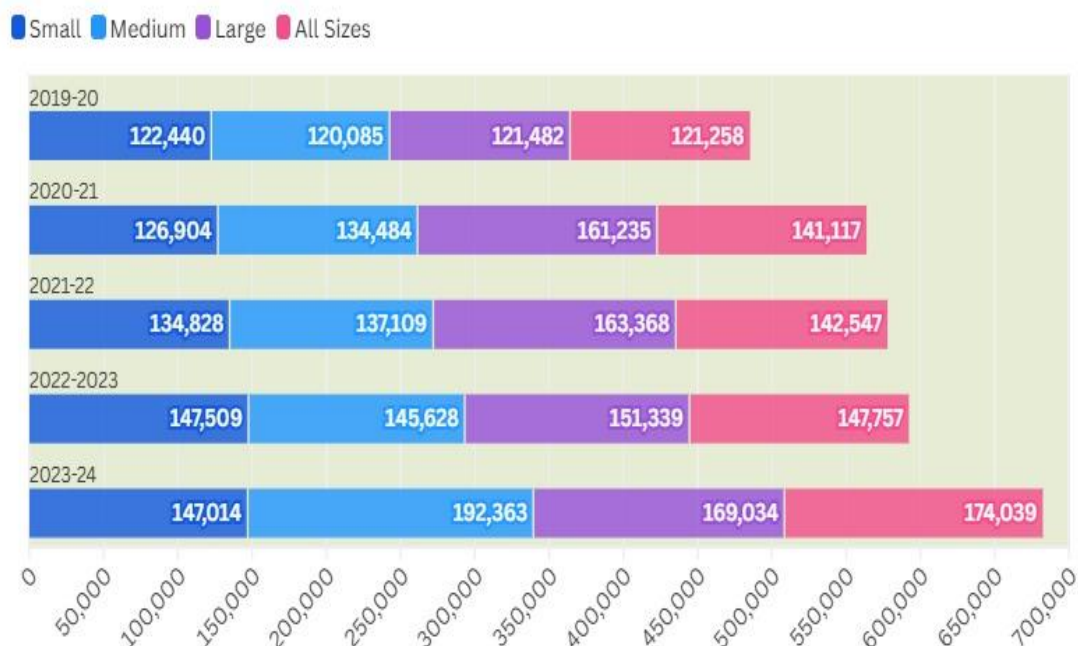
Sex	Holding Size Class			
	Small	Medium	Large	All Sizes
Male	46.09	69.77	77.81	65.08
Female	6.48	16.32	22.07	5.39
Total	52.57	86.09	99.88	70.47

Here the total labour is the sum of hired human labour and household human labour.

Table 2.4.4: Cost of cultivation of Tapioca per hectare (in Rs.) from 2019 -20 to 2023-24

Holding size class	Cost A(Rs.)				
	2019-20	2020-21	2021-22	2022-23	2023-24
Small	122440	126904	134828	147509	147014
Medium	120085	134484	137109	145628	192363
Large	121482	161235	163368	151339	169034
All Sizes	121258	141117	142547	147757	174039

Figure 2.4.2: Cost of cultivation of Tapioca per hectare (in Rs.) from 2019-20 to 2023-24



2.4.3 Value of output

Details of product and by product for the year 2023-24 are given below.

Table 2.4.5: Value of output during the year 2023-24

Year	Holding size class	Product/Byproduct (in Rs.)		
		Product	Byproduct	Total
2023-24	Small	523073	10395	533468
	Medium	586067	7613	593680
	Large	538442	8252	546694
	All Sizes	555933	8494	564427

Table 2.4.6: Input cost, output cost and Input-output ratio of Tapioca per hectare (in Rs.) from 2019 -20 to 2023-24

Year	Components		
	Input Cost(Rs.)	Output Cost(Rs.)	Input-output ratio
2019-20	121258	337498	2.78
2020-21	141117	328218	2.33
2021-22	142547	369376	2.59
2022-23	147757	463473	3.14
2023-24	174039	564427	3.24

Figure 2.4.3: Input cost, output cost and Input-output ratio of Tapioca per hectare (in Rs.) from 2019 -20 to 2023-24

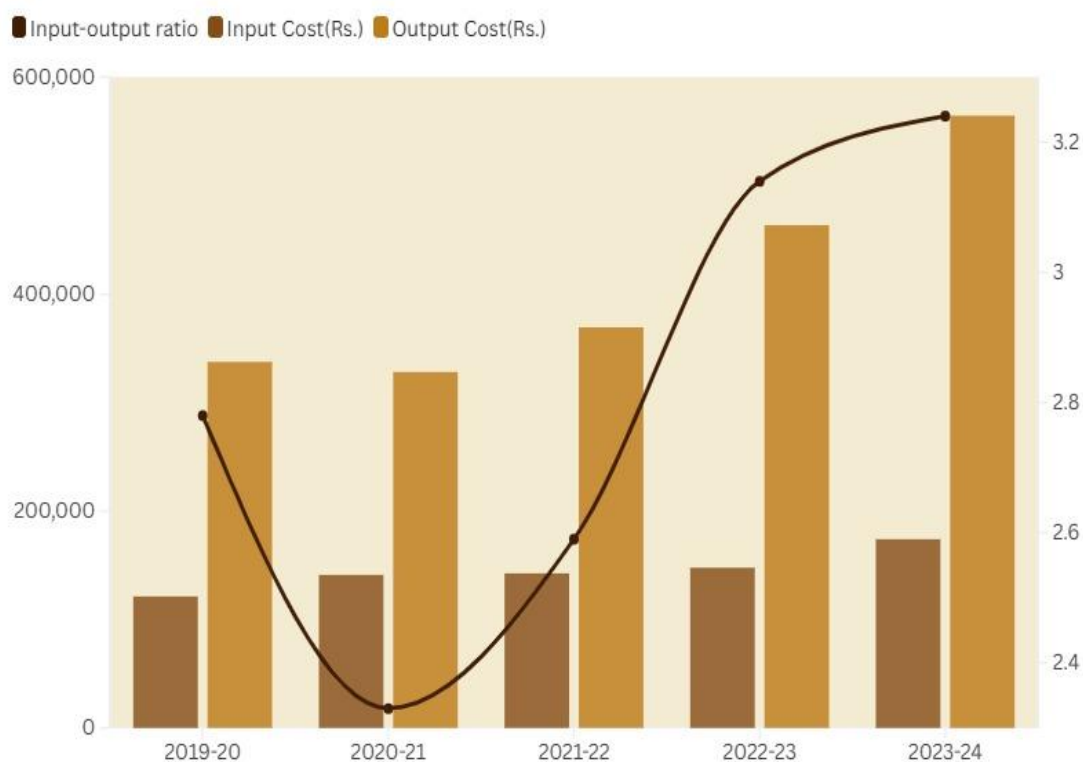
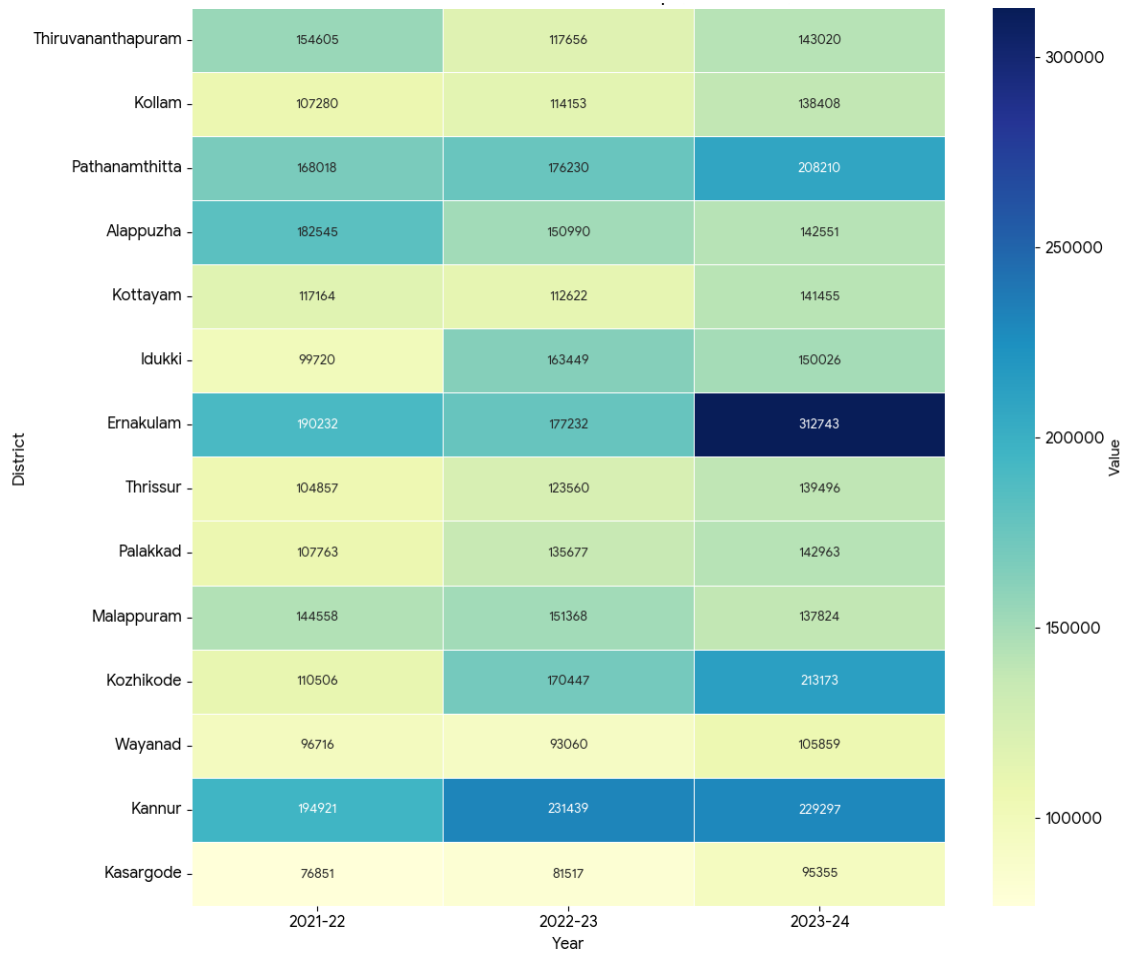


Table 2.4.7 Districtwise cost of cultivation (in Rs) per hectare of tapioca cultivation from 2021-22 to 2023-24

District	2021-22	2022-23	2023-24
Thiruvananthapuram	154605	117656	143020
Kollam	107280	114153	138408
Pathanamthitta	168018	176230	208210
Alappuzha	182545	150990	142551
Kottayam	117164	112622	141455
Idukki	99720	163449	150026
Ernakulam	190232	177232	312743
Thrissur	104857	123560	139496
Palakkad	107763	135677	142963
Malappuram	144558	151368	137824
Kozhikode	110506	170447	213173
Wayanad	96716	93060	105859
Kannur	194921	231439	229297
Kasargod	76851	81517	95355

Figure 2.4.4: Districtwise cost of cultivation (in Rs) per hectare of tapioca cultivation from 2021-22 to 2023-24



2.5.1 Area under Banana Cultivation during 2023-24

As compared to previous years, total area of Banana during the period 2023-24 is 144.74 Ha which is higher as compared to 2022-23 which is 139.94Ha.

Table 2.5.1: Number of holdings and area under Banana

Holding size class	No of selected Holdings	Area under the crop in the sample (ha)	Percentage Area	Average Area Per holding (ha)
Small	342	30.19	21	0.09
Medium	162	57.66	40	0.36
Large	45	56.89	39	1.26
Total	549	144.74	100	0.26

2.5.2 Cost of cultivation

The estimated cost of cultivation of different items per hectare of banana is furnished in the below table.

Table 2.5.2: Cost of Cultivation per hectare (in Rs.) of Banana

Sl.No	Components	Holding Size Class			
		Small	Medium	Large	All Sizes
1	Hired human labour	89082	96913	105841	98788
2	Animal labour	0	0	0	0
3	Machine labour	1246	1954	5195	3080
4	Seed /seedlings	34406	30220	30287	31120
5	Farmyard manure and chemical fertilizers	63809	53858	56903	57130
6	Plant Protection	3068	3182	5060	3897
7	Land tax and irrigation cess	568	436	483	482
8	Repair and maintenance charges of implements, machinery and building	1700	630	955	981
9	Interest on working capital	19161	18613	20329	19401
10	Other expenses	35142	37096	59753	45593
11	Total cost 'A'(1-10)	248183	242902	284806	260472
12	Interest on fixed capital	15407	6877	2495	6934
13	Cost 'B1'(11+12)	263589	249779	287300	267407
14	Interest on land value	886668	782090	589182	728090

15	Cost 'B'(13+14)	1150258	1031869	876483	995497
16	Imputed value of household labour	92900	48132	30340	50478
17	Cost 'C'(15+16)	1243158	1080001	906822	1045975

Figure 2.5.1: Cost of Cultivation per hectare (in Rs.) of Banana

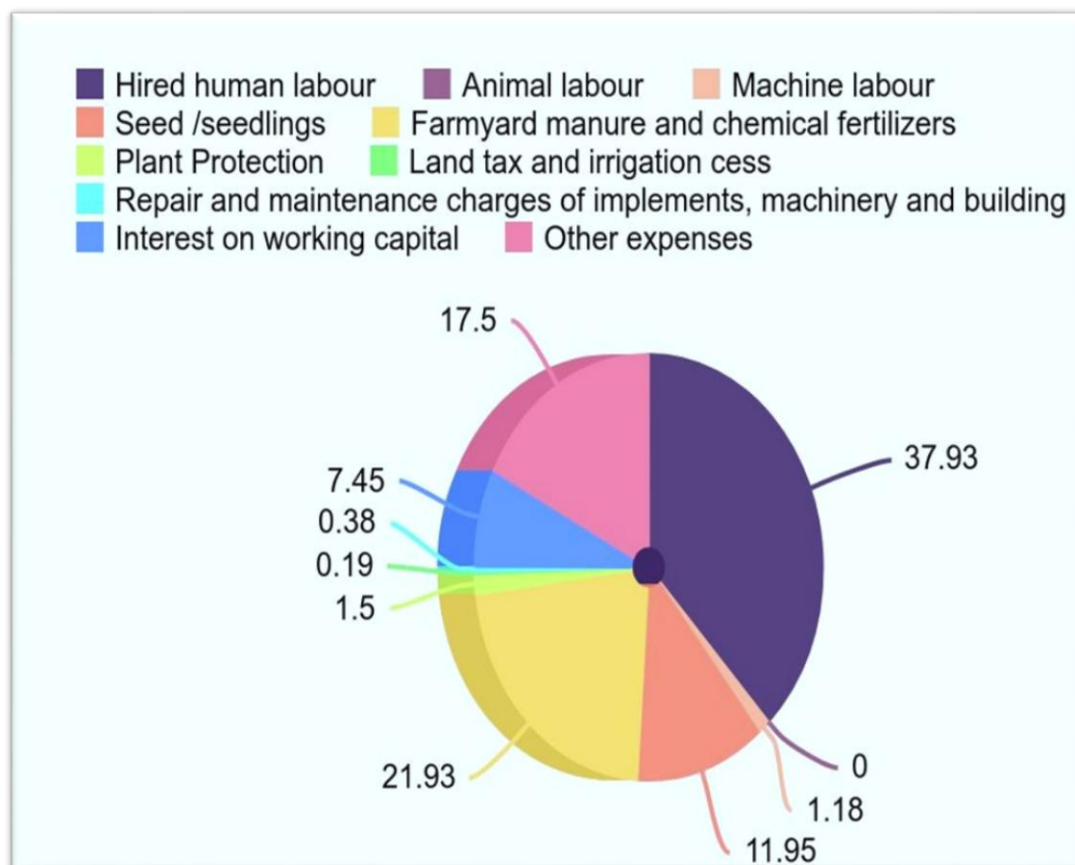


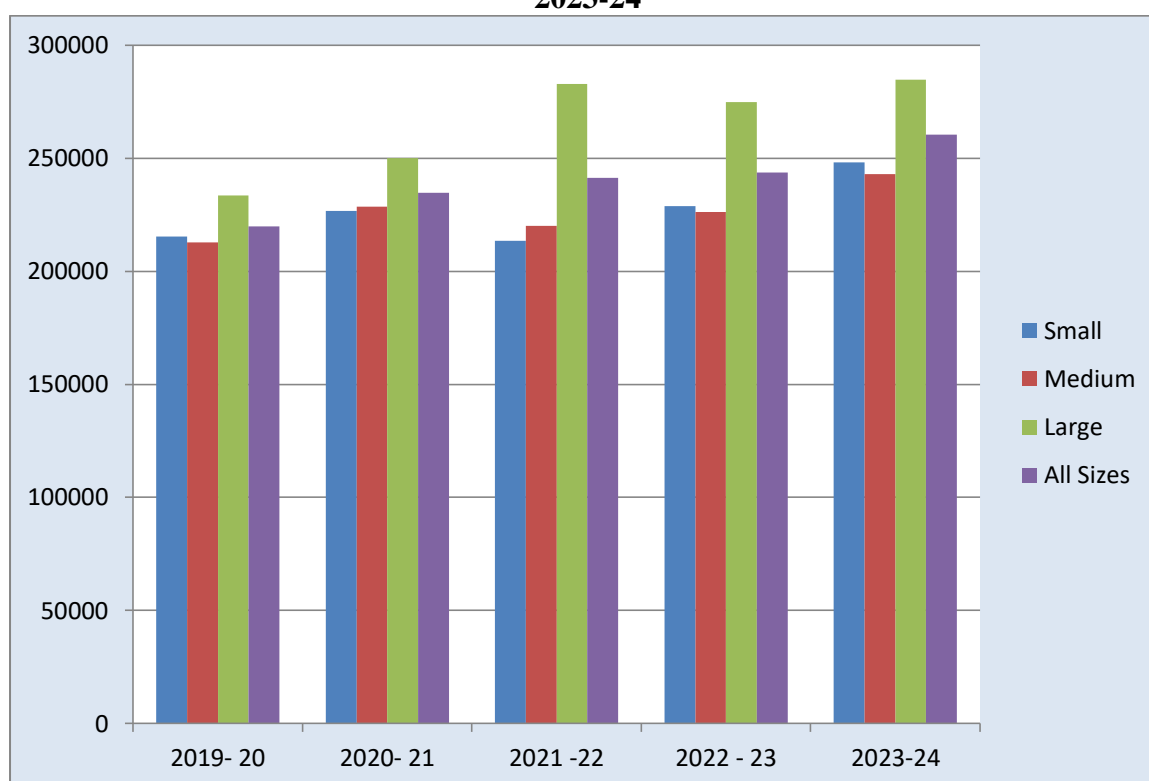
Table 2.5.3: Percentage of hired human labour hours to total labour hours of Banana during 2023-24

Sex	Holding Size Class			
	Small	Medium	Large	All Sizes
Male	44.20	59.71	72.89	60.58
Female	5.85	15.57	13.47	5.29
Total	50.05	75.28	86.36	65.87

Table 2.5.4: Cost of cultivation of Banana per hectare (in Rs.) from 2019 -20 to 2023-24

Holding size class	Cost A(Rs.)				
	2019- 2020	2020- 2021	2021 - 2022	2022 - 2023	2023-24
Small	215424	226676	213395	228869	248183
Medium	212897	228648	220130	226217	242902
Large	233637	250014	282862	274786	284806
All Sizes	219792	234710	241320	243605	260472

Figure 2.5.2: Cost of cultivation of Banana per hectare (in Rs.) from 2019 -20 to 2023-24



2.5.3 Value of output

Details of product and byproduct for the year 2023-24 is given below.

Table 2.5.5: Value of output during the year 2023-24

Product/Byproduct	Holding Size Class			
	Small	Medium	Large	All Sizes
Product	671459	621918	701447	663508
Byproduct	17441	15856	11348	14415
Total	688900	637774	712795	677923

Table 2.5.6: Input cost, output cost and Input-output ratio of Banana per hectare (in Rs.) from 2019 -20 to 2023-24

Year	Components		
	Input Cost(Rs.)	Output Cost(Rs.)	Input-output ratio
2019-20	219792	525063	2.39
2020-21	234710	497306	2.12
2021-22	241320	626820	2.60
2022-23	243605	624307	2.56
2023-24	260472	677923	2.55

Figure 2.5.3: Input cost, output cost and Input-output ratio of Banana per hectare (in Rs.) from 2019 -20 to 2023-24

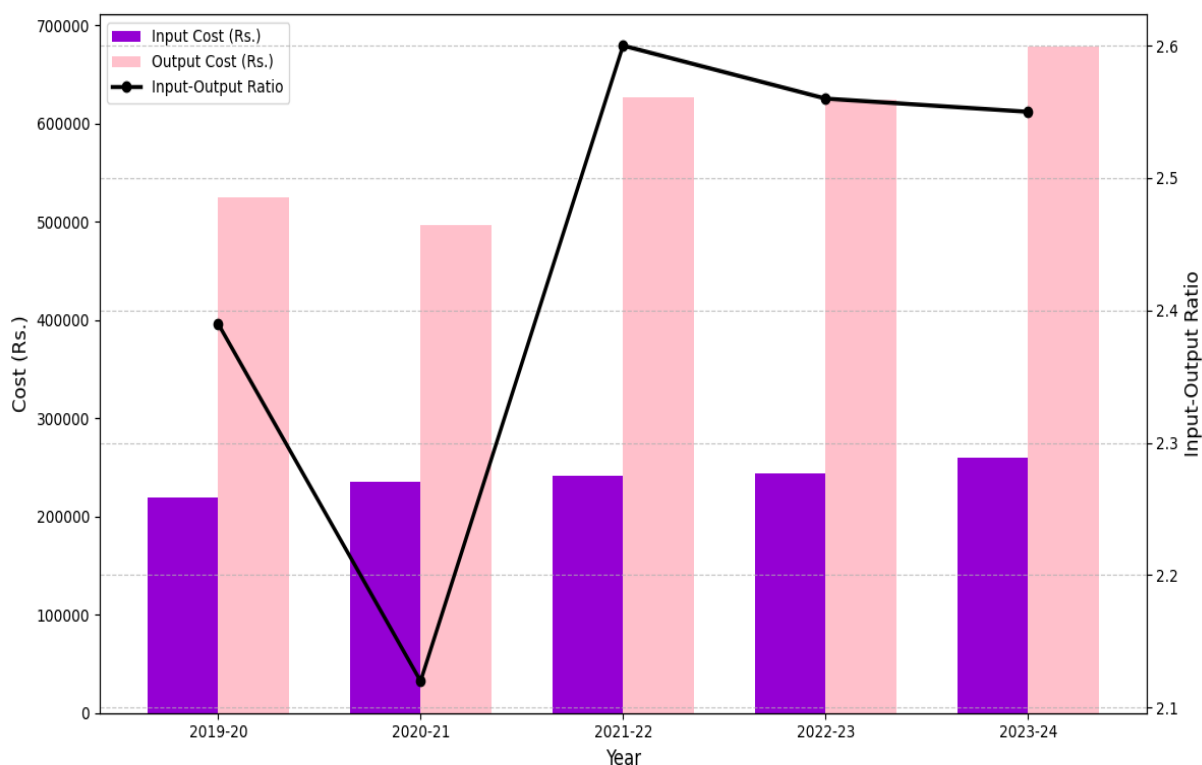
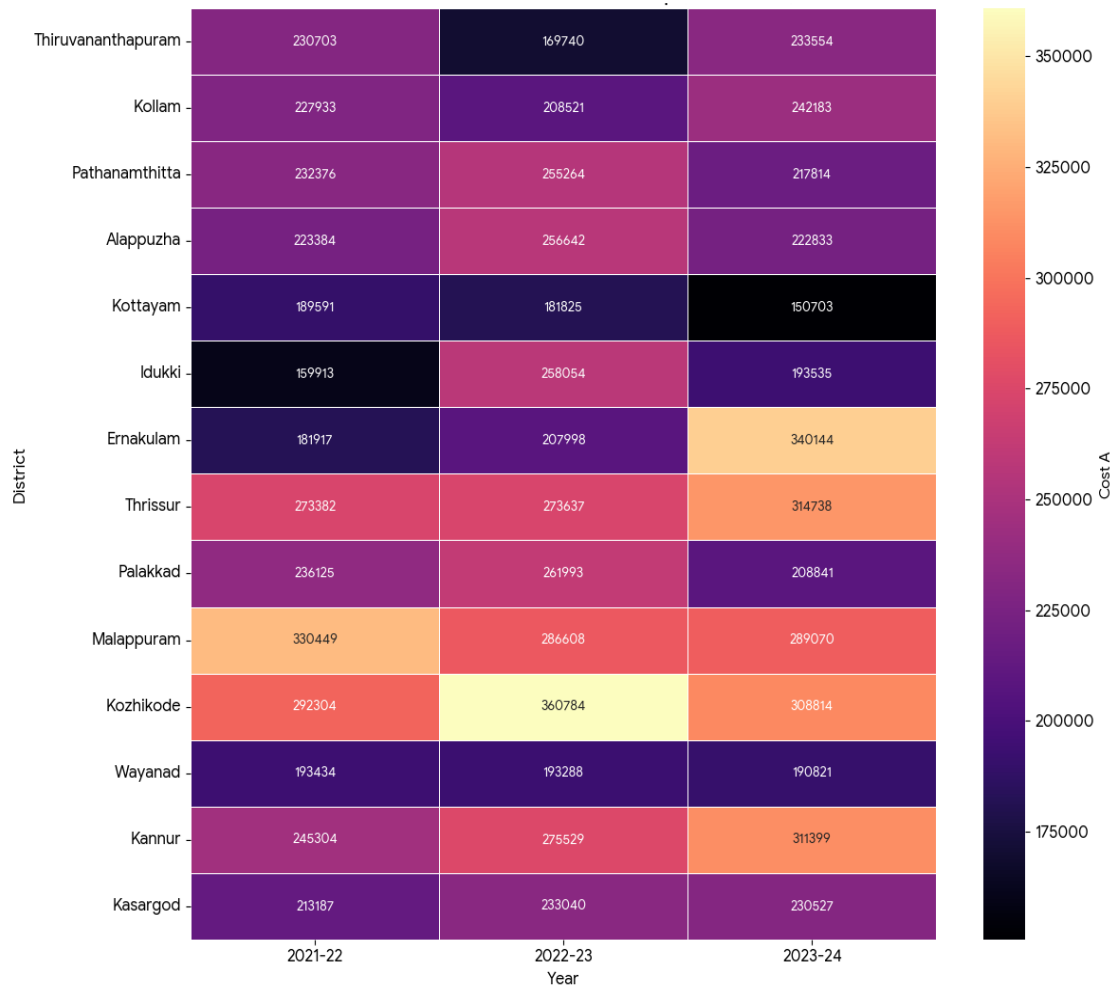


Table 2.5.7: Districtwise Cost of cultivation of Banana per hectare (in Rs.) from 2021 -22 to 2023-24

DISTRICT	Cost A		
	2021-22	2022-23	2023-24
Thiruvananthapuram	230703	169740	233554
Kollam	227933	208521	242183
Pathanamthitta	232376	255264	217814
Alappuzha	223384	256642	222833
Kottayam	189591	181825	150703
Idukki	159913	258054	193535
Ernakulam	181917	207998	340144
Thrissur	273382	273637	314738
Palakkad	236125	261993	208841
Malappuram	330449	286608	289070
Kozhikode	292304	360784	308814
Wayanad	193434	193288	190821
Kannur	245304	275529	311399
Kasargod	213187	233040	230527

Figure 2.5.4: Districtwise Cost of cultivation of Banana per hectare (in Rs.) from 2021 -22 to 2023-24



2.6

PEPPER

2.6.1 Area under Pepper Cultivation during 2023-24

As compared to previous years, total area of Pepper during the period 2023-24 is 55.06 Ha which is lower as compared to 2022-23 which is 55.48Ha.

Table 2.6.1: Number of holdings and area under Pepper

Holding size class	No of selected Holdings	Area under the crop in the sample (ha)	Percentage Area	Average Area Per holding (ha)
Small	471	27.23	50	0.06
Medium	68	19.41	35	0.29
Large	9	8.42	15	0.94
Total	548	55.06	100.00	0.10

2.6.2 Cost of cultivation

The estimated cost of cultivation of different items per hectare of Pepper is furnished in the below table.

Table 2.6.2: Cost of Cultivation per hectare (in Rs.) of Pepper

Sl. No	Components	Holding Size Class			
		Small	Medium	Large	All Sizes
1	Hired human labour	62422	58374	58192	60348
2	Animal labour	0	0	0	0
3	Machine labour	0	54	0	19
4	Seed /seedlings	625	628	1146	706
5	Farmyard manure and chemical fertilizers	21862	20179	23462	21514
6	Plant Protection	554	1363	0	755
7	Land tax and irrigation cess	831	869	775	836
8	Repair and maintenance charges of implements, machinery and building	1869	452	184	1112
9	Interest on working capital	8546	8060	8280	8334
10	Other expenses	5444	4656	1478	4560
11	Total cost 'A'(1-10)	102154	94635	93517	98183
12	Interest on fixed capital	16201	7236	506	10641
13	Cost 'B1'(11+12)	118355	101871	94023	108824
14	Interest on land value	1158791	1024518	358612	989086
15	Cost 'B'(13+14)	1277147	1126389	452635	1097910

16	Inputed value of household labour	47930	20551	12963	32932
17	Cost 'C'(15+16)	1325077	1146940	465598	1130841

Figure 2.6.1: Cost of Cultivation per hectare (in Rs.) of Pepper

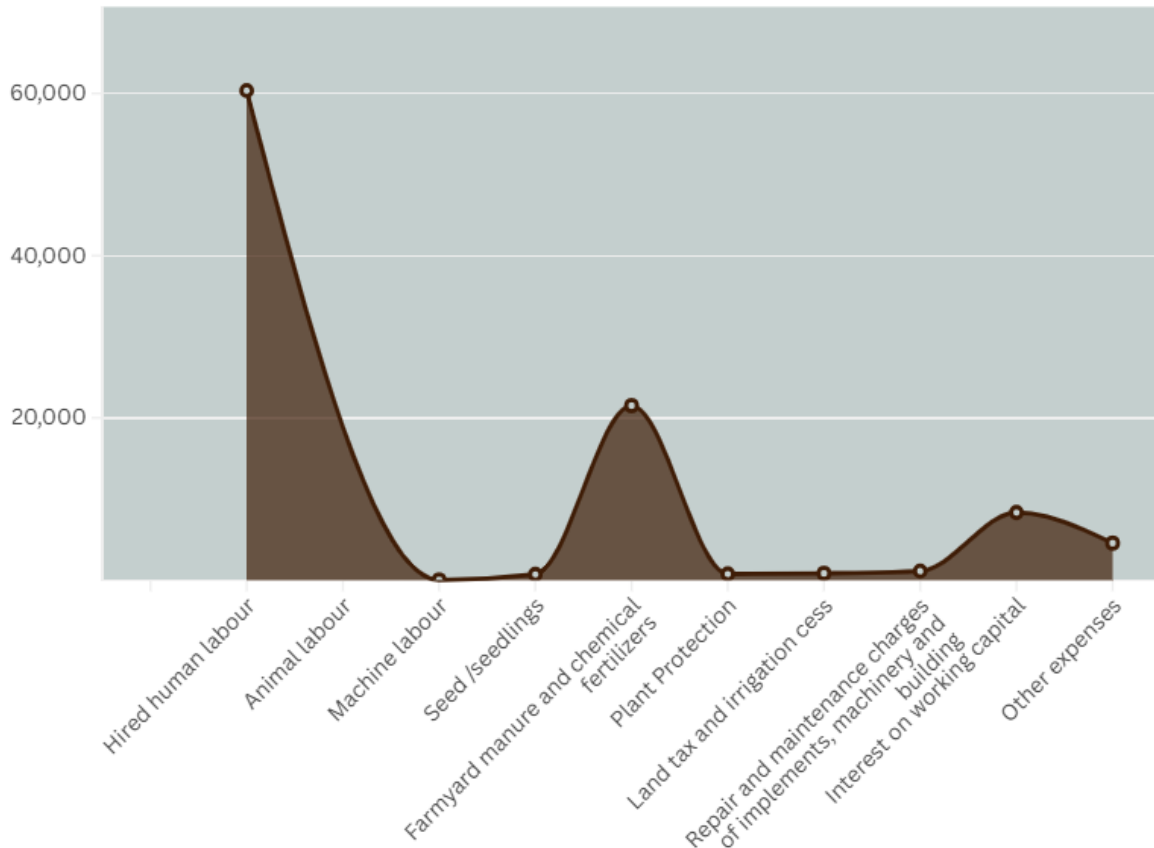


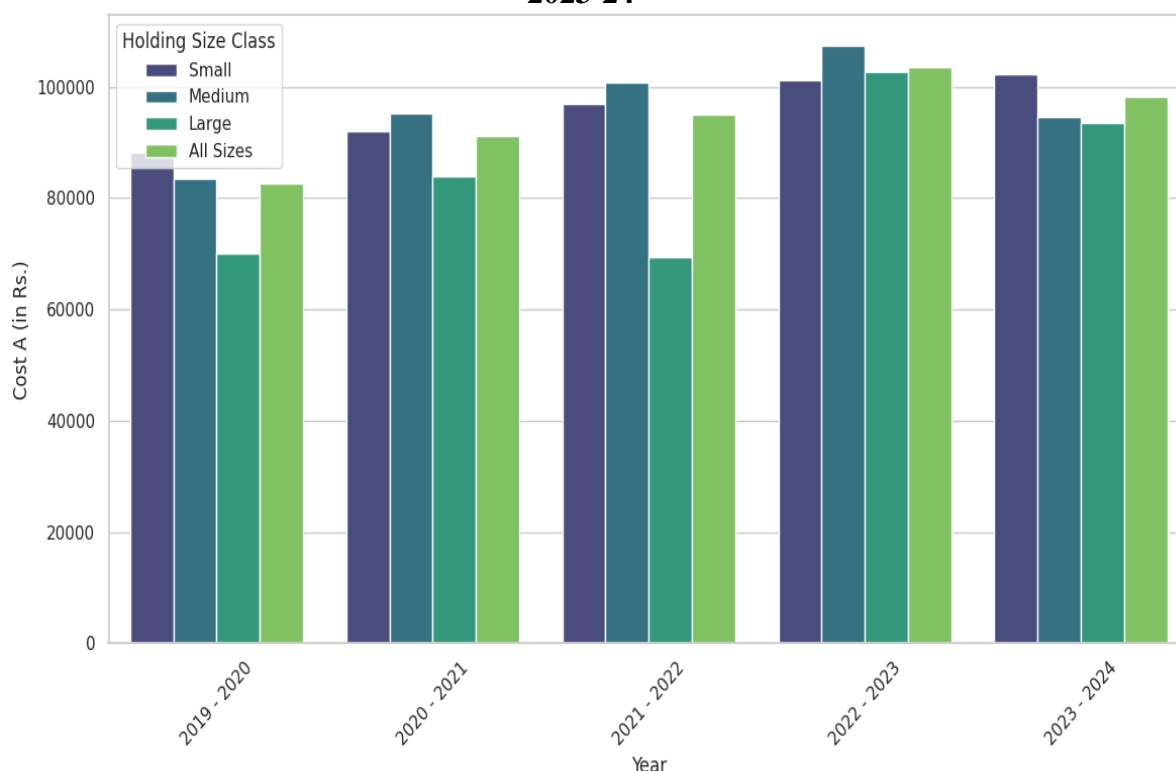
Table 2.6.3: Percentage of hired human labour hours to total labour hours of Pepper during 2023 – 2024

Sex	Holding Size Class			
	Small	Medium	Large	All Sizes
Male	50.19	66.37	67.33	56.98
Female	5.53	18.39	26.95	5.35
Total	55.72	84.76	94.28	62.33

Table 2.6.4: Cost of cultivation of Pepper per hectare (in Rs.) from 2019 -20 to 2023-24

Holding size class	Cost A (in Rs.)				
	2019- 20	2020 - 2021	2021- 22	2022- 23	2023 - 24
Small	88199	91965	97023	101114	102154
Medium	83543	95285	100762	107474	94635
Large	69935	83963	69408	102746	93517
All Sizes	82583	91110	95005	103532	98183

Figure 2.6.2: Cost of cultivation of Pepper per hectare (in Rs.) from 2019 -20 to 2023-24



2.6.3 Value of output

Details of product and by product for the year 2023-24 is given below.

Table 2.6.5: Value of output during the year 2023-24

Year	Product/Byproduct	Holding Size Class			
		Small	Medium	Large	All Sizes
2023 - 24	Product	307009	226725	250396	270051

Table 2.6.6: Input cost, output cost and input-output ratio of Pepper per hectare (in Rs.) from 2019 -20 to 2023-24

Year	Components		
	Input Cost(Rs.)	Output Cost(Rs.)	Input-output ratio
2019-20	82583	192577	2.33
2020-21	91110	207707	2.28
2021-22	95005	230770	2.43
2022-23	103532	246405	2.38
2023-24	98183	270051	2.75

Figure 2.6.3: Input cost, output cost and input-output ratio of Pepper per hectare (in Rs.) from 2019 -20 to 2023-24

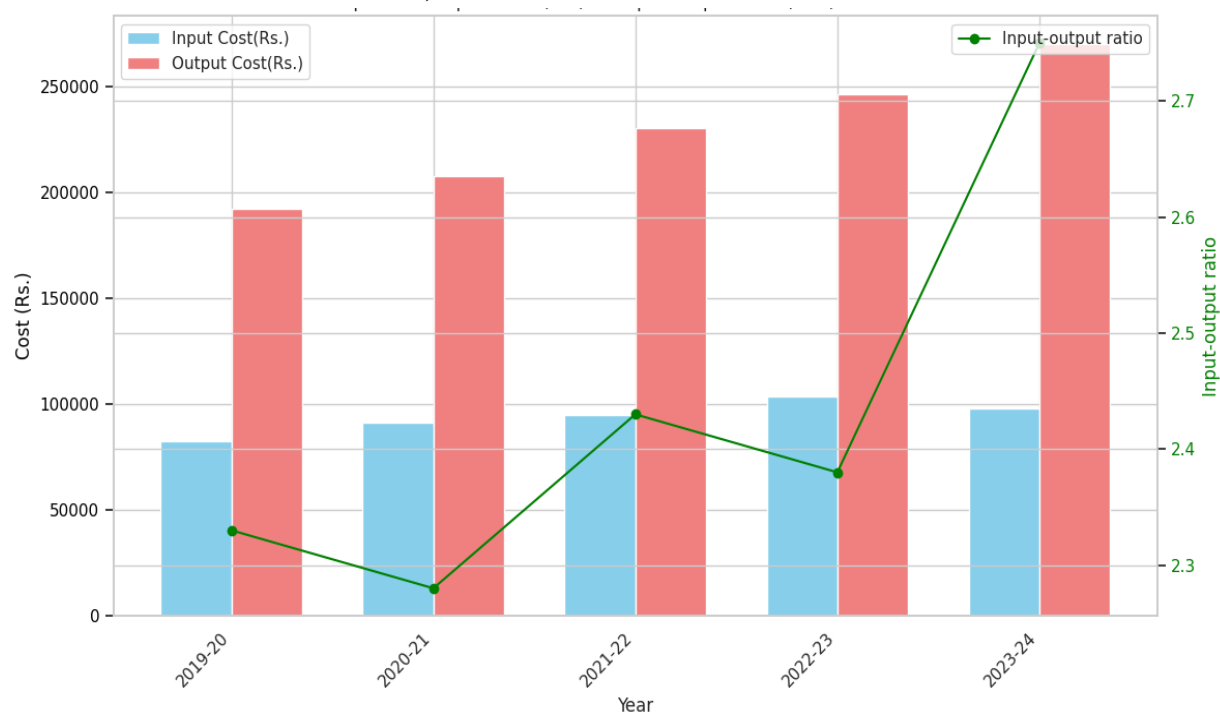
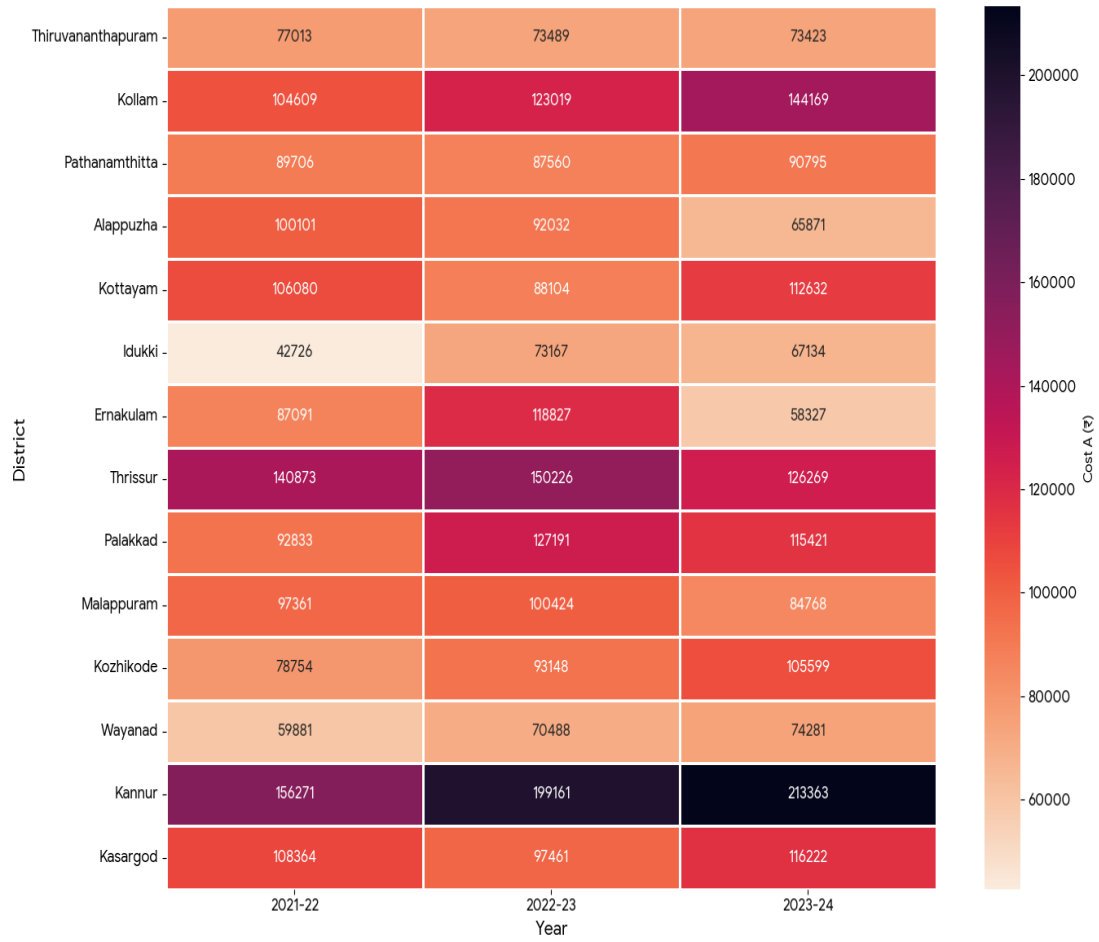


Table 2.6.7: Cost of cultivation of Pepper per hectare (in Rs.) from 2021 -22 to 2023-24

District	Cost A		
	2021-22	2022-23	2023-24
Thiruvananthapuram	77013	73489	73423
Kollam	104609	123019	144169
Pathanamthitta	89706	87560	90795
Alappuzha	100101	92032	65871
Kottayam	106080	88104	112632
Idukki	42726	73167	67134
Ernakulam	87091	118827	58327
Thrissur	140873	150226	126269
Palakkad	92833	127191	115421
Malappuram	97361	100424	84768
Kozhikode	78754	93148	105599
Wayanad	59881	70488	74281
Kannur	156271	199161	213363
Kasargod	108364	97461	116222

Figure 2.6.4: Cost of cultivation of Pepper per hectare (in Rs.) from 2021 -22 to 2023-24



2.7.1 Area under Ginger Cultivation during 2023-24

Details of holding selected and area coverage of Ginger for this study are given below. The data collected from 427 holdings according to the size class by covering 34.09 hectare of land.

Table 2.7.1: : Number of holdings and area under Ginger

Holding size class	Sample size (No.s)	Area under the crop in the sample(ha)	Percentage Area	Average Area Per holding(ha)
Small	398	16.68	49	0.04
Medium	20	6.28	18	0.31
Large	9	11.13	33	1.24
Total	427	34.09	100	0.08

2.7.2 Cost of cultivation

The estimated cost of cultivation of different items per hectare of Ginger is furnished in the below table.

Table 2.7.2: Cost of Cultivation per hectare (in Rs.) of Ginger

Sl.No	Components	Holding Size Class			
		Small	Medium	Large	All Sizes
1	Hired human labour	77151	111512	68617	80689
2	Animal labour	0	0	0	0
3	Machine labour	1707	6581	6197	4071
4	Seed/seedlings	79814	149037	163011	119729
5	Farmyard manure and chemical fertilizers	36393	28520	19490	29423
6	Plant Protection	948	2384	3072	1906
7	Land tax and irrigation cess	680	858	891	782
8	Repair and maintenance charges of implements, machinery and building	1791	202	148	962
9	Interest on working capital	19601	29803	26039	23582
10	Other expenses	13871	12960	9965	12428
11	Total cost'A'(1-10)	231956	341857	297430	273571
12	Interest on fixed capital	2084	9357	7161	5081
13	Cost'B1'(11+12)	234041	351214	304591	278652

14	Interest on land value	1105279	207554	144119	626103
15	Cost'B'(13+14)	1339320	558769	448709	904755
16	Inputed value of household labour	80848	16351	6296	44626
17	Cost'C'(15+16)	1420168	575120	455006	949382

Figure 2.7.1 : Cost of Cultivation per hectare (in Rs.) of Ginger

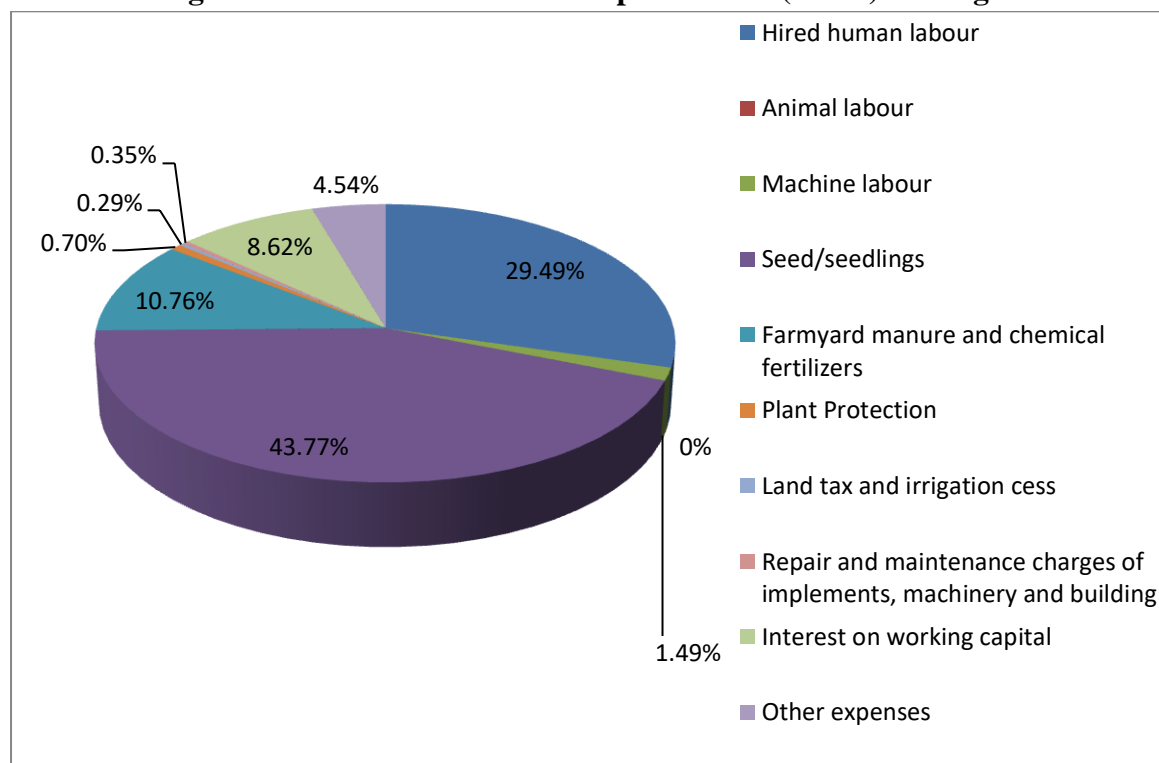


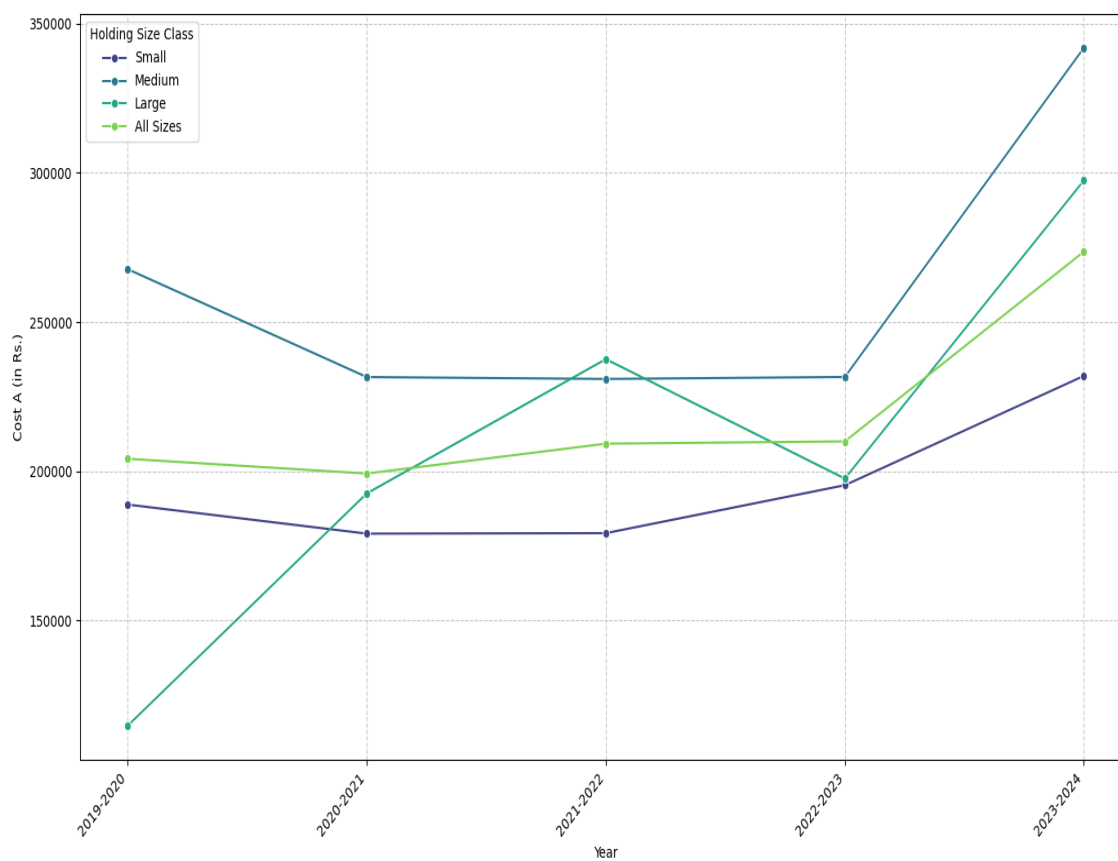
Table 2.7.3: Percentage of hired human labour hours to total labour hours of Ginger during 2023 - 24

Sex	Holding Size Class			
	Small	Medium	Large	All Sizes
Male	41.16	35.07	28.5	36.38
Female	10.85	45.31	47.23	32.75
Total	52.01	80.38	75.73	69.13

Table 2.7.4: Cost of cultivation of Ginger per hectare (in Rs.) from 2019-20 to 2023-24

Holding size class	Cost A (in Rs.)				
	2019- 20	2020- 21	2021- 22	2022- 23	2023 - 24
Small	188845	179105	179274	195335	231956
Medium	267686	231572	230937	231602	341857
Large	114805	192601	237565	197571	297430
All Sizes	204188	199246	209257	210022	273571

Figure 2.7.2: Cost of cultivation of Ginger per hectare (in Rs.) from 2019-20 to 2023-24



The last five year data shows that there occurred fluctuations in the cost of cultivation of Ginger. From the above table it is clear that cultivators belongs to medium holding has higher cost as compare to other holdings.

2.7.3 Value of output

Details of product and by product for the year 2023-24 is given below.

Table 2.7.5: Value of output during the year 2023-24

Holding size class	Product (in Rs.)
Small	862960
Medium	1066118
Large	1658106
All Sizes	1160056

It is clear from the above table that large holding size class consistently demonstrates higher production level compared to the small and medium classes.

Table 2.7.6: Input cost, output cost and Input-output ratio of Ginger per hectare (in Rs.) from 2019 -20 to 2023-24

Year	Components		
	Input Cost (Rs.)	Output Cost (Rs.)	Input-output ratio
2019-20	204188	599480	2.94
2020-21	199246	498727	2.50
2021-22	209257	452175	2.16
2022-23	210022	637842	3.04
2023-24	273571	1160056	4.2

Figure 2.7.3: Input cost, output cost and input-output ratio of ginger per hectare (in Rs.) from 2019 -20 to 2023-24

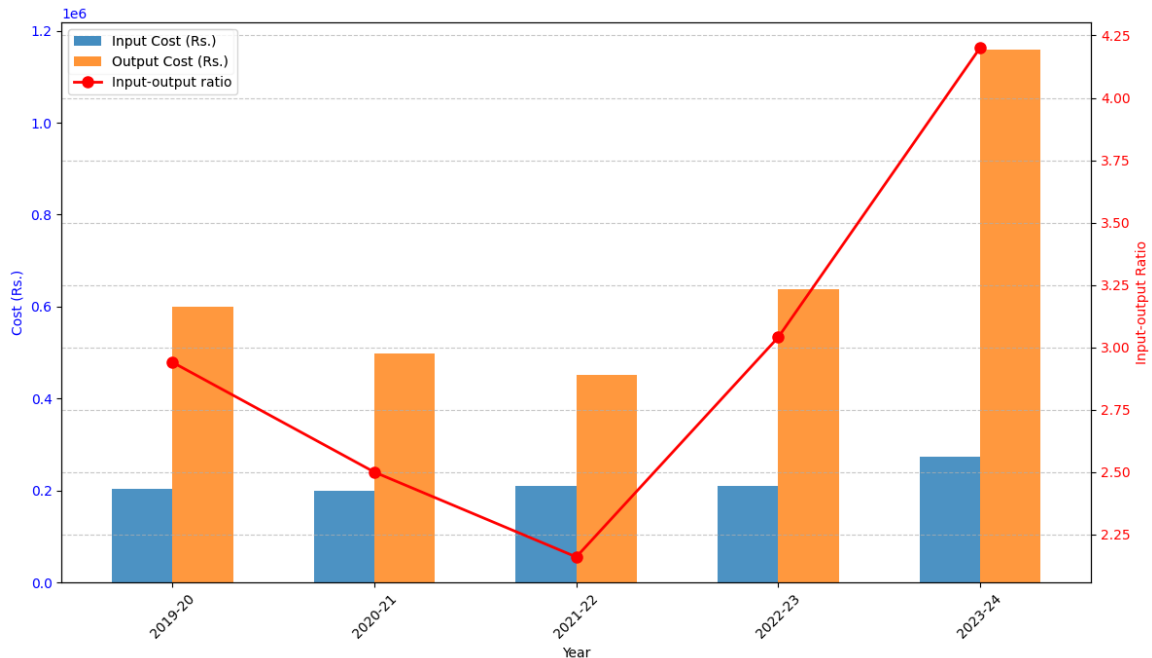
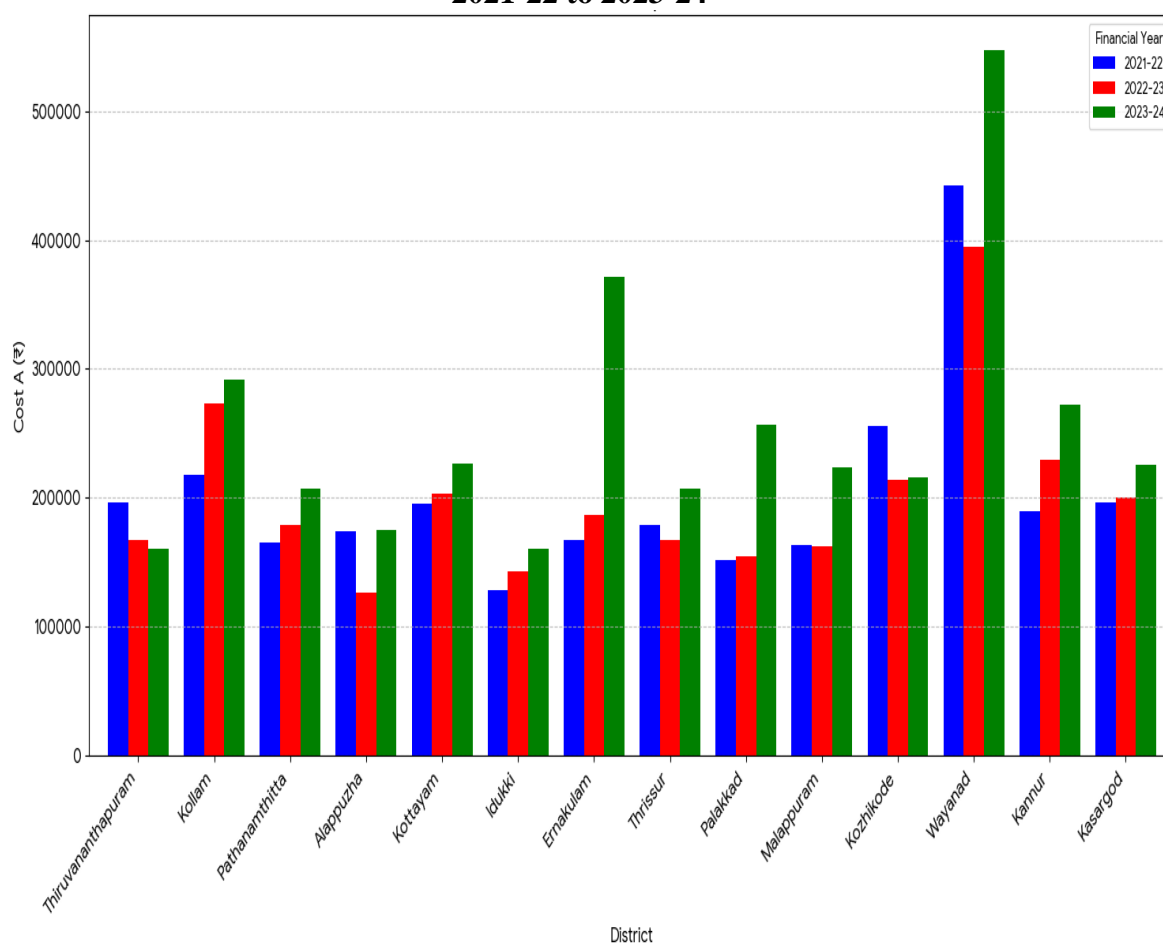


Table 2.7.7: District wise Cost of Cultivation (In Rs.) Per Hectare of Ginger from 2021-22 to 2023-24

DISTRICT	COST A		
	2021-22	2022-23	2023-24
Thiruvananthapuram	196354	167536	161013
Kollam	217925	273624	292192
Pathanamthitta	165223	179363	207149
Alappuzha	174101	126781	175202
Kottayam	195889	203228	226545
Idukki	128232	142653	160532

Ernakulam	167531	187225	371312
Thrissur	178686	167294	207028
Palakkad	151890	154394	256421
Malappuram	163494	162850	223828
Kozhikode	256079	214462	215528
Wayanad	442702	394636	546995
Kannur	189374	229794	271897
Kasargod	196787	200685	225402

Figure 2.7.4: District wise Cost of Cultivation (In Rs.) Per Hectare of Ginger From 2021-22 to 2023-24



2.8.1 Area under Turmeric Cultivation

Details of holding selected and area coverage for this study are given below. The study on turmeric cultivation covers a total of 501 holdings across an area of 28.06 hectares.

Table 2.8.1: Number of holdings and area under Turmeric Cultivation

Holding size class	Sample size (No.s)	Area under the crop in the sample (ha)	Percentage Area	Average Area Per holding (ha)
Small	475	19.59	70	0.04
Medium	25	6.85	24	0.27
Large	1	1.62	6	1.62
Total	501	28.06	100	0.06

2.8.2 Cost of cultivation

The estimated cost of cultivation of different items per hectare of Turmeric is furnished in the below table.

Table 2.8.2: Cost of Cultivation per hectare (in Rs.) of Turmeric

Sl.No	Components	Holding Size Class			
		Small	Medium	Large	All Sizes
1	Hired human labour	60669	94414	22153	66688
2	Animal labour	0	0	0	0
3	Machine labour	1337	6449	0	2508
4	Seed /seedlings	35881	28088	44460	34472
5	Farmyard manure and chemical fertilizers	32328	20473	20995	28779
6	Plant Protection	235	387	0	259
7	Land tax and irrigation cess	705	793	0	685
8	Repair and maintenance charges of implements, machinery and building	1772	117	0	1265
9	Interest on working capital	13045	14981	8761	13271
10	Other expenses	9593	12685	30875	11577
11	Total cost 'A'(1-10)	155565	178387	127244	159505
12	Interest on fixed capital	8650	5984	49647	10366
13	Cost 'B1'(11+12)	164215	184371	176891	169871
14	Interest on land value	931416	1158487	522720	963291
15	Cost 'B'(13+14)	1095631	1342858	699611	1133161
16	Inputed value of household labour	78776	22100	3396	60584
17	Cost 'C'(15+16))	1174407	1364958	703007	1193745

Figure 2.8.1: Cost A per hectare of Turmeric during 2023-24

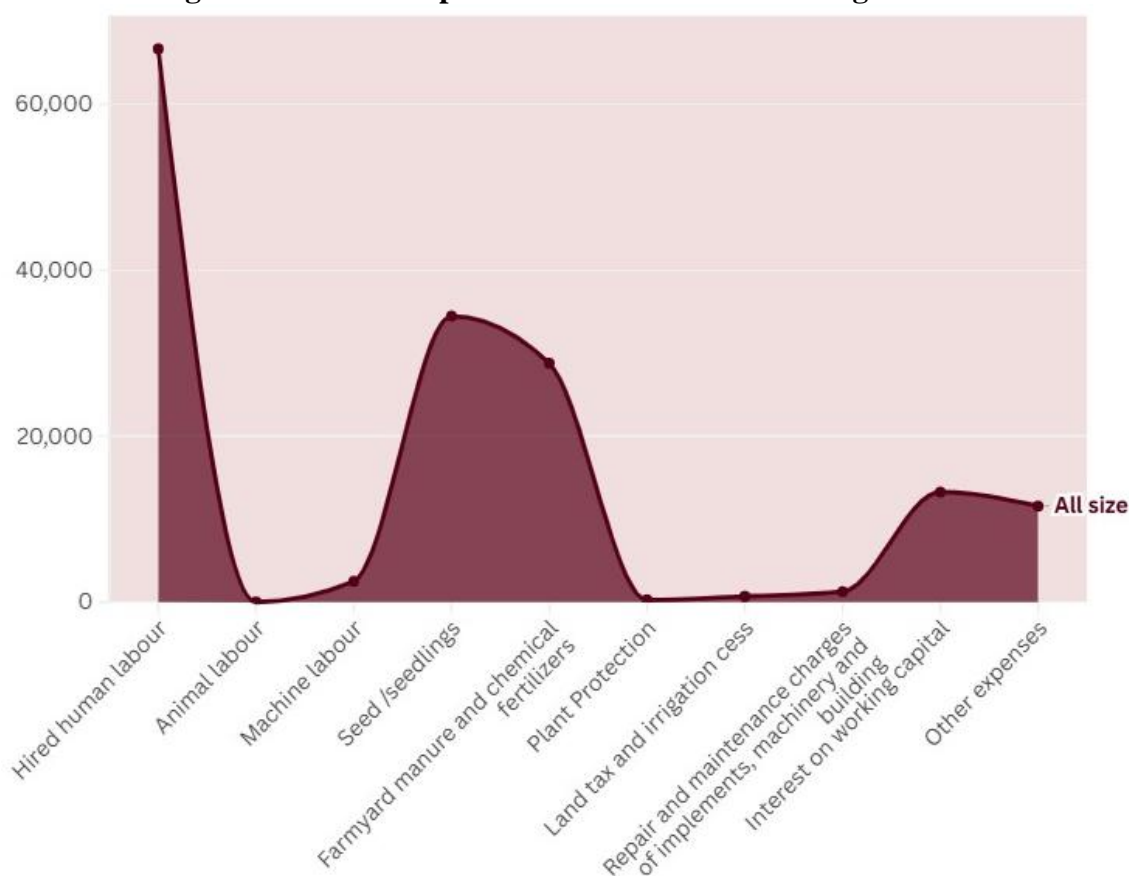


Table 2.8.3: Percentage of hired human labour hours to total labour hours of Turmeric during 2023-24

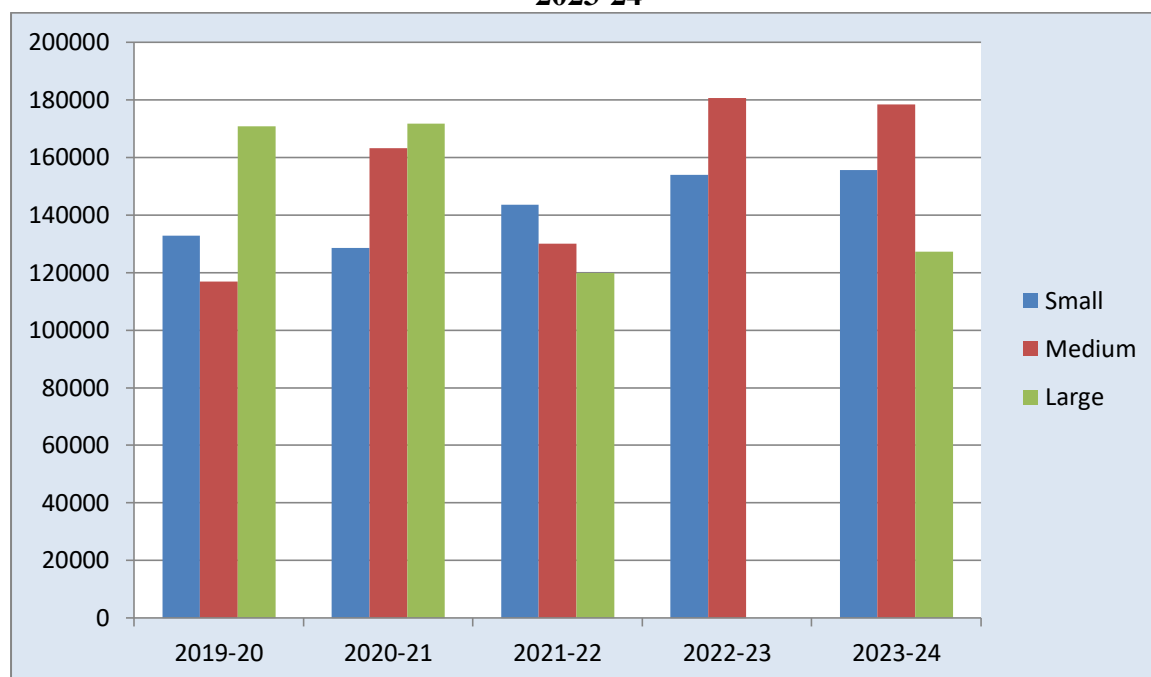
Sex	Holding Size Class			
	Small	Medium	Large	All Sizes
Male	32.55	46.94	86.71	36.45
Female	15.73	40.35	-	17.97
Total	48.28	87.29	86.71	54.42

Here the total labour is the sum of hired human labour and household human labour.

Table 2.8.4: Cost of cultivation of Turmeric per hectare (in Rs.) from 2019 -20 to 2023-24

Holding size class	Cost A (Rs.)				
	2019-20	2020-21	2021-22	2022-23	2023-24
Small	132781	128538	143553	153892	155565
Medium	116816	163284	129966	180629	178387
Large	170771	171779	119805	-	127244
All Sizes	129665	141668	138264	161843	159505

Figure 2.8.2: Cost of cultivation of Turmeric per hectare (in Rs.) from 2019-20 to 2023-24



2.8.3 Value of output

Details of product and by product for the year **2023-24** are given below.

Table 2.8.5: Value of output during the year 2023-24

Year	Holding size class	Product/Byproduct (in Rs.)
2023-24	Small	348535
	Medium	332007
	Large	259668
	All Sizes	339370

Table 2.8.6: Input cost, output cost and Input-output ratio of Turmeric per hectare (in Rs.) from 2019 -20 to 2023-24

Year	Components		
	Input Cost (Rs.)	Output Cost (Rs.)	Input-output ratio
2019-20	129665	301175	2.32
2020-21	141668	287974	2.03
2021-22	138264	291072	2.11
2022-23	161843	380041	2.35
2023-24	159505	339370	2.13

Figure 2.8.3: Input cost, output cost and Input-output ratio of Turmeric per hectare (in Rs.) from 2019 -20 to 2023-24

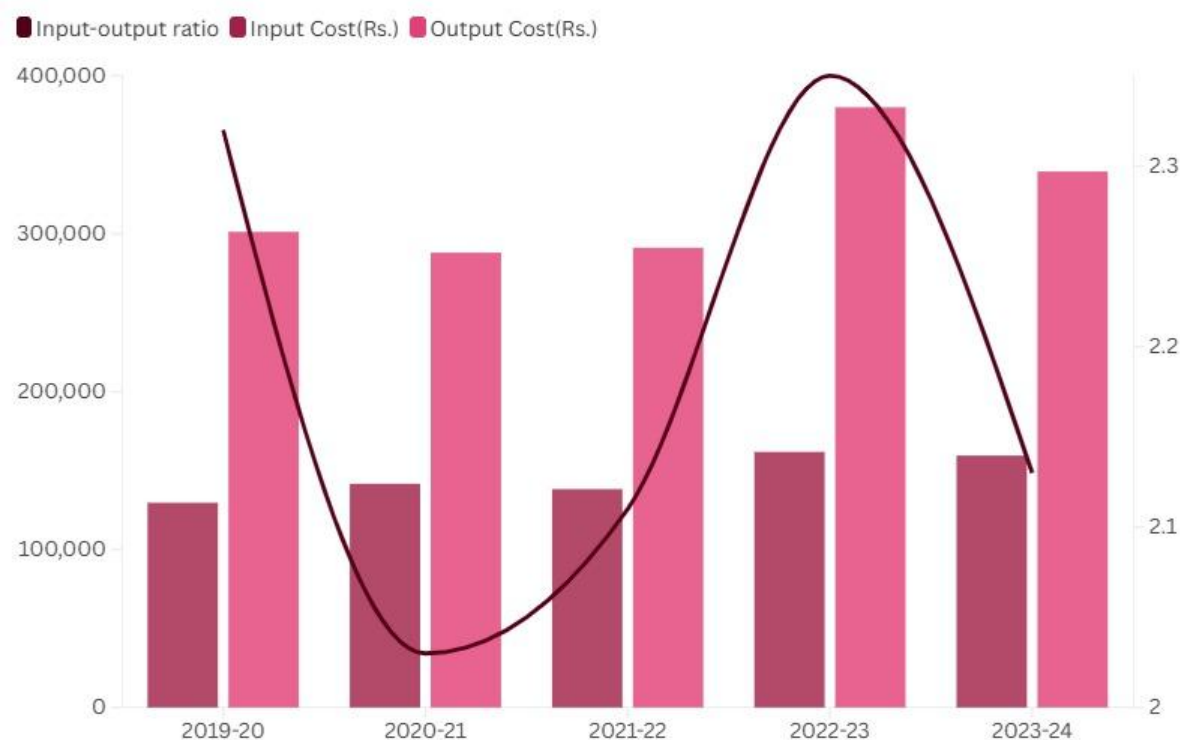
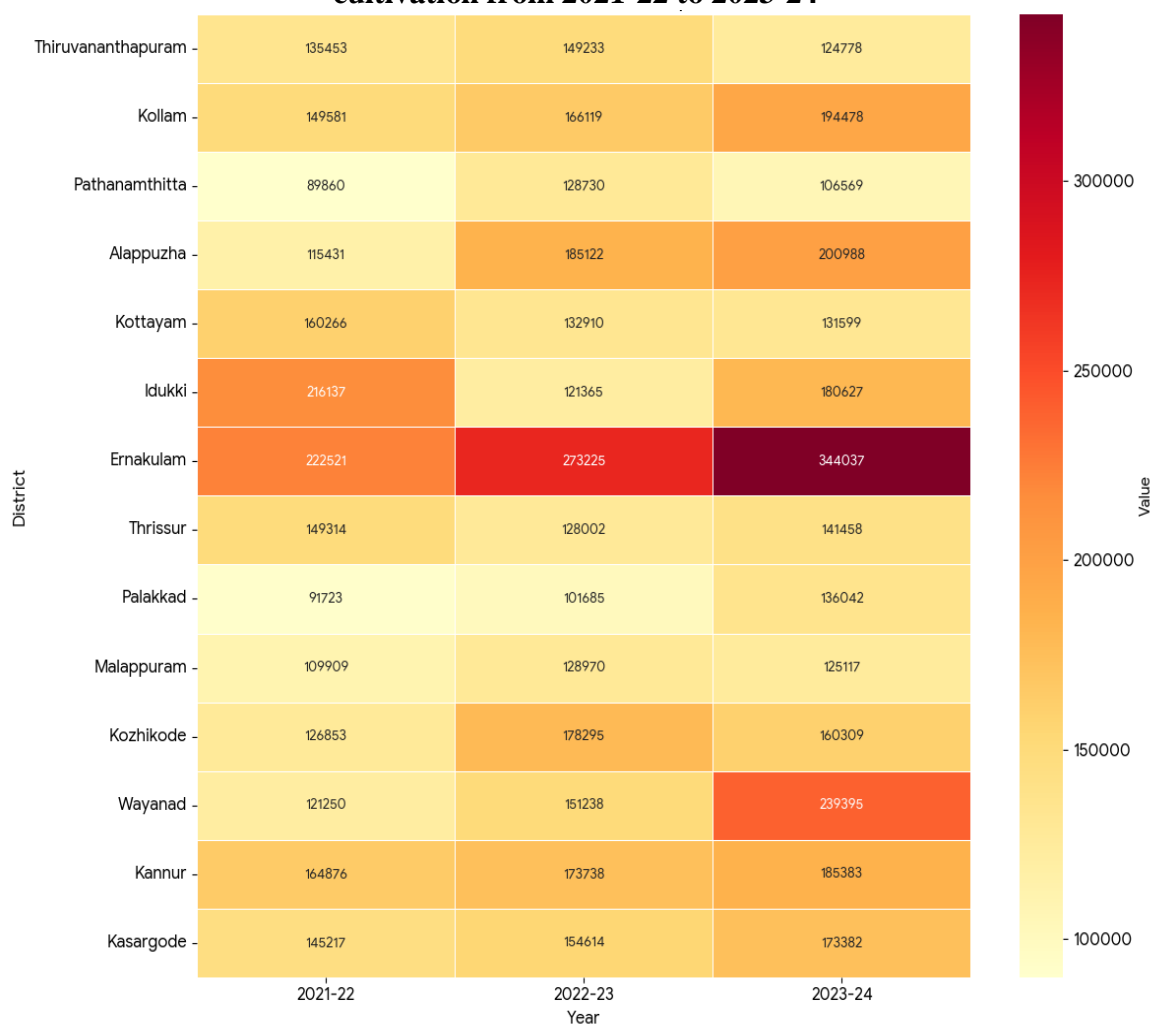


Table 2.8.7: Districtwise cost of cultivation (in Rs) per hectare of turmeric cultivation from 2021-22 to 2023-24

District	2021-22	2022-23	2023-24
Thiruvananthapuram	135453	149233	124778
Kollam	149581	166119	194478
Pathanamthitta	89860	128730	106569
Alappuzha	115431	185122	200988
Kottayam	160266	132910	131599
Idukki	216137	121365	180627
Ernakulam	222521	273225	344037
Thrissur	149314	128002	141458
Palakkad	91723	101685	136042
Malappuram	109909	128970	125117
Kozhikode	126853	178295	160309
Wayanad	121250	151238	239395
Kannur	164876	173738	185383
Kasargod	145217	154614	173382

Figure 2.8.4: Districtwise cost of cultivation (in Rs) per hectare of turmeric cultivation from 2021-22 to 2023-24



2.9

PINEAPPLE

2.9.1 Area under Pineapple cultivation during 2023-24

Details of holding selected and area coverage for this study are given below. Data was collected from 209 holdings across different size classes, covering a total of 524.75 hectares of land.

Table 2.9.1: Number of holdings and area under Pineapple

Holding size class	Sample size (No.s)	Area under the crop in the sample (ha)	Percentage Area	Average Area Per holding (ha)
Small	49	2.64	1	0.05
Medium	31	13.99	2	0.45
Large	129	508.12	97	3.94
Total	209	524.75	100	2.51

2.9.2 Cost of cultivation

The estimated cost of cultivation of different items per hectare of Pineapple is furnished in the below table.

Table 2.9.2: Cost of Cultivation per hectare (in Rs.) of Pineapple

Sl.No.	Components	Holding Size Class			
		Small	Medium	Large	All Sizes
1	Hired human labour	103556	69067	59141	59629
2	Animal labour	0	0	0	0
3	Machine labour	0	3489	9576	9366
4	Seed /seedlings	67296	74005	100829	99945
5	Farmyard manure and chemical fertilizers	20340	28217	23101	23224
6	Plant Protection	2108	6070	5203	5211
7	Land tax and irrigation cess	608	217	41	49
8	Repair and maintenance charges of implements, machinery and building	2553	336	72	91
9	Interest on working capital	19330	18085	19785	19737
10	Other expenses	9747	30316	59438	58411
11	Total cost 'A'(1-10)	225539	229801	277186	275663
12	Interest on fixed capital	3483	1146	336	374
13	Cost 'B1'(11+12)	229022	230947	277522	276036
14	Interest on land value	800296	1606668	792830	814562

15	Cost 'B'(13+14)	1029319	1837615	1070352	1090598
16	Imputed value of household labour	25982	19428	3389	3930
17	Cost 'C'(15+16)	1055301	1857043	1073742	1094529

Figure 2.9.1: Cost of cultivation of Pineapple per hectare(in Rs during 2023-24

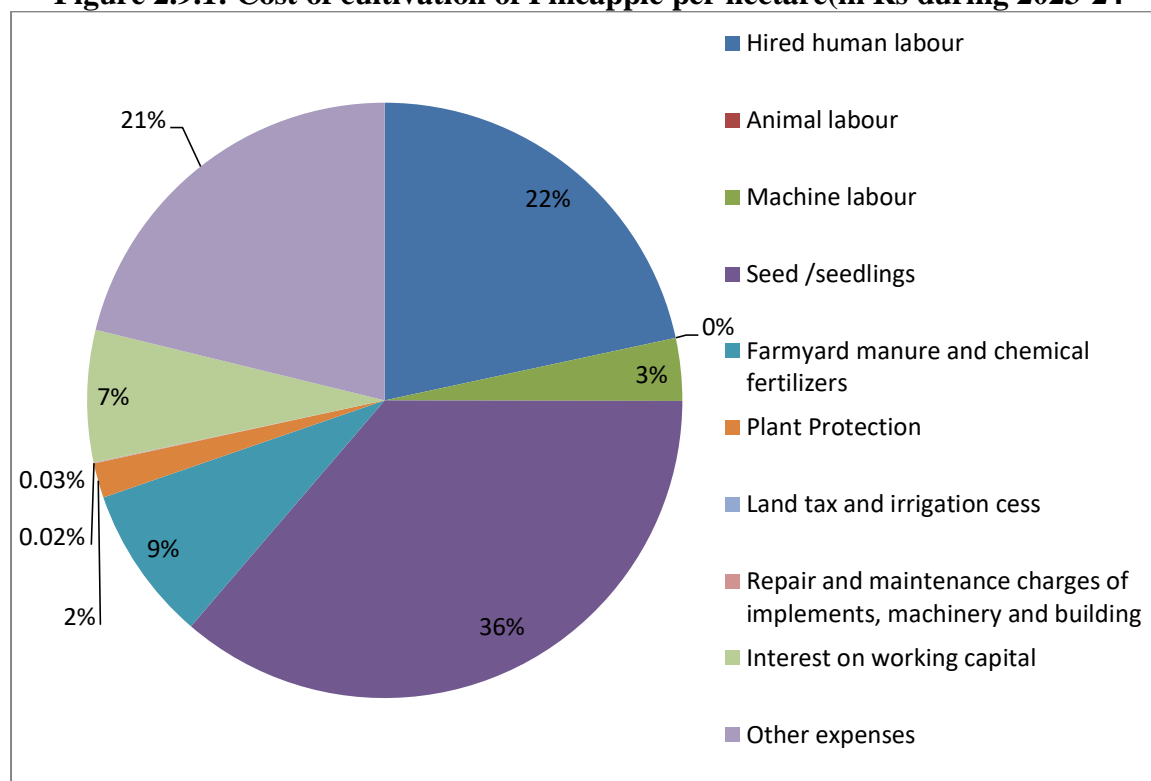


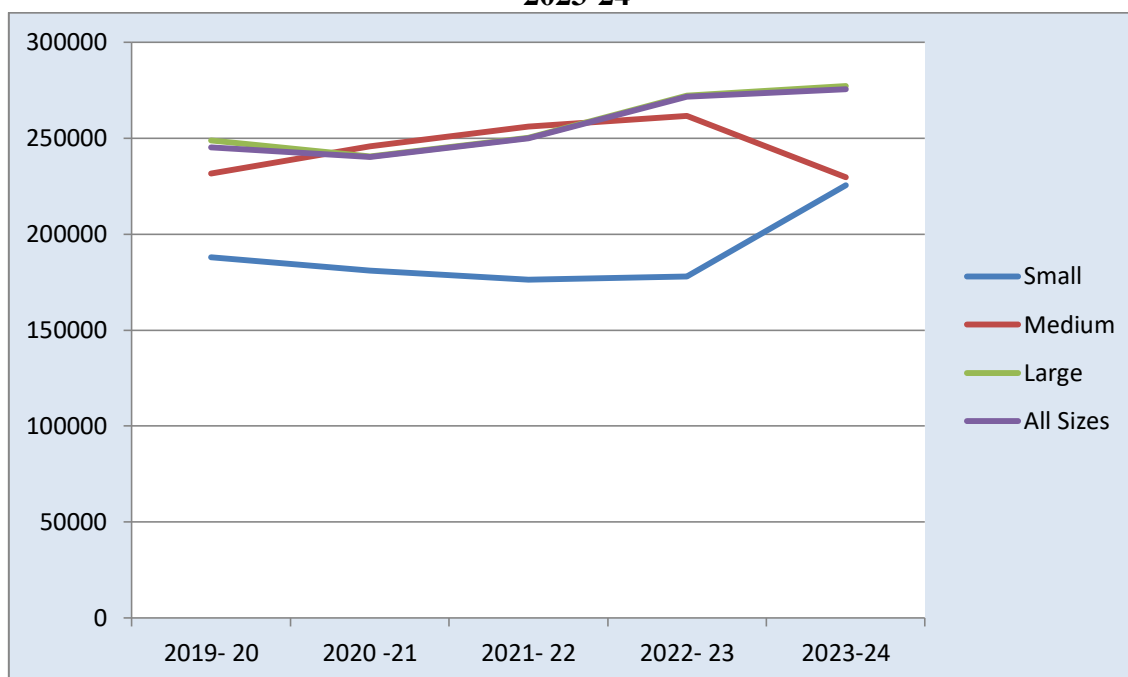
Table 2.9.3: Percentage of hired human labour hours to total labour hours of Pineapple during 2023 - 24

Sex	Holding Size Class			
	Small	Medium	Large	All Sizes
Male	77.37	66.00	76.92	76.54
Female	10.19	25.57	43.18	17.19
Total	87.56	91.57	120.10	93.73

Table 2.9.4: Cost of cultivation of Pineapple per hectare (in Rs.) from 2019 -20 to 2023-24

Holding size class	Cost A(Rs.)				
	2019- 20	2020 - 21	2021- 22	2022- 23	2023-24
Small	188043	180893	176333	178107	225539
Medium	231501	245740	255961	261774	229801
Large	248962	240599	250290	272268	277186
All Sizes	245327	240287	250088	271534	275663

Figure 2.9.2: Cost of cultivation of Pineapple per hectare (in Rs.)from 2019 -20 to 2023-24



2.9.3 Value of output

Details of product and byproduct for the year **2023-24** is given below.

Table 2.9.5: Value of output during the year 2023-24

Year	Holding size class	Product/Byproduct (in Rs.)		
		Product	Byproduct	Total
2023-24	Small	298322	25969	324291
	Medium	427311	17551	444862
	Large	539812	95215	635027
	All Sizes	535598	92796	628394

Table 2.9.6: Input cost, output cost and Input-output ratio of Pineapple per hectare (in Rs.) from 2019 -20 to 2023-24

Year	Components		
	Input Cost (Rs.)	Output Cost (Rs.)	Input-output ratio
2019-20	245327	364160	1.48
2020-21	240287	378147	1.57
2021-22	250088	420453	1.68
2022-23	271534	448340	1.65
2023-24	275663	628394	2.28

Figure 2.9.3: Input cost, output cost and Input-output ratio of Pineapple per hectare (in Rs.) from 2019 -20 to 2023-24

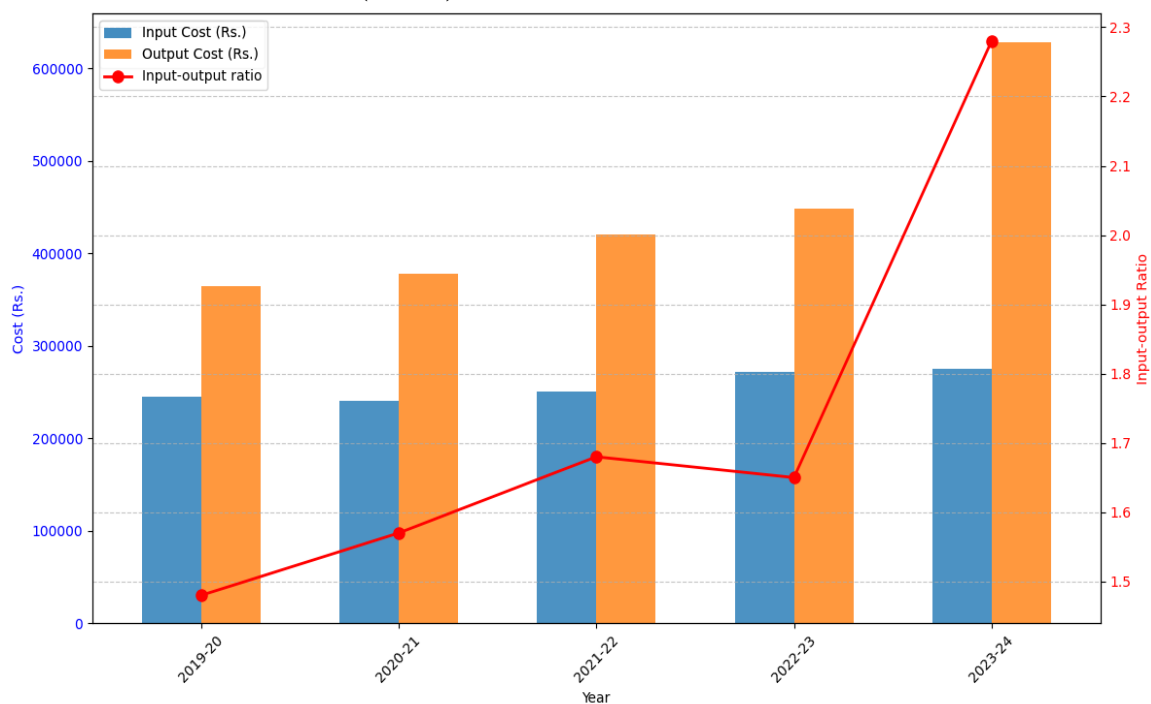
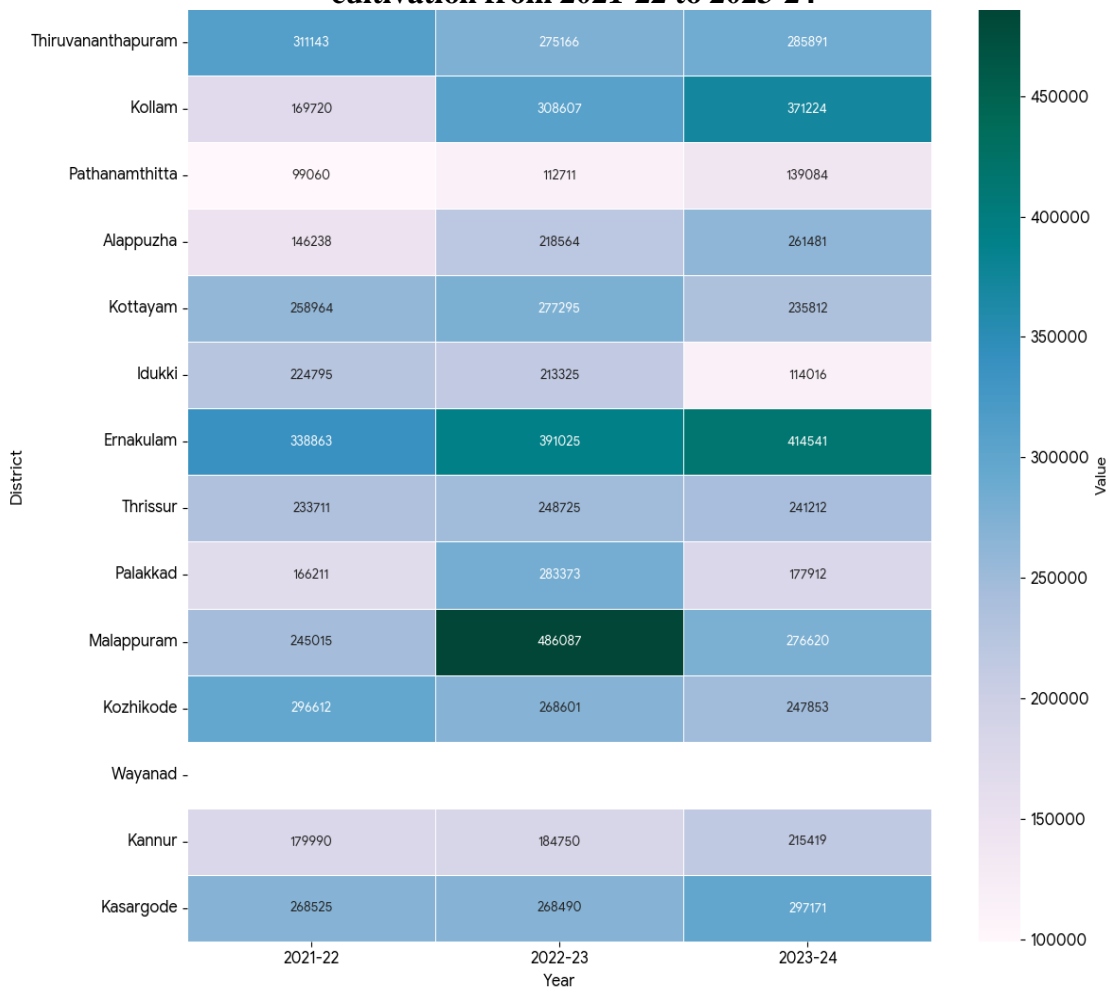


Table 2.9.7: Districtwise cost of cultivation (in Rs) per hectare of pineapple cultivation from 2021-22 to 2023-24

District	2021-22	2022-23	2023-24
Thiruvananthapuram	311143	275166	285891
Kollam	169720	308607	371224
Pathanamthitta	99060	112711	139084
Alappuzha	146238	218564	261481
Kottayam	258964	277295	235812
Idukki	224795	213325	114016
Ernakulam	338863	391025	414541
Thrissur	233711	248725	241212
Palakkad	166211	283373	177912
Malappuram	245015	486087	276620
Kozhikode	296612	268601	247853
Kannur	179990	184750	215419
Kasargod	268525	268490	297171

Figure 2.9.4: Districtwise cost of cultivation (in Rs) per hectare of Pineapple cultivation from 2021-22 to 2023-24



2.10.1 Bitter Gourd-Autumn (Virippu)**2.10.1.1 Area under Bitter Gourd-Autumn Cultivation during 2023-24**

As compared to previous years, total area of Bitter Gourd-Autumn during the period 2023-24 is 31.75 Ha which is higher as compared to 2022-23 which is 30.73Ha.

Table 2.10.1.1: Number of holdings and area under Bitter Gourd -Autumn

Holding size class	Sample size (No.s)	Area under the crop in the sample (ha)	Percentage Area	Average Area Per holding (ha)
Small	203	12.48	39	0.06
Medium	46	15.02	47	0.33
Large	5	4.25	14	0.85
Total	254	31.75	100	0.13

2.10.1.2 Cost of cultivation

The estimated cost of cultivation of different items per hectare of **Bitter Gourd -Autumn** is furnished in the below table.

Table 2.10.1.2: Cost of Cultivation per hectare (in Rs.) of Bitter Gourd –Autumn

Sl. No	Components	Holding Size Class			
		Small	Medium	Large	All Sizes
1	Hired human labour	71901	50430	53552	59288
2	Animal labour	0	0	0	0
3	Machine labour	525	3722	19995	4644
4	Seed /seedlings	10996	9158	15196	10689
5	Farmyard manure and chemical fertilizers	31996	24649	14325	26155
6	Plant Protection	4373	2531	4307	3492
7	Land tax and irrigation cess	288	200	800	315
8	Repair and maintenance charges of implements, machinery and building	3297	346	0	1460
9	Interest on working capital	11979	9049	10738	10427
10	Other expenses	42506	34470	18031	35428
11	Total cost 'A'(1-10)	177860	134555	136944	151897
12	Interest on fixed capital	17847	9434	23022	14561
13	Cost 'B1'(11+12)	195707	143988	159965	166459

14	Interest on land value	582610	411934	198766	450487
15	Cost 'B'(13+14)	778318	555922	358732	616945
16	Imputed value of household labour	121948	50640	16231	74064
17	Cost 'C'(15+16)	900265	606562	374963	691009

Figure 2.10.1.1: Cost of Cultivation per hectare (in Rs.) of Bitter Gourd (Autumn)

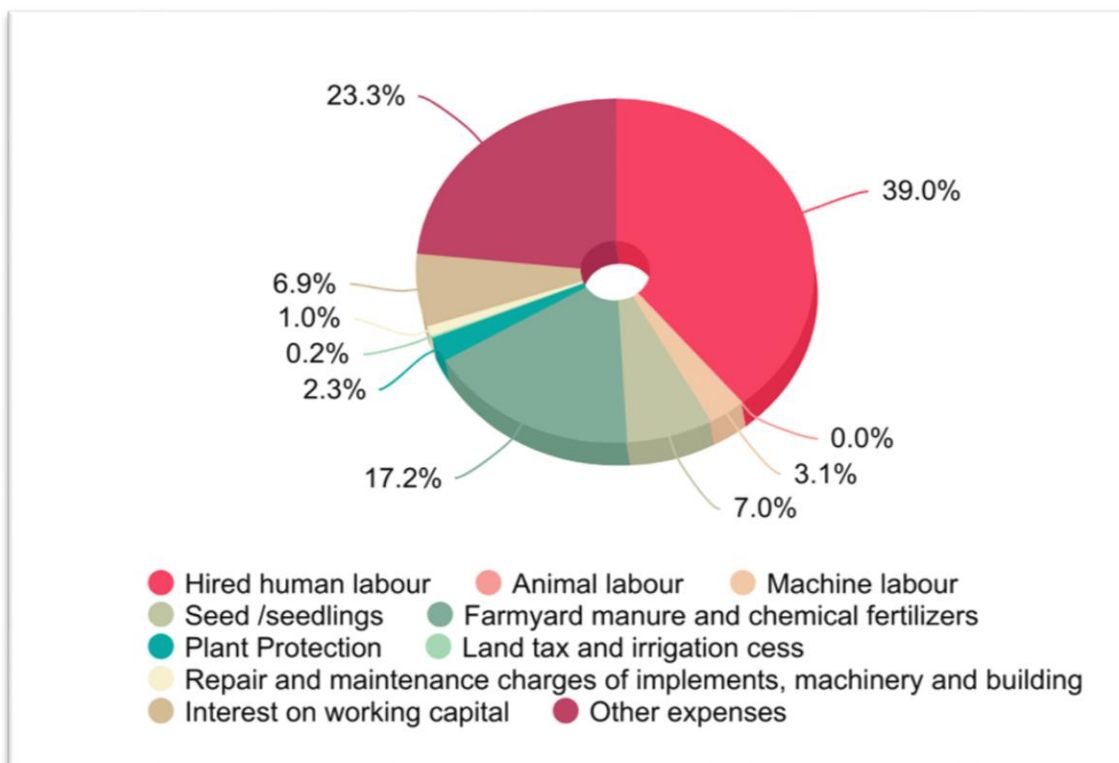


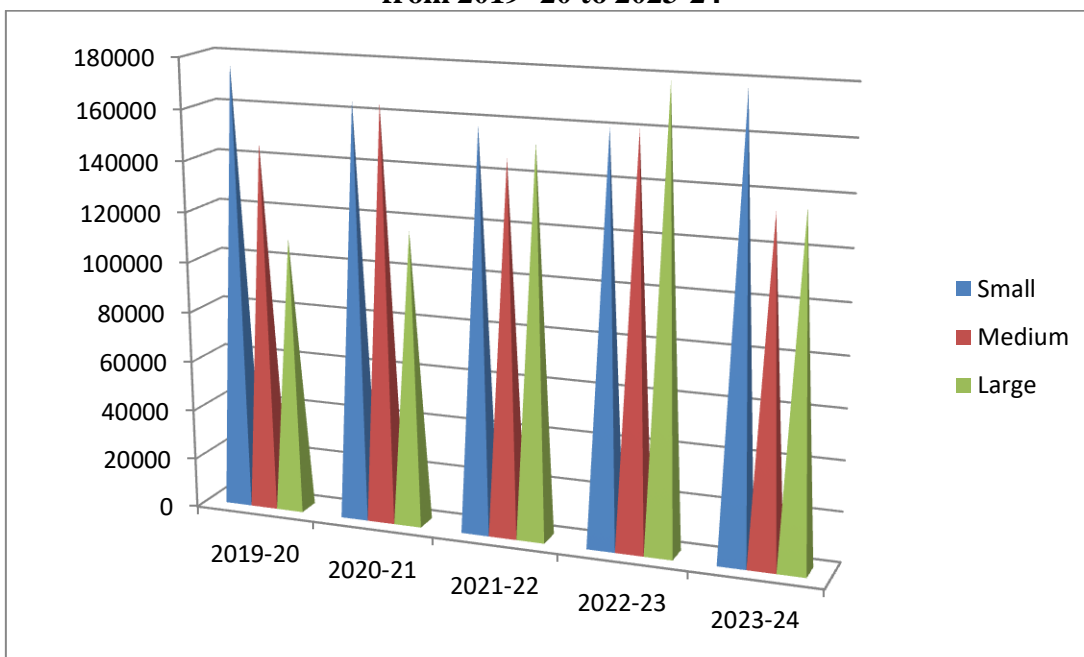
Table 2.10.1.3: Percentage of hired human labour hours to total labour hours of Bitter Gourd Autumn during 2023-24

Sex	Holding Size Class			
	Small	Medium	Large	All Sizes
Male	31.78	29.32	19.15	29.59
Female	3.08	26.76	44.03	16.9
Total	34.86	56.08	63.18	46.49

Table 2.10.1.4: Cost of cultivation of Autumn Bitter Gourd per hectare (in Rs.) from 2019-20 to 2023-24

Holding size class	Cost A(Rs.)				
	2019-20	2020-21	2021-22	2022-23	2023-24
Small	176395	165063	158659	160971	177860
Medium	146454	164729	147116	161017	134555
Large	109593	116527	153697	178800	136944
All Sizes	145821	157599	153310	162523	151897

Figure 2.10.1.2: Cost of cultivation of Autumn Bitter Gourd per hectare (in Rs.) from 2019 -20 to 2023-24



2.10.1.3 Value of output

Details of product and by product for the year 2023-24 is given below.

Table 2.10.1.5: Value of output during the year 2023-24

Year	Holding size class	Product/Byproduct (inRs.)
2023-24	Small	468795
	Medium	403638
	Large	616307
	All Sizes	457722

Table 2.10.1.6: Input cost, output cost and Input-output ratio of Autumn Bitter Gourd per hectare (in Rs.) from 2019-20 to 2023-24

Year	Components		
	Input Cost(Rs.)	Output Cost(Rs.)	Input-output ratio
2019-20	145821	407637	2.80
2020-21	157599	395636	2.51
2021-22	153310	344280	2.25
2022-23	162523	431547	2.66
2023-24	151897	457722	3.01

Figure 2.10.1.4: Input cost, output cost and Input-output ratio of Bitter Gourd Autumn per hectare (in Rs.) from 2019 -20 to 2023-24

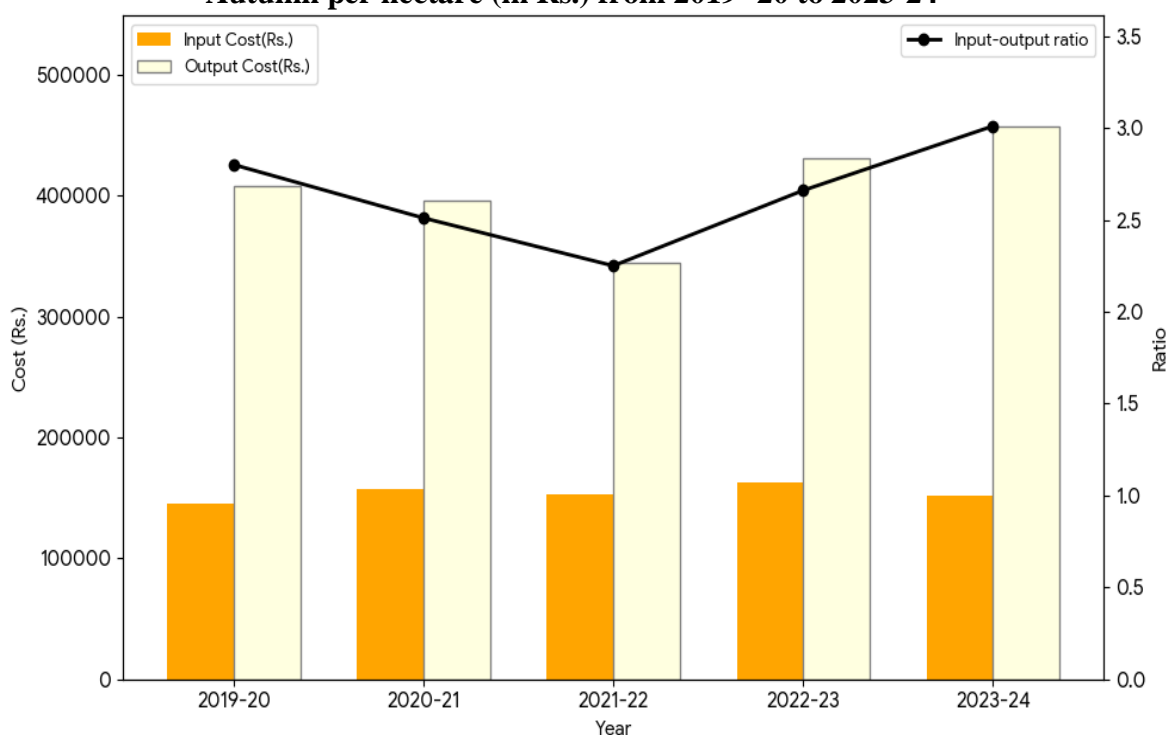
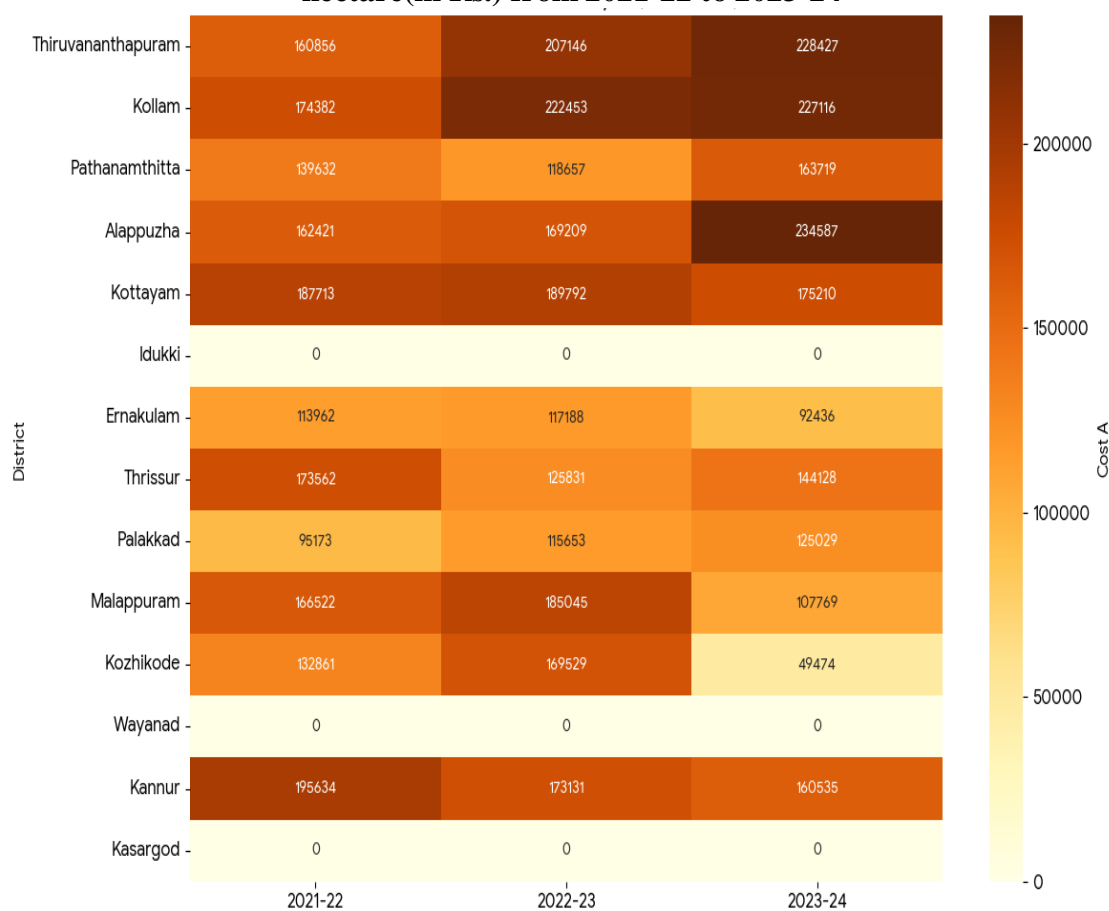


Table 2.10.1.7: Districtwise Cost of cultivation of Autumn Bitter Gourd per hectare(in Rs.) from 2021-22 to 2023-24

District	Cost A		
	2021-22	2022-23	2023-24
Thiruvananthapuram	160856	207146	228427
Kollam	174382	222453	227116
Pathanamthitta	139632	118657	163719
Alappuzha	162421	169209	234587
Kottayam	187713	189792	175210
Ernakulam	113962	117188	92436
Thrissur	173562	125831	144128
Palakkad	95173	115653	125029
Malappuram	166522	185045	107769
Kozhikode	132861	169529	49474
Kannur	195634	173131	160535

Figure 2.10.1.4: Districtwise Cost of cultivation of Autumn Bitter Gourd per hectare(in Rs.) from 2021-22 to 2023-24



2.10.2 Bitter Gourd -Winter (Mundakan) during 2023-24

2.10.2.1 Area under Bitter Gourd –Winter Cultivation

As compared to previous years, total area of Bitter Gourd-Winter during the period 2023-24 is 26.28 Ha which is lower as compared to 2022-23 which is 27.61Ha.

Table 2.10.2.1: Number of holdings and area under Bitter Gourd - Winter

Holding size class	Sample size (No.s)	Area under the crop in the sample (ha)	Percentage Area	Average Area Per holding (ha)
Small	229	13.77	52	0.06
Medium	32	10.28	39	0.32
Large	2	2.23	9	1.12
Total	263	26.28	100	0.10

2.10.2.2 Cost of cultivation

The estimated cost of cultivation of different items per hectare of Bitter Gourd Winter is furnished in the below table.

Table 2.10.2.2: Cost of Cultivation per hectare (in Rs.) of Bitter Gourd Winter

Sl.No	Components	Holding Size Class			
		Small	Medium	Large	All Sizes
1	Hired human labour	64131	59783	58438	61948
2	Animal labour	0	0	0	0
3	Machine labour	1610	3180	5681	2569
4	Seed /seedlings	10687	8005	16598	10138
5	Farmyard manure and chemical fertilizers	33361	21581	14813	27181
6	Plant Protection	3310	5816	4893	4425
7	Land tax and irrigation cess	376	382	988	430
8	Repair and maintenance charges of implements, machinery and building	1875	2606	0	2002
9	Interest on working capital	11310	9836	10042	10626
10	Other expenses	42601	28474	6287	33997
11	Total cost 'A'(1-10)	169261	139663	117741	153316
12	Interest on fixed capital	17692	13468	26501	16788
13	Cost 'B1'(11+12)	186953	153131	144241	170104
14	Interest on land value	677647	349752	98998	500335
15	Cost 'B'(13+14)	864600	502883	243239	670438
16	Inputed value of household labour	119012	59883	5052	86223
17	Cost 'C'(15+16)	983612	562766	248291	756662

Figure 2.10.2.1: Cost of Cultivation per hectare (in Rs.) of Bitter Gourd Winter

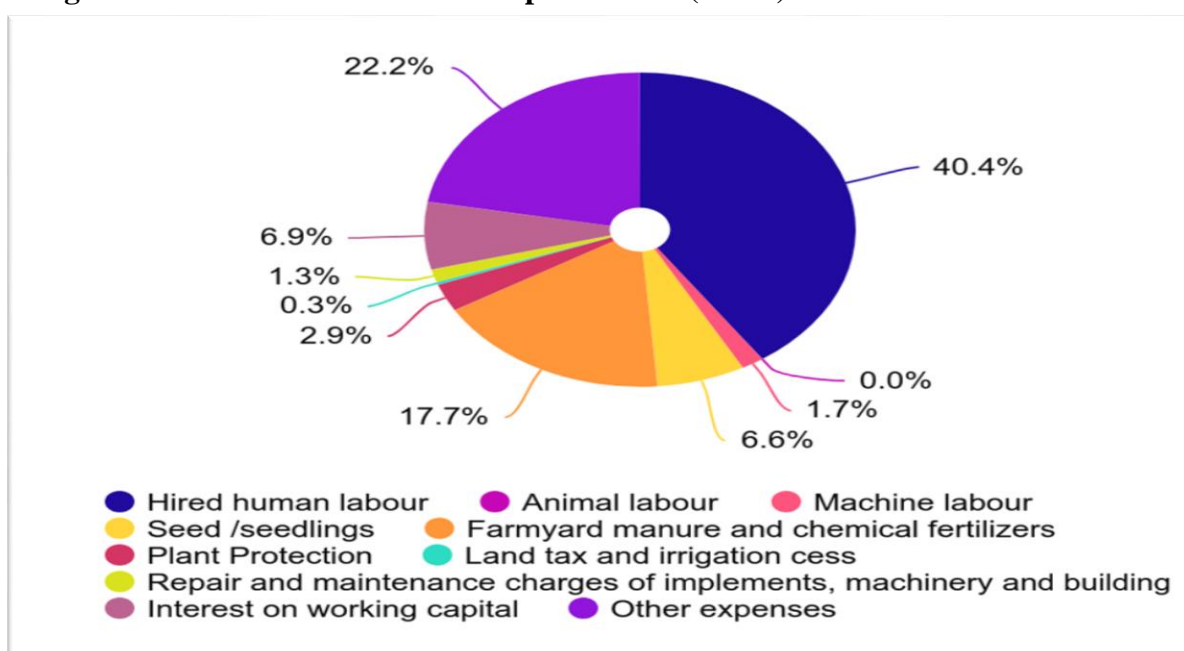


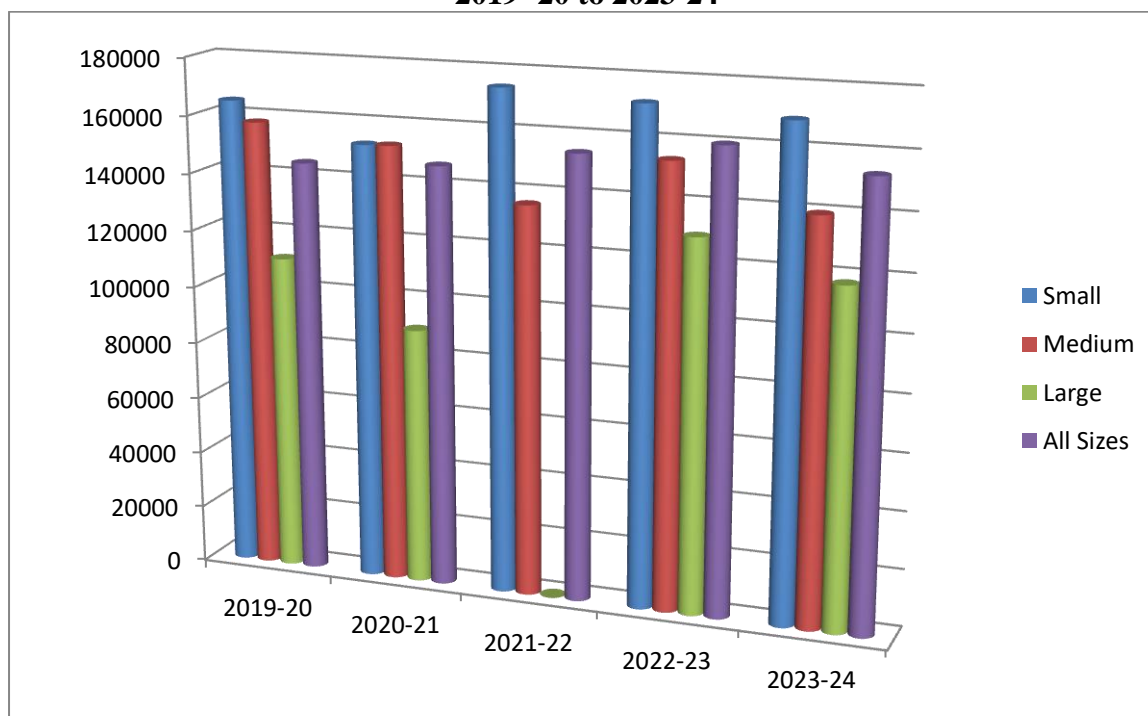
Table 2.10.2.3: Percentage of hired human labour hours to total labour hours of Bitter Gourd Winter during 2023-24

Sex	Holding Size Class			
	Small	Medium	Large	All Sizes
Male	31.54	37.01	24.01	32.88
Female	6.13	21.69	47.63	13.41
Total	37.67	58.7	71.64	46.29

Table 2.10.2.4: Cost of cultivation of Bitter Gourd Winter per hectare (in Rs.) from 2019 -20 to 2023-24

Holding size class	Cost A(in Rs.)				
	2019-20	2020-21	2021-22	2022-23	2023-24
Small	164815	152506	174423	171924	169261
Medium	157757	152720	135985	153917	139663
Large	110817	89739	-	129600	117741
All Sizes	144796	146981	154286	160013	153316

Figure 2.10.2.2: Cost of cultivation of Winter Bitter Gourd per hectare(in Rs.)from 2019 -20 to 2023-24



2.10.2.3 Value of output

Details of product and by product for the year 2023-24 is given below.

Table 2.10.2.5: Value of output during the year 2023-24

Year	Holding size class	Product/Byproduct (in Rs.)
2023-24	Small	447358
	Medium	392537
	Large	601220
	All Sizes	438945

Table. 2.10.2.6 Input cost, Out put cost and input-output cost ratio of Bitter Gourd Winter per hectare (in Rs.) from 2019-20 to 2023-24

Year	Components		
	Input Cost	Output Cost	Input-output ratio
2019-20	144796	412135	2.85
2020-21	146981	359384	2.45
2021-22	154286	402864	2.61
2022-23	160013	467260	2.92
2023-24	153316	438945	2.86

Figure 2.10.2.3: Input cost, output cost and Input-output ratio of Bitter Gourd Winter per hectare (in Rs.) from 2019 -20 to 2023-24

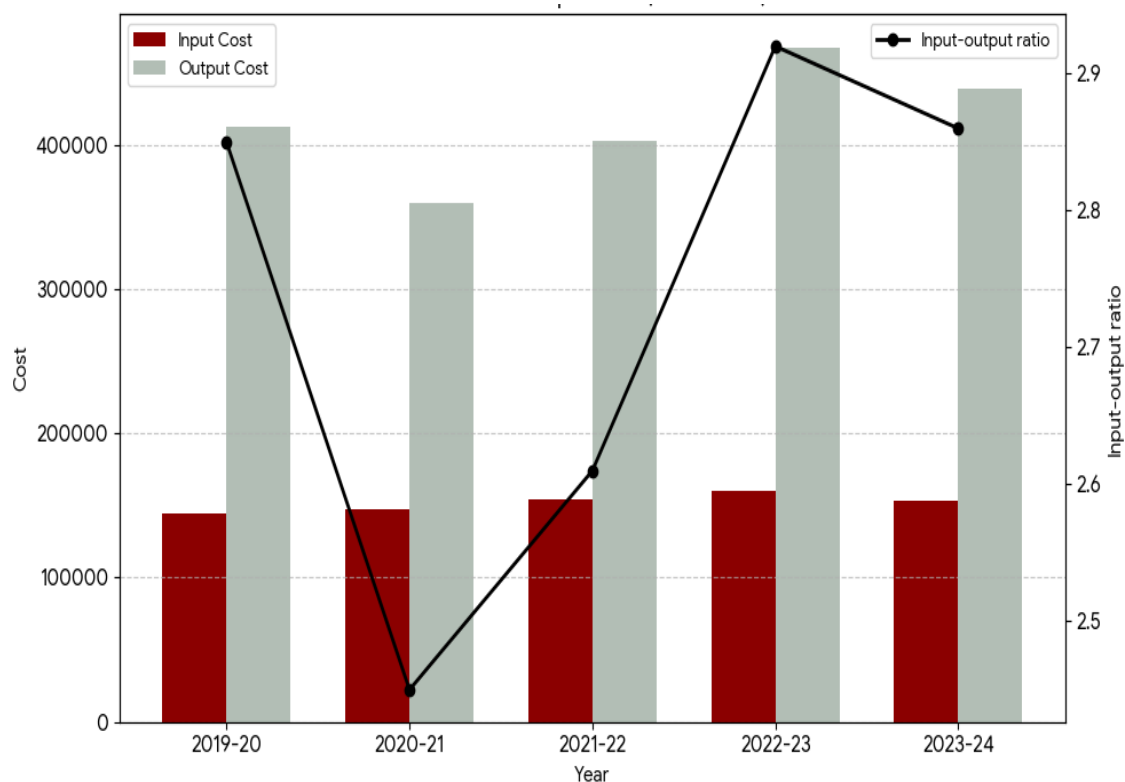


Table 2.10.2.7: Districtwise Cost of cultivation of Winter Bitter Gourd per hectare(in Rs.) from 2021 -22 to 2023 -24

District	Cost A		
	2021-22	2022-23	2023-24
Thiruvananthapuram	199675	229616	160200
Kollam	229237	237426	245655
Pathanamthitta	276783	148033	139973
Alappuzha	130848	206602	208721
Kottayam	162455	186133	215368
Idukki	102989	109842	132828
Ernakulam	122583	114662	96083
Thrissur	140861	111991	159797
Palakkad	93802	124908	116364
Malappuram	124757	142862	126196
Kozhikode	111655	97783	119584
Wayanad	68302	62803	0
Kannur	224317	188637	159566
Kasargod	143103	173958	182517

Table 2.10.2.4 :Districtwise Cost of cultivation of Winter Bitter Gourd per hectare(in Rs.) from 2021 -22 to 2023 -24



2.10.3 Bitter Gourd -Summer(Puncha) during 2023-24

2.10.3.1 Area under Bitter Gourd –Summer cultivation

As compared to previous years, total area of Bitter Gourd-summer during the period 2023-24 is 14.66 Ha which is higher as compared to 2022-23 which is 13.84Ha.

Table 2.10.3.1: : Number of holdings and area under Bitter Gourd- Summer

Holding size class	Sample size (No.s)	Area under the crop in the sample (ha)	Percentage Area	Average Area Per holding (ha)
Small	186	8.35	57	0.04
Medium	25	6.31	43	0.25
Large	-	-	-	-
Total	211	14.66	100	0.07

2.10.3.2 Cost of cultivation

The estimated cost of cultivation of different items per hectare of **Bitter Gourd Summer** is furnished in the below table.

Table 2.10.3.2: Cost of Cultivation per hectare (in Rs.) of Bitter Gourd(Summer)

Sl.No	Components	Holding Size Class			
		Small	Medium	Large	All Sizes
1	Hired human labour	68942	74325	-	71124
2	Animal labour	0	0	-	0
3	Machine labour	1943	952	-	1513
4	Seed /seedlings	11583	6436	-	9376
5	Farmyard manure and chemical fertilizers	39667	20991	-	31590
6	Plant Protection	3103	1873	-	2570
7	Land tax and irrigation cess	586	353	-	484
8	Repair and maintenance charges of implements, machinery and building	3125	428	-	1959
9	Interest on working capital	12524	10458	-	11617
10	Other expenses	48617	25178	-	38547
11	Total cost 'A'(1-10)	190089	140994	-	168782
12	Interest on fixed capital	16380	5539	-	11686
13	Cost 'B1'(11+12)	206470	146533	-	180468
14	Interest on land value	579749	698696	-	631301
15	Cost 'B'(13+14)	786218	845229	-	811768

16	Inputed value of household labour	130170	96846		115920
17	Cost 'C'(15+16)	916388	942075	-	927688

Figure 2.10.3.1 : Cost of Cultivation per hectare (in Rs.) of Bitter Gourd (Summer)

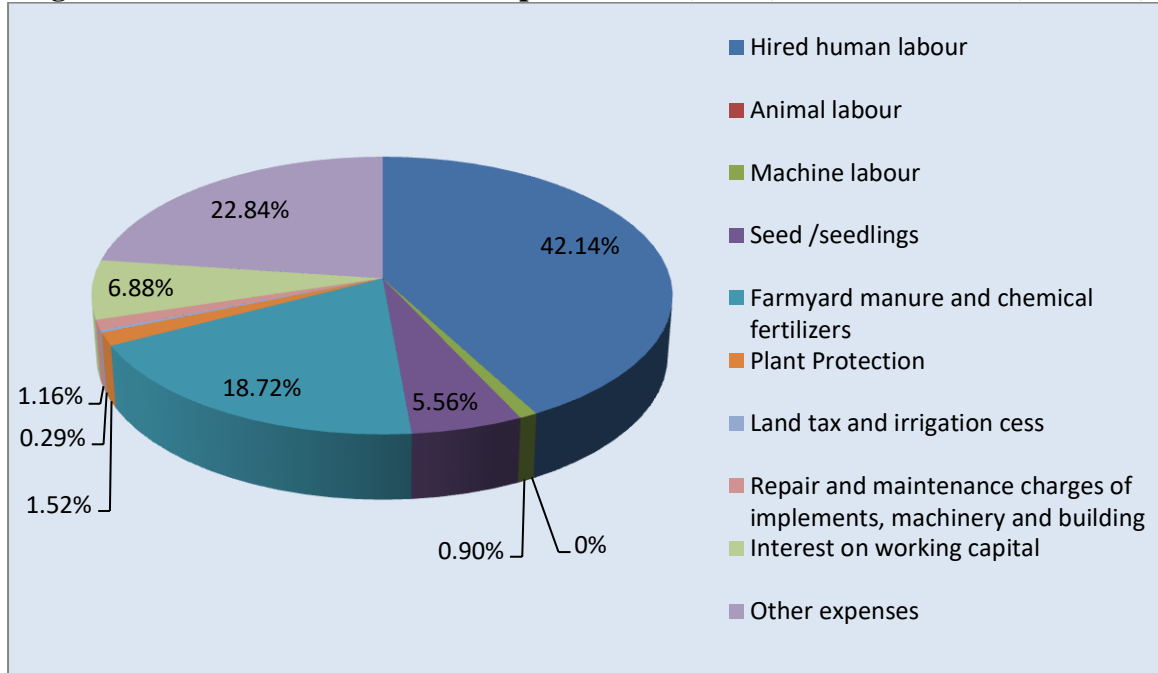


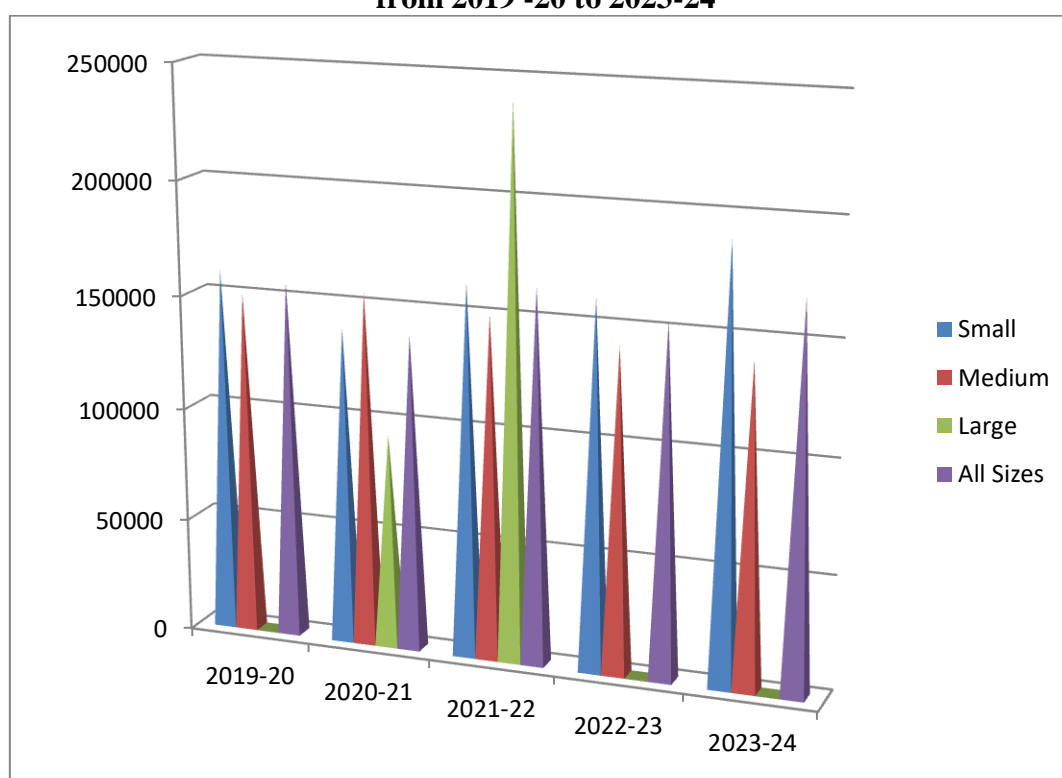
Table 2.10.3.3: Percentage of hired human labour hours to total labour hours of Bitter Gourd Summer during 2023-24

Sex	Holding Size Class			
	Small	Medium	Large	All Sizes
Male	32.19	35.89	-	33.67
Female	5.24	12.67	-	6.06
Total	37.43	48.56	-	39.73

Table 2.10.3.4: Cost of cultivation of Summer Bitter Gourd per hectare (in Rs.) from 2019 -20 to 2023-24

Holding size class	Cost A (Rs.)				
	2019-20	2020-21	2021-22	2022-23	2023-24
Small	159742	139177	163258	161419	190089
Medium	150292	155187	150440	141883	140994
Large	-	93899	240458	-	-
All Sizes	156830	138805	163858	154332	168782

Figure 2.10.3.2: Cost of cultivation of Summer Bitter Gourd per hectare (in Rs.) from 2019 -20 to 2023-24



2.10.3.3 Value of output

Details of product and by product for the year 2023-24 is given below.

Table 2.10.3.5 : Value of output during the year 2023-24

Year	Holding size class	Product/Byproduct(in Rs.)
2023-24	Small	488739
	Medium	534007
	Large	0
	All Sizes	508169

Table 2.10.3.6: Input cost, output cost and Input-output ratio of Summer Bitter Gourd per hectare (in Rs.) from 2019 -20 to 2023-24

Year	Components		
	Input Cost(Rs.)	Output Cost(Rs.)	Input-output ratio
2019-20	156830	350825	2.24
2020-21	138805	332599	2.40
2021-22	163858	363851	2.22
2022-23	154332	431623	2.80
2023-24	168782	508169	3.01

Figure 2.10.3.3: Input cost, output cost and Input-output ratio of Summer Bitter Gourd per hectare (in Rs.) from 2019 -20 to 2023-24

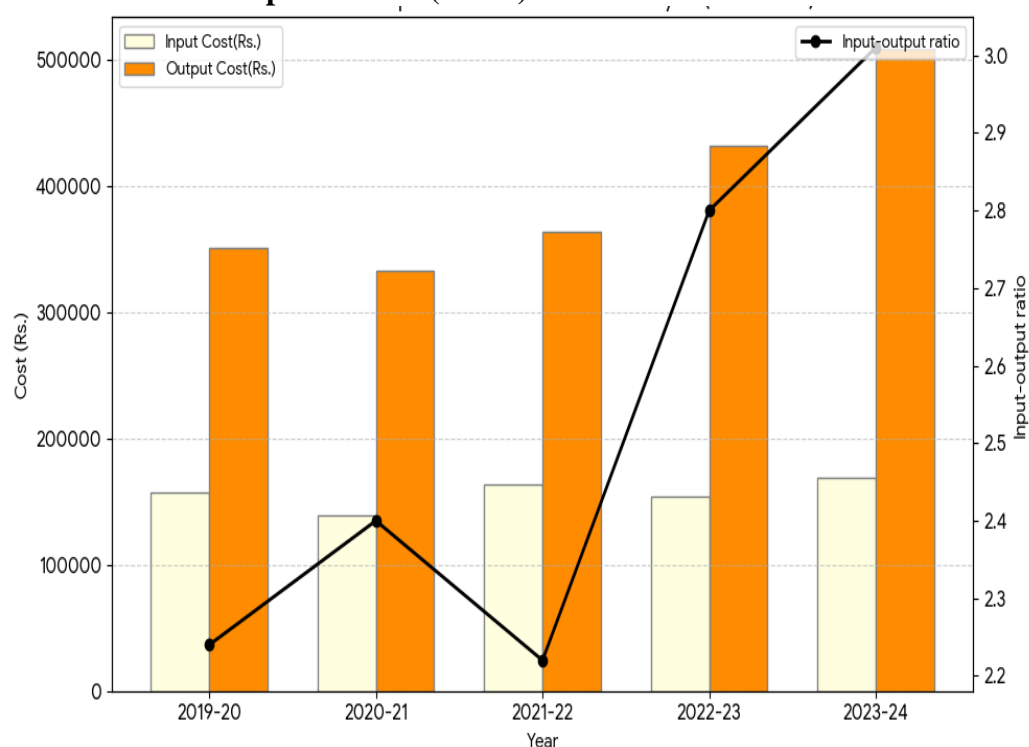
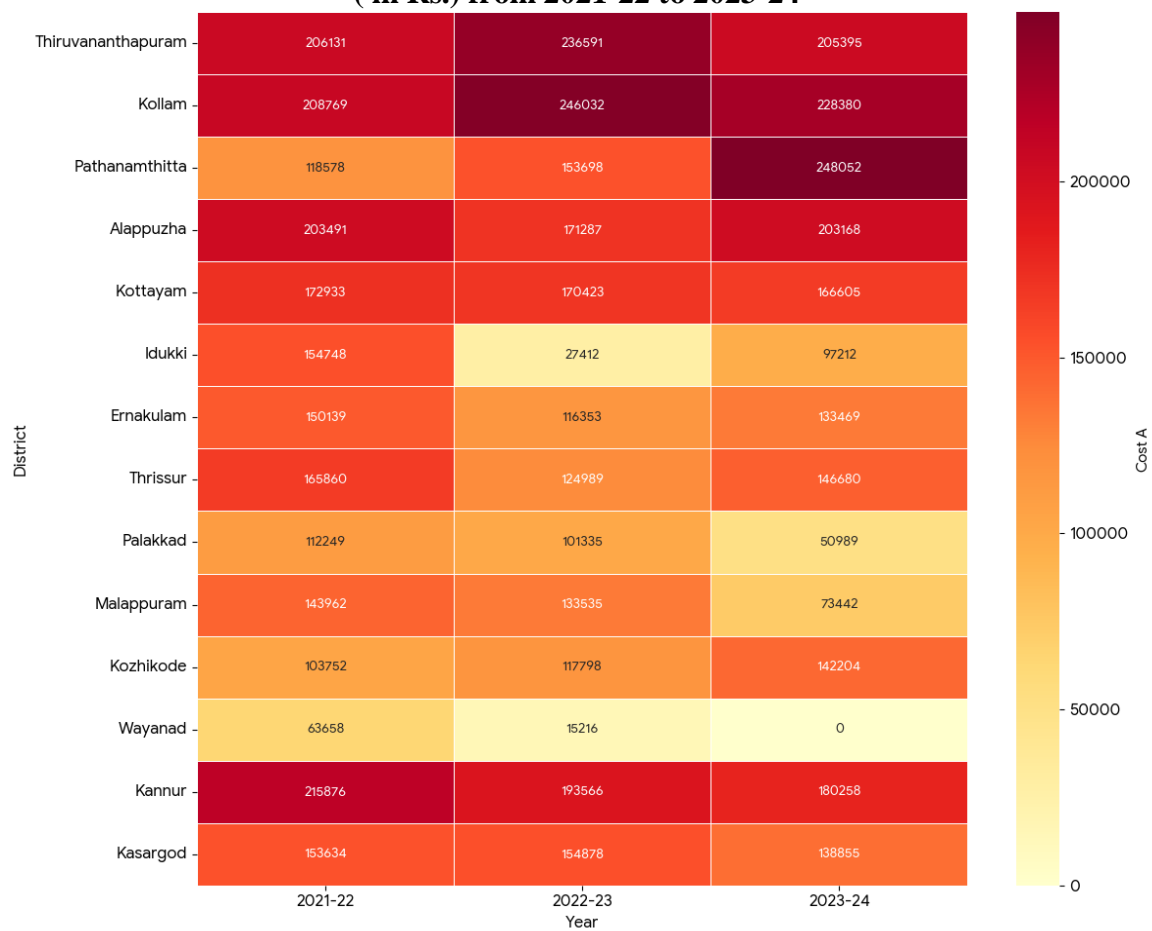


Table 2.10.3.7 : Districtwise Cost of cultivation of Summer Bitter Gourd per hectare (in Rs.) from 2021 -22 to 2023-24

District	Cost A		
	2021-22	2022-23	2023-24
Thiruvananthapuram	206131	236591	205395
Kollam	208769	246032	228380
Pathanamthitta	118578	153698	248052
Alappuzha	203491	171287	203168
Kottayam	172933	170423	166605
Idukki	154748	27412	97212
Ernakulam	150139	116353	133469
Thrissur	165860	124989	146680
Palakkad	112249	101335	50989
Malappuram	143962	133535	73442
Kozhikode	103752	117798	142204
Wayanad	63658	15216	0
Kannur	215876	193566	180258
Kasargod	153634	154878	138855

Figure 2.10.3.4: Districtwise Cost of cultivation of Summer Bitter Gourd per hectare (in Rs.) from 2021-22 to 2023-24



2.11

COWPEA

2.11.1.1 Area under Cowpea -Autumn Cultivation

Details of holding selected and area coverage for this study are given below. The study on cowpea- autumn (virippu) cultivation covers a total of 277 holdings across an area of 27.55 hectares.

Table 2.11.1.1: Number of holdings and area under Cowpea -Autumn (Virippu)

Holding size class	Sample size (No.s)	Area under the crop in the sample (ha)	Percentage Area	Average Area Per holding (ha)
Small	223	13.60	49	0.06
Medium	54	13.95	51	0.26
Large	-	-	-	-
Total	277	27.55	100	0.10

2.11.1.2 Cost of cultivation

The estimated cost of cultivation of different items per hectare of cowpea (autumn) is furnished in the below table.

Table 2.11.1.2: Cost of Cultivation per hectare (in Rs.) of Cowpea -Autumn(Virippu)

Sl.No	Components	Holding Size Class			
		Small	Medium	Large	All Sizes
1	Hired human labour	62861	70207	-	66580
2	Animal labour	0	0	-	0
3	Machine labour	970	2187	-	1586
4	Seed /seedlings	6856	7767	-	7317
5	Farmyard manure and chemical fertilizers	28991	26580	-	27771
6	Plant Protection	5514	2940	-	4211
7	Land tax and irrigation cess	346	215	-	280
8	Repair and maintenance charges of implements, machinery and building	4584	605	-	2570
9	Interest on working capital	10519	10968	-	10746
10	Other expenses	45550	36684	-	41062
11	Total cost 'A'(1-10)	166193	158154	-	162123
12	Interest on fixed capital	27478	10134	-	18698

13	Cost 'B1'(11+12)	193671	168288	-	180821
14	Interest on land value	521447	589772	-	556036
15	Cost 'B'(13+14)	715117	758060	-	736857
16	Imputed value of household labour	121227	76087	-	98375
17	Cost 'C'(15+16)	836344	834147	-	835232

Figure 2.11.1.1: Cost A per hectare of Cowpea -Autumn (Virippu) during 2023-24

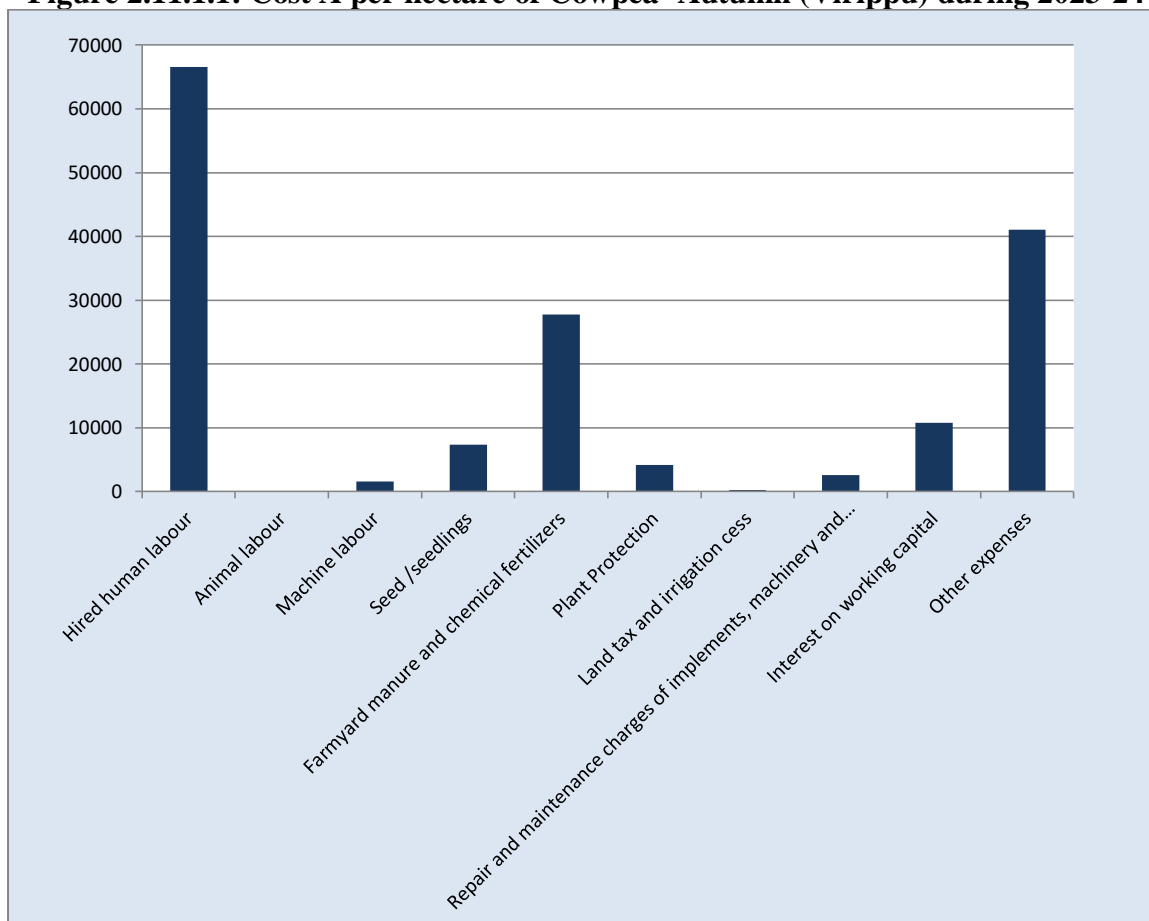


Table 2.11.1.3: Percentage of hired human labour hours to total labour hours of Cowpea -Autumn (Virippu) during 2023 - 24

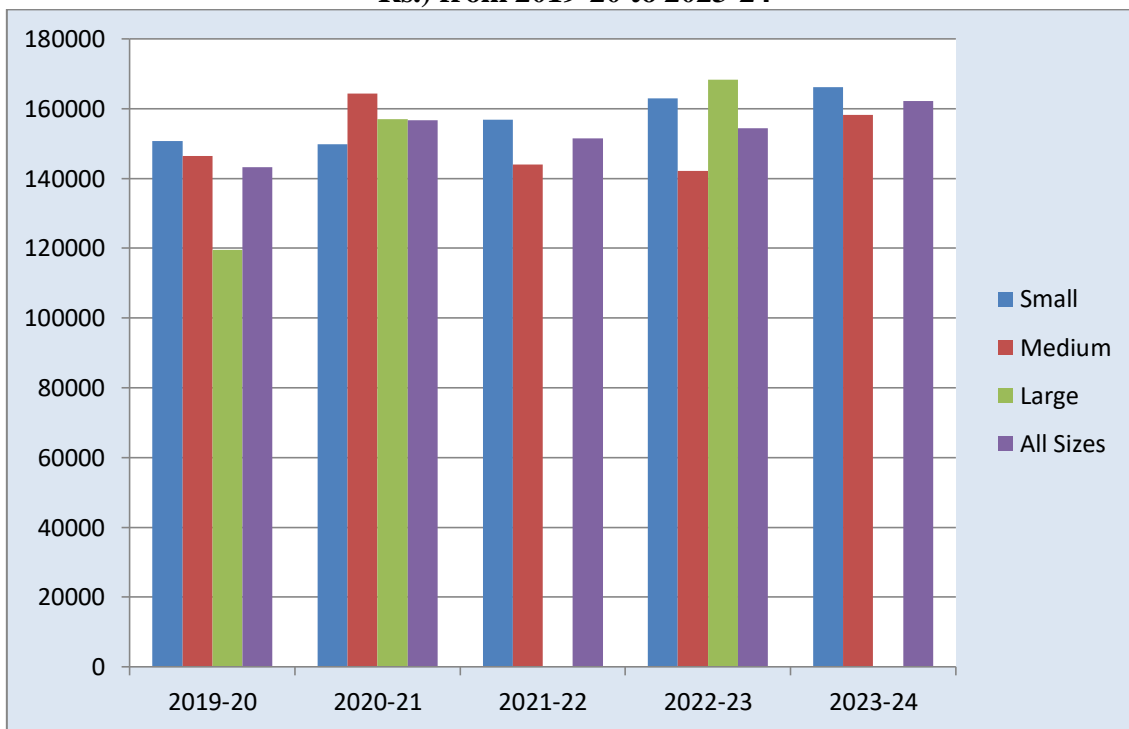
Sex	Holding Size Class			
	Small	Medium	Large	All Sizes
Male	30.39	35.15	-	32.71
Female	5.98	16.33	-	8.44
Total	36.37	51.48	-	41.15

Here the total labour is the sum of hired human labour and household human labour.

Table 2.11.1.4: Cost of cultivation of Cowpea -Autumn (Virippu) per hectare (in Rs.) from 2019 -20 to 2023-24

Holding size class	Cost A(Rs.)				
	2019-20	2020-21	2021-22	2022-23	2023-24
Small	150684	149790	156784	162967	166193
Medium	146396	164393	144062	142189	158154
Large	119580	156980	-	168264	-
All Sizes	143289	156719	151478	154339	162123

Figure 2.11.1.2: Cost of cultivation of Cowpea -Autumn (Virippu) per hectare (in Rs.) from 2019-20 to 2023-24



2.11.1.3 Value of output

Details of product and by product for the year 2023-24 are given below.

Table 2.11.1.5: Value of output during the year 2023-24

Year	Holding size class	Product/Byproduct (in Rs.)
2023 - 24	Small	448909
	Medium	415220
	Large	0
	All Sizes	431854

Table 2.11.1.6: Input cost, output cost and Input-output ratio of Cowpea -Autumn (Virippu) per hectare (in Rs.) from 2019 -20 to 2023-24

Year	Components		
	Input Cost(Rs.)	Output Cost(Rs.)	Input-output ratio
2019-20	143289	370415	2.58
2020-21	156719	352608	2.24
2021-22	151478	345676	2.28
2022-23	154339	388859	2.51
2023-24	162123	431854	2.66

Figure 2.11.1.3: Input cost, output cost and Input-output ratio of Cowpea -Autumn (Virippu) per hectare (in Rs.) from 2019 -20 to 2023-24

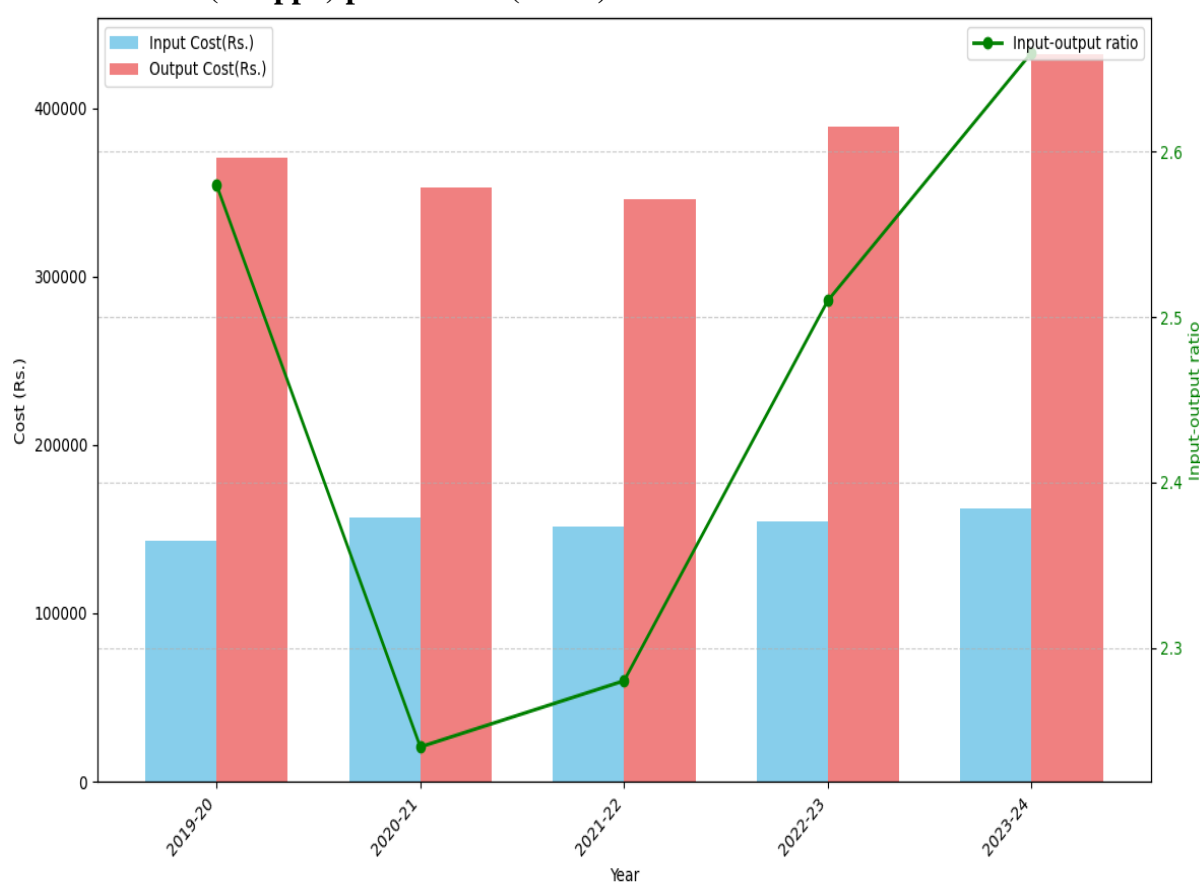


Table 2.11.1.7: Districtwise cost of cultivation (in Rs) per hectare of Cowpea - Autumn (Virippu) cultivation from 2021-22 to 2023-24

District	2021-22	2022-23	2023-24
Thiruvananthapuram	269262	217865	223412
Kollam	200360	214324	239683
Pathanamthitta	140644	114364	160228

Alappuzha	241623	226317	196156
Kottayam	175681	169634	178424
Ernakulam	151163	141649	118048
Thrissur	132131	127294	134652
Palakkad	73080	73773	95476
Malappuram	105598	84693	113279
Kozhikode	118130	103585	40385
Kannur	166279	171416	190914

Figure 2.11.1.4: Districtwise cost of cultivation (in Rs) per hectare of Cowpea - Autumn (Virippu) cultivation from 2021-22 to 2023-24



2.11.2.1 Area under Cowpea -Winter Cultivation (Mundakan)

Details of holding selected and area coverage for this study are given below. The study on Cowpea -Winter (Mundakan) cultivation covers a total of 303 holdings across an area of 30.74 hectares.

Table 2.11.2.1: Number of holdings and area under Cowpea -Winter (Mundakan)

Holding size class	Sample size (No.s)	Area under the crop in the sample (ha)	Percentage Area	Average Area Per holding (ha)
Small	244	14.53	47	0.06
Medium	58	15.4	50	0.27
Large	1	0.81	3	0.81
Total	303	30.74	100	0.10

2.11.2.2 Cost of cultivation

The estimated cost of cultivation of different items per hectare of Cowpea –Winter (Mundakan) is furnished in the below table.

Table 2.11.2.2: Cost of Cultivation per hectare (in Rs.) of Cowpea -Winter (Mundakan)

Sl. No	Components	Holding Size Class			
		Small	Medium	Large	All Sizes
1	Hired human labour	60921	71087	0	64370
2	Animal labour	0	0	0	0
3	Machine labour	1106	2685	0	1867
4	Seed /seedlings	7463	5488	13338	6628
5	Farmyard manure and chemical fertilizers	33585	23149	71630	29414
6	Plant Protection	3628	4090	617	3780
7	Land tax and irrigation cess	392	348	0	360
8	Repair and maintenance charges of implements, machinery and building	4079	881	803	2388
9	Interest on working capital	10670	10650	8559	10606
10	Other expenses	40200	27066	14820	32989
11	Total cost 'A'(1-10)	162045	145445	109767	152402
12	Interest on fixed capital	18091	18658	457	17900
13	Cost 'B1'(11+12)	180136	164102	110224	170302
14	Interest on land value	572403	544736	326040	551752
15	Cost 'B'(13+14)	752539	708838	436264	722054
16	Imputed value of household labour	131820	66568	94453	98489
17	Cost 'C'(15+16)	884359	775406	530717	820543

Figure 2.11.2.1: Percentage Distribution of Cost A per hectare of Cowpea -Winter (Mundakan) during 2023-24

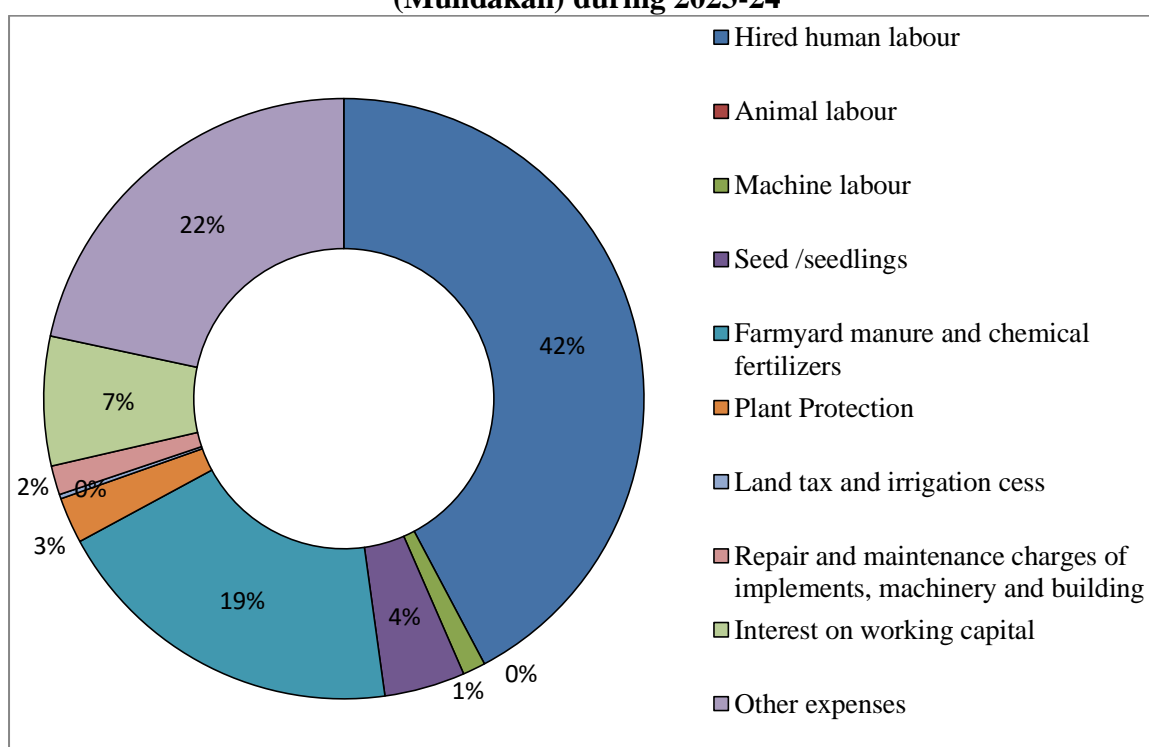


Table 2.11.2.3: Percentage of hired human labour hours to total labour hours of Cowpea -Winter (Mundakan) during 2023 - 24

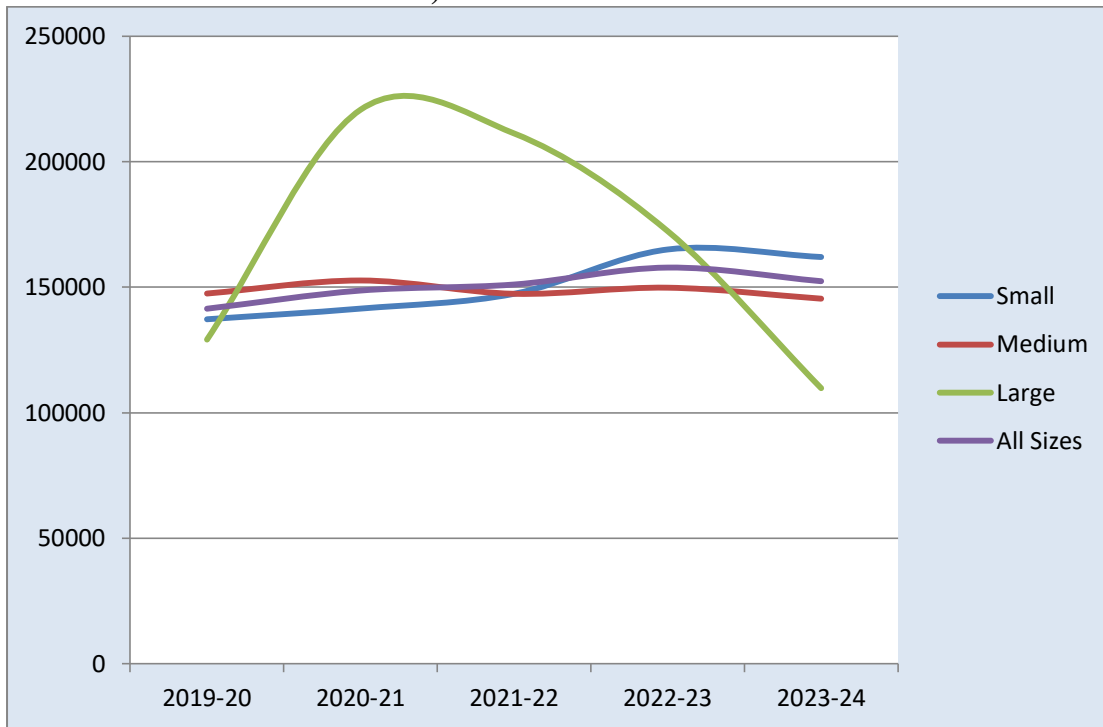
Sex	Holding Size Class			
	Small	Medium	Large	All Sizes
Male	29.38	28.23	-	28.48
Female	5.24	20.20	-	11.04
Total	34.62	48.43	-	39.52

Here the total labour is the sum of hired human labour and household human labour.

Table 2.11.2.4: Cost of cultivation of Cowpea -Winter (Mundakan) per hectare (in Rs.) from 2019 -20 to 2023-24

Holding size class	Cost A(Rs.)				
	2019-20	2020-21	2021-22	2022-23	2023-24
Small	137230	141489	147387	165044	162045
Medium	147492	152686	147390	149817	145445
Large	129133	220735	211292	172375	109767
All Sizes	141440	148688	151090	157832	152402

Figure 2.11.2.2: Cost of cultivation of Cowpea -Winter (Mundakan) per hectare (in Rs.) from 2019-20 to 2023-24



2.11.2.3 Value of output

Details of product and by product for the year 2023-24 are given below.

Table 2.11.2.5: Value of output during the year 2023-24

Year	Holding size class	Product/Byproduct (in Rs.)
2023 - 24	Small	452578
	Medium	403235
	Large	652697
	All Sizes	433545

Table 2.11.2.6: Input cost, output cost and Input-output ratio of Cowpea -Winter (Mundakan) per hectare (in Rs.) from 2019 -20 to 2023-24

Year	Components		
	Input Cost(Rs.)	Output Cost(Rs.)	Input-output ratio
2019-20	141440	331754	2.35
2020-21	148688	375048	2.52
2021-22	151090	361985	2.40
2022-23	157832	401508	2.54
2023-24	152402	433545	2.84

Figure 2.11.2.3: Input cost, output cost and Input-output ratio of Cowpea -Winter (Mundakan) per hectare (in Rs.) from 2019 -20 to 2023-24

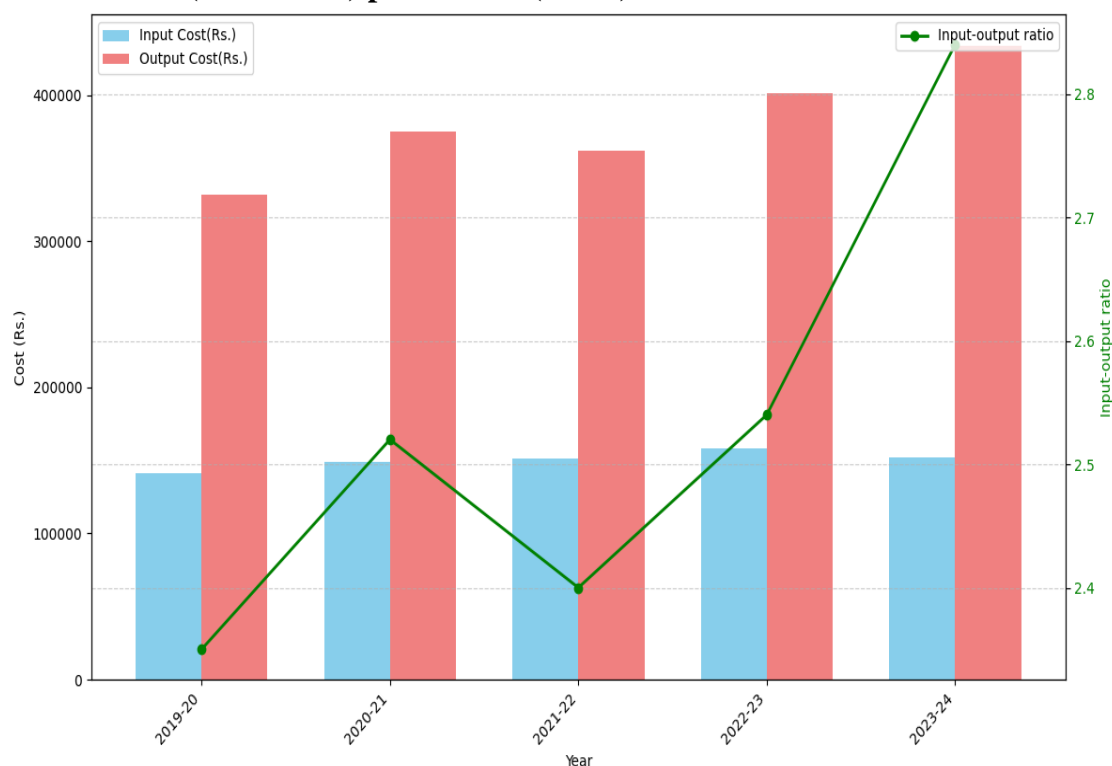


Table 2.11.2.7: Districtwise cost of cultivation (in Rs) per hectare of Cowpea -Winter (Mundakan) cultivation from 2021-22 to 2023-24

District	2021-22	2022-23	2023-24
Thiruvananthapuram	212974	286806	180337
Kollam	191278	252339	270395
Pathanamthitta	210346	116543	112714
Alappuzha	208762	228573	216751
Kottayam	182999	181492	200129
Idukki	124946	90324	119798
Ernakulam	144655	200258	92146
Thrissur	118223	116662	141738
Palakkad	69923	71918	110971
Malappuram	126973	96501	108327
Kozhikode	95831	109631	111695
Wayanad	104236	106619	164537
Kannur	190283	171059	152552
Kasargod	130446	121861	136885

Figure 2.11.2.4: Districtwise cost of cultivation (in Rs) per hectare of Cowpea - Winter (Mundakan) cultivation from 2021-22 to 2023-24



2.11.3.1 Area under Cowpea –Summer Cultivation (Puncha)

Details of holding selected and area coverage for this study are given below. The study on Cowpea -Summer (Puncha) covers a total of 300 holdings across an area of 26.22 hectares.

Table 2.11.3.1: Number of holdings and area under Cowpea –Summer (Puncha)

Holding size class	Sample size (No.s)	Area under the crop in the sample (ha)	Percentage Area	Average Area Per holding (ha)
Small	260	14.38	55	0.06
Medium	39	11.03	42	0.28
Large	1	0.81	3	0.81
Total	300	26.22	100	0.09

2.11.3.2 Cost of cultivation

The estimated cost of cultivation of different items per hectare of Cowpea –Summer (Puncha) is furnished in the below table.

Table 2.11.3.2: Cost of Cultivation per hectare (in Rs.) of Cowpea –Summer (Puncha)

Sl.No	Components	Holding Size Class			
		Small	Medium	Large	All Sizes
1	Hired human labour	58930	63360	21304	59632
2	Animal labour	0	0	0	0
3	Machine labour	1088	816	0	940
4	Seed /seedlings	8055	7553	5557	7767
5	Farmyard manure and chemical fertilizers	32300	24861	2470	28249
6	Plant Protection	3076	2485	0	2733
7	Land tax and irrigation cess	426	152	0	298
8	Repair and maintenance charges of implements, machinery and building	2030	565	0	1351
9	Interest on working capital	10345	9907	2933	9932
10	Other expenses	31667	20266	0	25892
11	Total cost 'A'(1-10)	147918	129965	32264	136793
12	Interest on fixed capital	18505	2404	321	11171
13	Cost 'B1'(11+12)	166423	132369	32585	147964
14	Interest on land value	490750	624797	403920	544465
15	Cost 'B'(13+14)	657173	757166	436505	692429
16	Inputed value of household labour	135093	63163	0	100659
17	Cost 'C'(15+16))	792267	820329	436505	793089

Figure 2.11.3.1: Percentage Distribution of Cost A per hectare of Cowpea –Summer (Puncha) during 2023-24

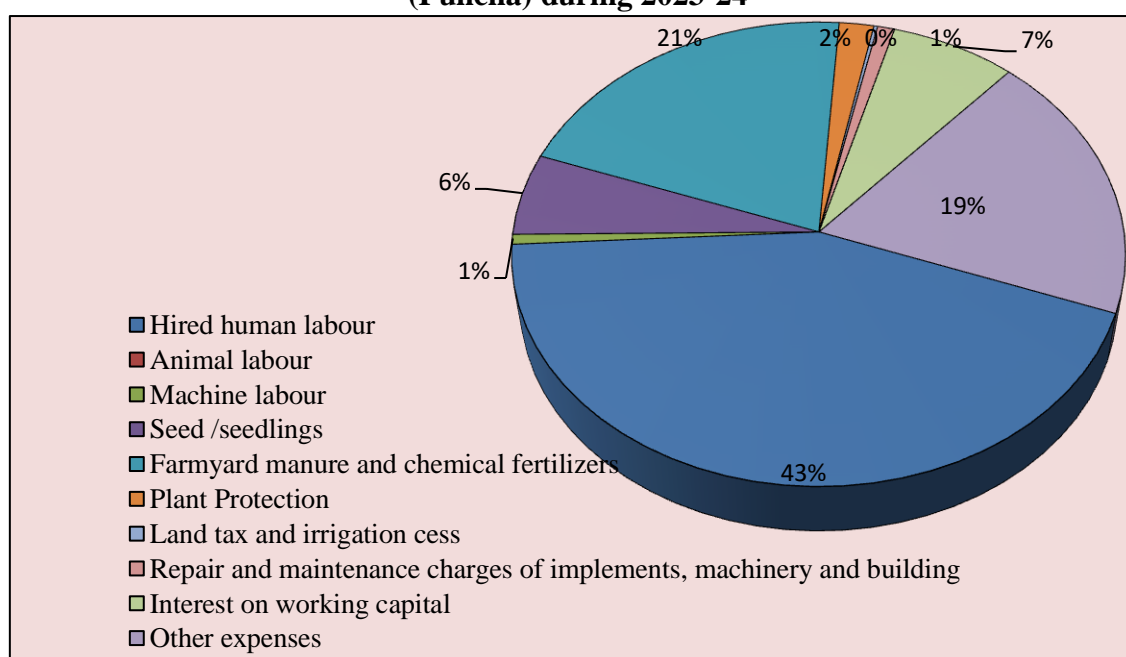


Table 2.11.3.3: Percentage of hired human labour hours to total labour hours of Cowpea –Summer (Puncha) during 2023-24

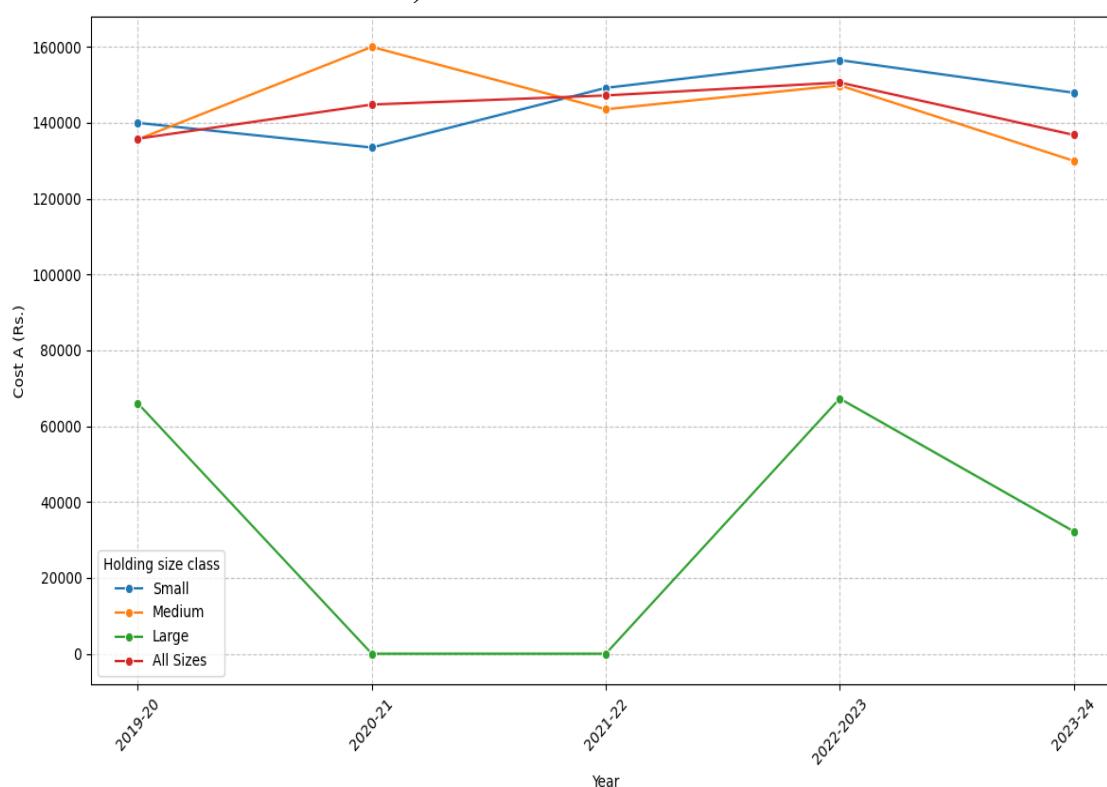
Sex	Holding Size Class			
	Small	Medium	Large	All Sizes
Male	3.70	43.74	60.18	6.47
Female	0.43	13.85	50.00	1.05
Total	4.13	57.59	110.18	7.52

Here the total labour is the sum of hired human labour and household human labour.

Table 2.11.3.4: Cost of cultivation of Cowpea –Summer (Puncha) per hectare (in Rs.) from 2019 -20 to 2023-24

Holding size class	Cost A(Rs.)				
	2019-20	2020-21	2021-22	2022-23	2023-24
Small	139977	133469	149191	156526	147918
Medium	135620	160003	143559	149857	129965
Large	66003	-	-	67279	32264
All Sizes	135798	144802	147202	150616	136793

Figure 2.11.3.2: Cost of cultivation of Cowpea –Summer (Puncha) per hectare (in Rs.) from 2019-20 to 2023-24



2.11.3.3 Value of output

Details of product and by product for the year 2023-24 are given below.

Table 2.11.3.5: Value of output during the year 2023-24

Year	Holding size class	Product/Byproduct (in Rs.)
2023 - 24	Small	443392
	Medium	320783
	Large	205504
	All Sizes	384463

Table 2.11.3.6: Input cost, output cost and Input-output ratio of Cowpea –Summer (Puncha) per hectare (in Rs.) from 2019 -20 to 2023-24

Year	Components		
	Input Cost(Rs.)	Output Cost(Rs.)	Input-output ratio
2019-20	135798	296293	2.18
2020-21	144802	326175	2.25
2021-22	147202	348685	2.37
2022-23	150616	386758	2.57
2023-24	136793	384463	2.81

Figure 2.11.3.3: Input cost, output cost and Input-output ratio of of Cowpea – Summer (Puncha) per hectare (in Rs.) from 2019 -20 to 2023-24

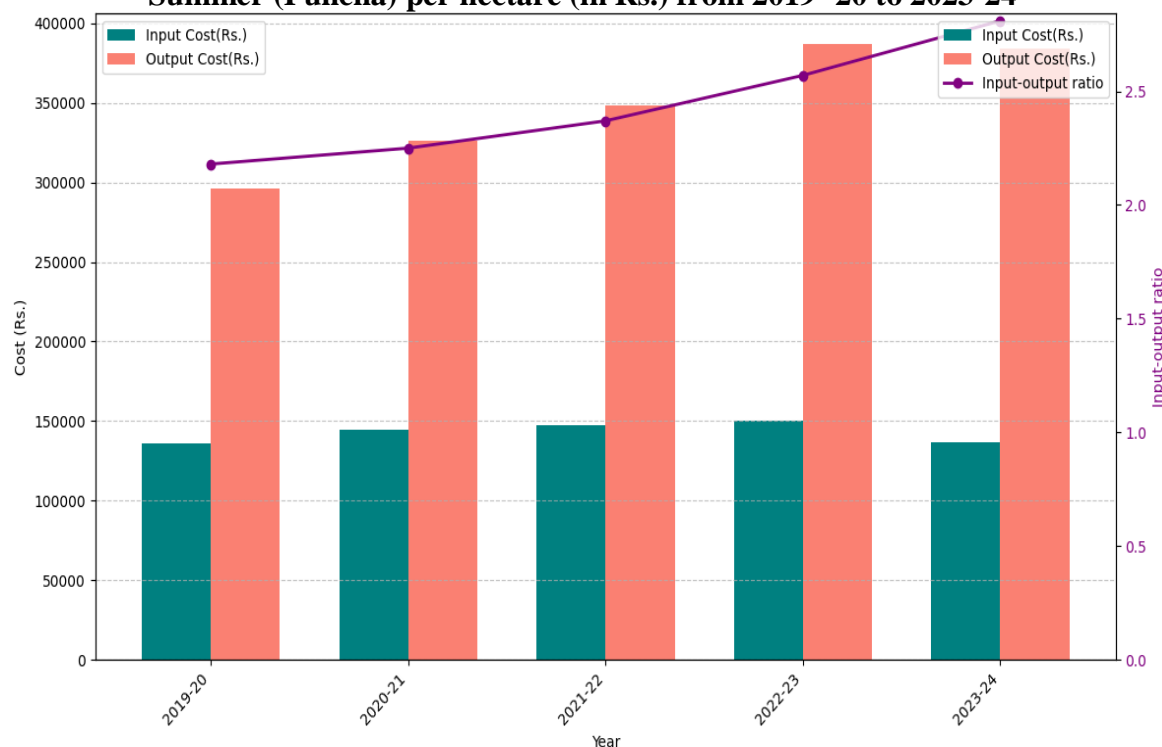
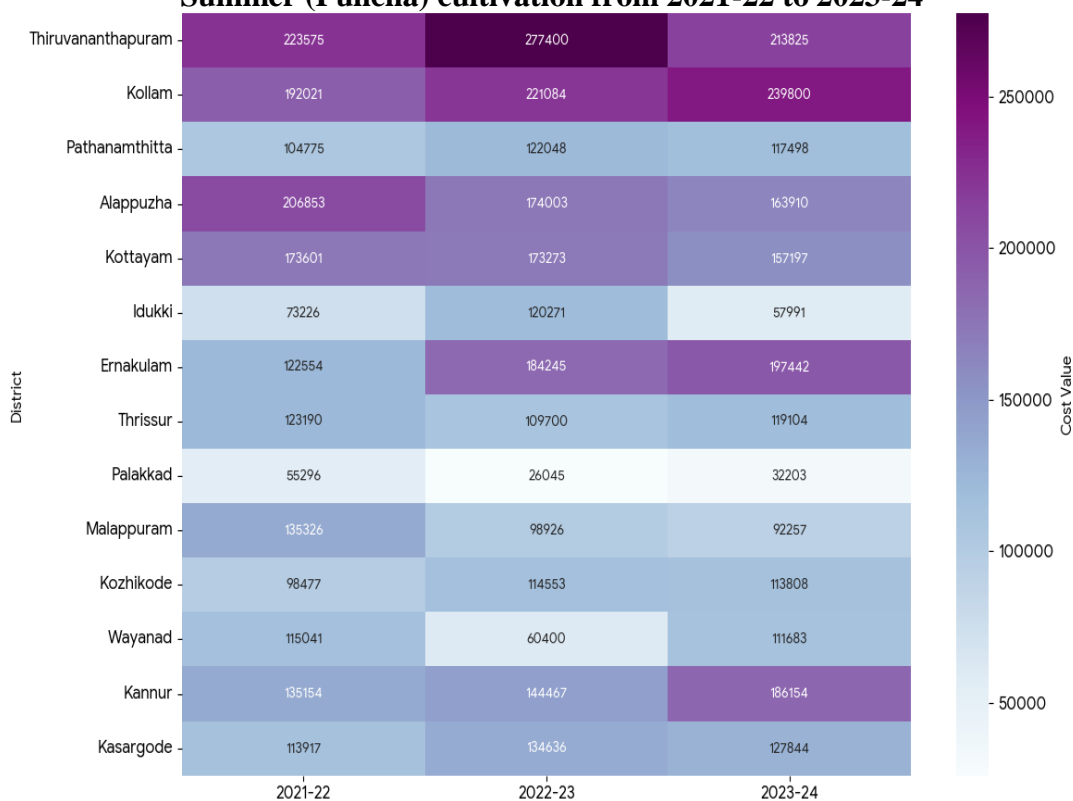


Table 2.11.3.7: Districtwise cost of cultivation (in Rs) per hectare of Cowpea – Summer (Puncha) cultivation from 2021-22 to 2023-24

District	2021-22	2022-23	2023-24
Thiruvananthapuram	223575	277400	213825
Kollam	192021	221084	239800
Pathanamthitta	104775	122048	117498
Alappuzha	206853	174003	163910
Kottayam	173601	173273	157197
Idukki	73226	120271	57991
Ernakulam	122554	184245	197442
Thrissur	123190	109700	119104
Palakkad	55296	26045	32203
Malappuram	135326	98926	92257
Kozhikode	98477	114553	113808
Wayanad	115041	60400	111683
Kannur	135154	144467	186154
Kasargod	113917	134636	127844

Figure 2.11.3.4: Districtwise cost of cultivation (in Rs) per hectare of Cowpea – Summer (Puncha) cultivation from 2021-22 to 2023-24



2.12

CARDAMOM

2.12.1 Area under Cardamom cultivation during 2023-24

The data collected from 32 holdings under cardamom cultivation covers a total area of 23.08 hectares.

Table 2.12.1: Number of holdings and area under Cardamom

Holding Size class	Sample size (No.s)	Area under the crop in the sample(ha)	Percentage Area	Average Area Per holding(ha)
Small	3	0.36	2	0.12
Medium	18	7.44	32	0.41
Large	11	15.28	66	1.39
Total	32	23.08	100	0.72

2.12.2 Cost of cultivation

The estimated cost of cultivation of different items per hectare of cardamom is furnished in the below table.

Table 2.12.2: Cost of Cultivation per hectare (inRs.) of Cardamom during 2023-24

Sl.No	Components	Holding Size Class			
		Small	Medium	Large	All Sizes
1	Hired human labour	37709	115338	129976	123807
2	Animal labour	0	0	0	0
3	Machine labour	0	0	0	0
4	Seed/seedlings	0	0	0	0
5	Farmyard manure and chemical fertilizers	40931	64147	32539	42847
6	Plant Protection	8425	9873	13171	12035
7	Land tax and irrigation cess	1133	1092	1401	1297
8	Repair and maintenance charges of implements, machinery and building	0	1911	284	803
9	Interest on working capital	8706	18936	17569	17869
10	Other expenses	24947	79340	46142	56495
11	Total cost'A'(1-10)	121852	290637	241082	255152
12	Interest on fixed capital	3211	9015	2233	4431
13	Cost'B1'(11+12)	125063	299652	243314	259583
14	Interest on land value	332907	243488	185717	206639
15	Cost'B'(13+14)	457970	543140	429031	466222
16	Imputed value of household labour	118491	67447	14382	33109
17	Cost'C'(15+16))	576461	610587	443413	499331

Figure 2.12.1: Cost of Cultivation per hectare (in Rs.) of Cardamom

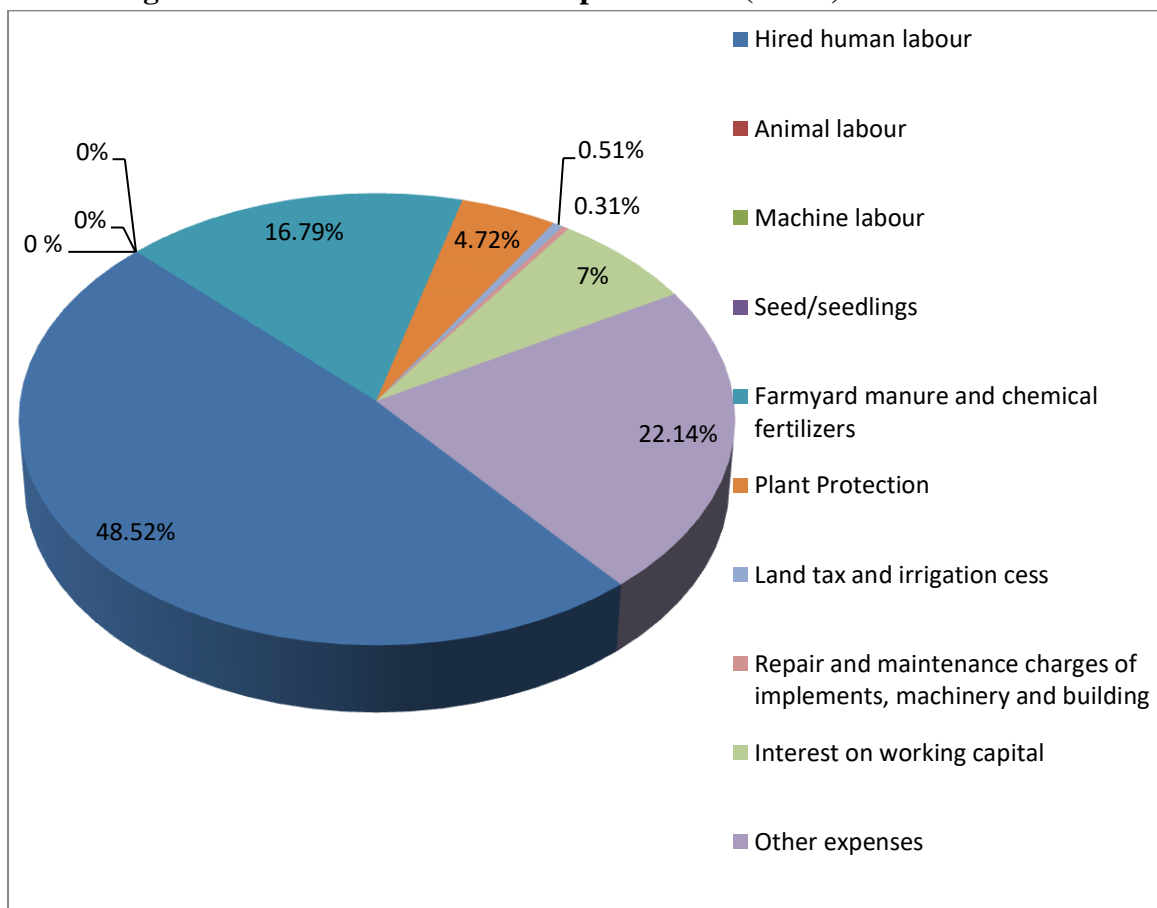


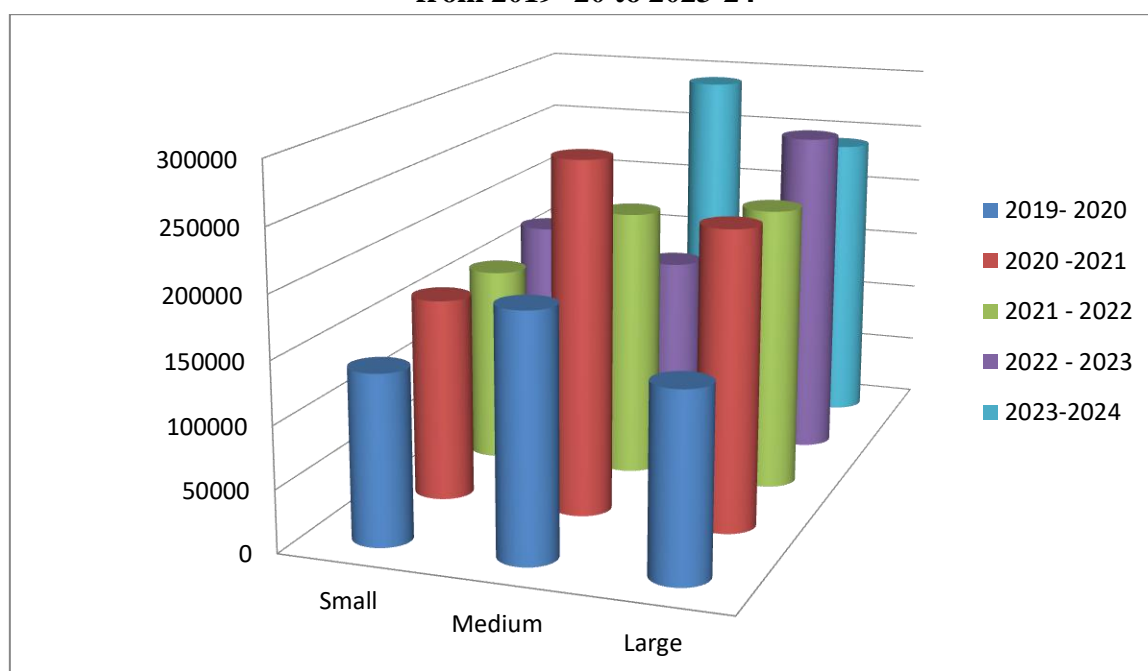
Table 2.12.3: Percentage of hired human labour hours to total labour hours of Cardamom during 2023 - 24

Sex	Holding Size Class			
	Small	Medium	Large	All Sizes
Male	9.34	16.95	15.41	15.84
Female	14.11	35.59	47.8	66.1
Total	23.45	52.54	63.21	81.94

Table 2.12.4: Cost of cultivation of Cardamom per hectare (in Rs.) from 2019 -20 to 2023-24

Holding size class	Cost A(Rs.)				
	2019- 20	2020- 21	2021- 22	2022- 23	2023 - 24
Small	136468	163658	159945	173201	121852
Medium	195152	283525	217912	150511	290637
Large	148475	238931	229067	267055	241082
All Sizes	160436	247734	223807	234664	255152

Figure 2.12.2: Cost of cultivation of Cardamom per hectare (in Rs.) from 2019 -20 to 2023-24



2.12.3 Value of output

Details of product and by product for the year 2023-24 is given below.

Table 2.12.5: Value of output during the year 2023-24

Year	Holding size class	Product/Byproduct (in Rs.)	
		Product	Total
2023 - 24	Small	439523	439523
	Medium	516351	516351
	Large	629245	629245
	All Sizes	589905	589905

Table 2.12.6: Input cost, output cost and Input-output ratio of Cardamom per hectare (in Rs.) from 2019 -20 to 2023-24

Year	Components		
	Input Cost(Rs.)	Output Cost(Rs.)	Input-output ratio
2019-20	160436	460312	2.87
2020-21	247734	547428	2.21
2021-22	223807	357523	1.60
2022-23	234664	433204	1.85
2023-24	255152	589905	2.32

From the data collected it is evident that the input- output ratio has some variations over the years and the efficiency is higher during the year 2019-20

Figure 2.12.3: Input cost, output cost and Input-output ratio of Cardamom per hectare (in Rs.) from 2019 -20 to 2023-24

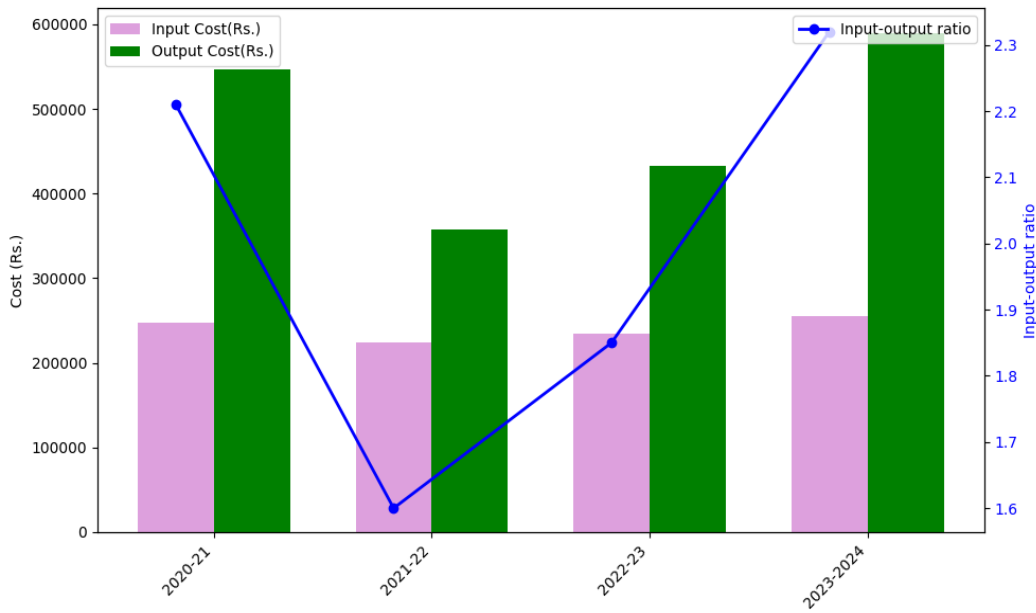
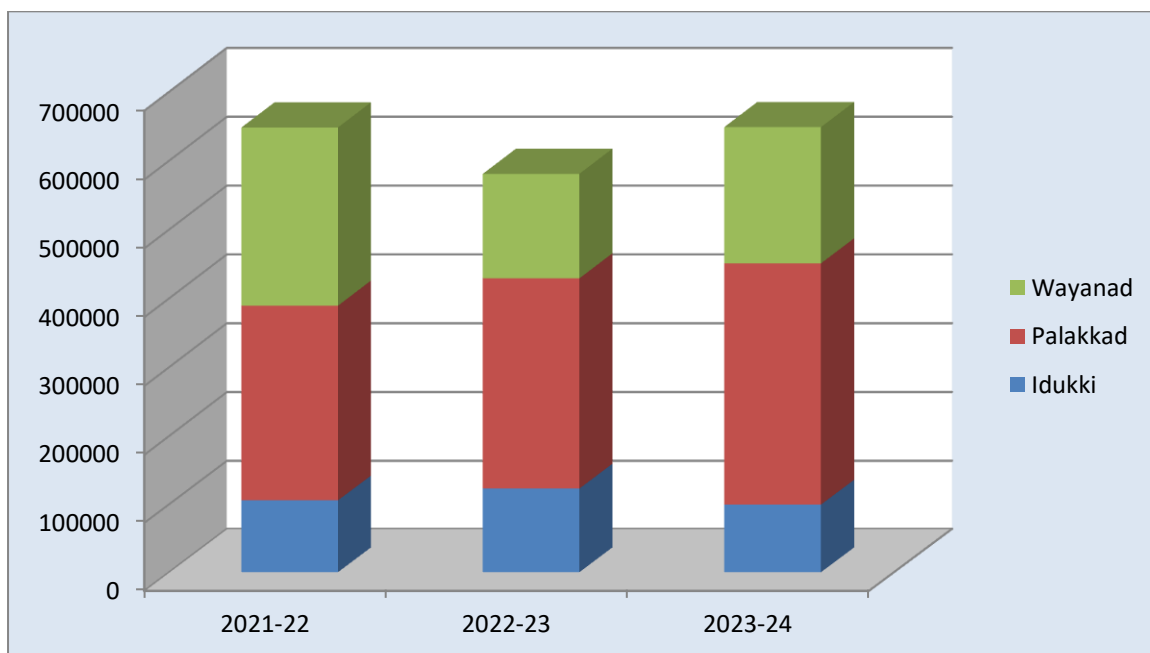


Table 2.12.7: District wise Cost of Cultivation (In Rs.) Per Hectare of Cardamom Fom 2021-22 to 2023-24

DISTRICT	COST A		
	2021-22	2022-23	2023-24
Idukki	105702	123077	99540
Palakkad	283613	305931	351305
Wayanad	258978	151900	197975

Figure 2.12.4: District wise Cost of Cultivation (In Rs.) Per Hectare of Cardamom From 2021-22 to 2023-24



2.13.1 Ash gourd-Autumn (Virippu)

2.13.1.1 Area under Ash gourd-Autumn Cultivation

Details of holding selected and area coverage for this study are given below. The data collected from 102 holdings according to the size class by covering 13.13 hectares of land.

Table 2.13.1.1: Number of holdings and area under Ash gourd-Autumn (Virippu)

Holding size class	Sample size (No.s)	Area under the crop in the sample(ha)	Percentage Area	Average Area Per holding(ha)
Small	74	3.76	29	0.05
Medium	26	7.35	56	0.28
Large	2	2.02	15	1.01
Total	102	13.13	100	0.13

2.13.1.2 Cost of cultivation

The estimated cost of cultivation of different items per hectare of Ash gourd (Autumn) is furnished in the below table.

Table 2.13.1.2: Cost of Cultivation per hectare (in Rs.) of Ash gourd-Autumn (Virippu)

Sl.No	Components	Holding Size Class			
		Small	Medium	Large	All Sizes
1	Hired human labour	30789	35951	80043	41269
2	Animal labour	0	0	0	0
3	Machine labour	1196	1837	0	1371
4	Seed /seedlings	6590	3443	1818	4094
5	Farmyard manure and chemical fertilizers	19033	15537	20002	17226
6	Plant Protection	1560	1825	1927	1765
7	Land tax and irrigation cess	366	183	0	207
8	Repair and maintenance charges of implements, machinery and building	2308	73	30	706
9	Interest on working capital	5917	5859	10379	6572
10	Other expenses	19000	15498	13684	16221
11	Total cost 'A'(1-10)	86759	80206	127882	89431
12	Interest on fixed capital	4463	711	74	1688

13	Cost 'B1'(11+12)	91221	80918	127955	91119
14	Interest on land value	698506	519583	559683	577002
15	Cost 'B'(13+14)	789727	600500	687638	668121
16	Imputed value of household labour	57548	27403	7884	33027
17	Cost 'C'(15+16)	847275	627903	695522	701148

Figure 2.13.1.1: Cost of Cultivation per hectare (in Rs.) of Ashgourd-Autumn (Virippu)

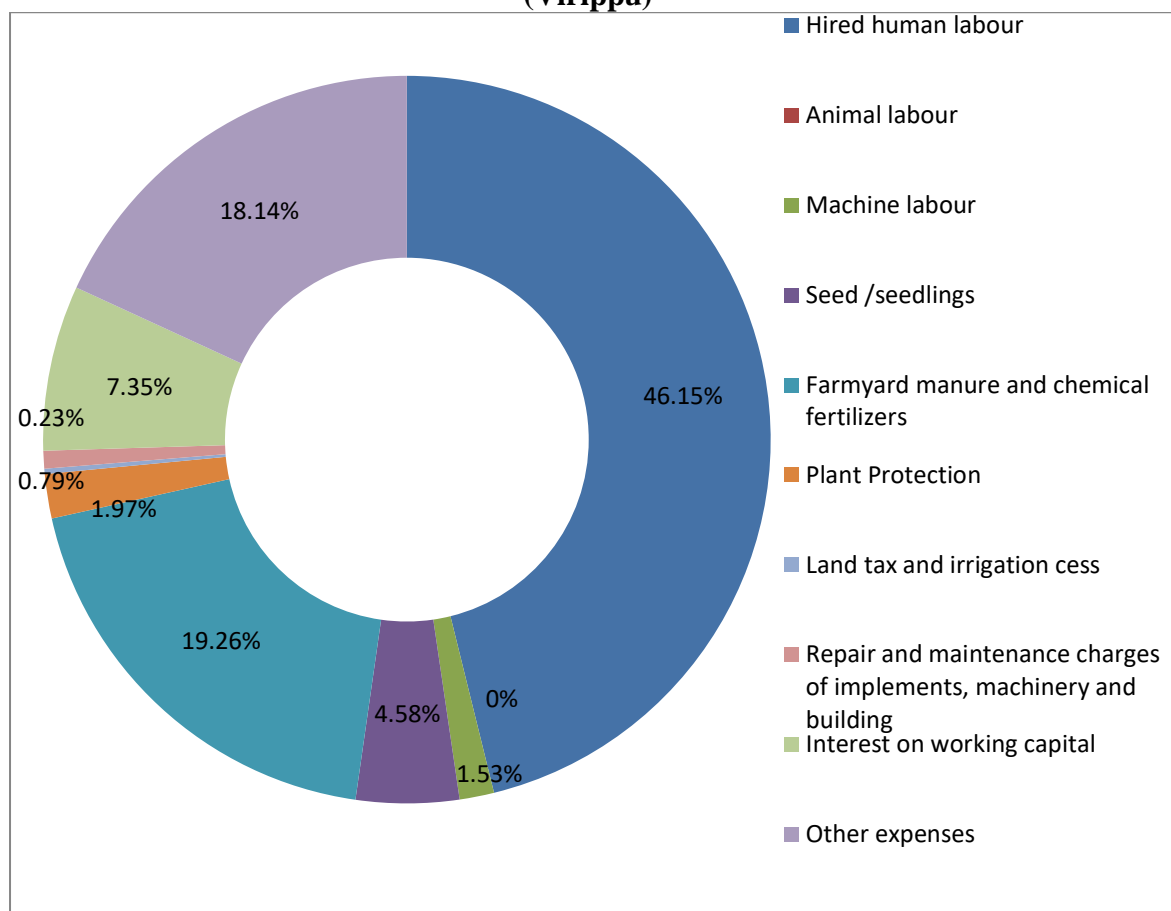


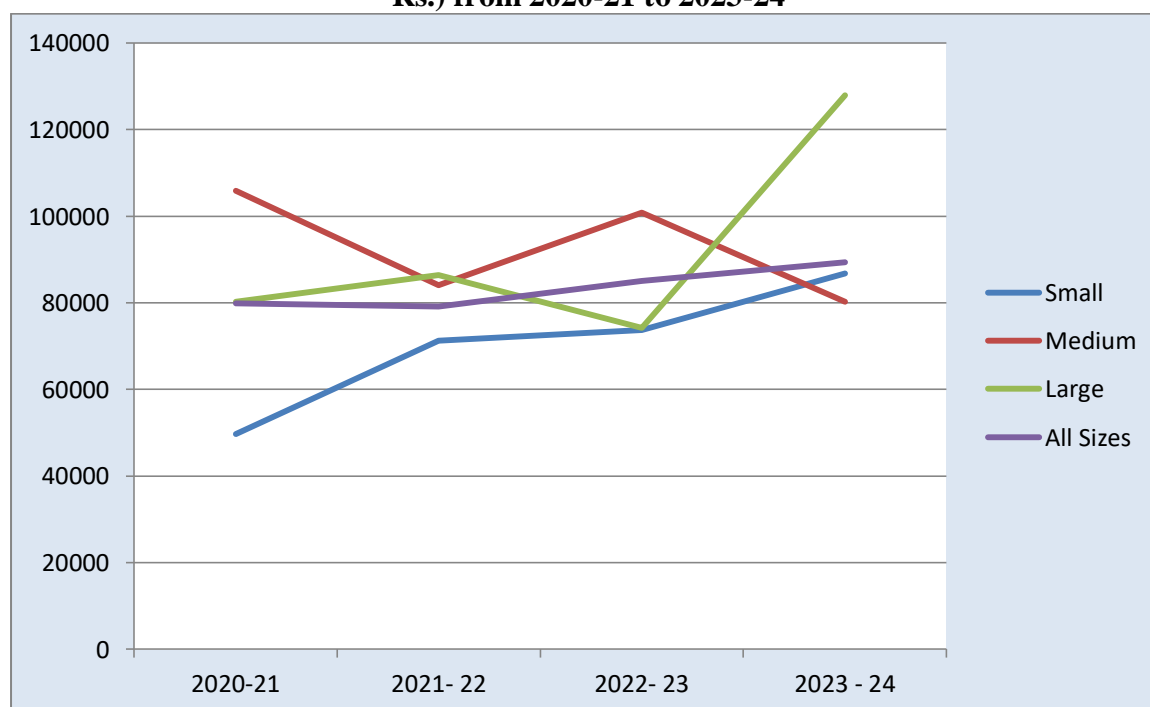
Table 2.13.1.3: Percentage of hired human labour hours to total labour hours of Ashgourd-Autumn (Virippu) during 2023 - 24

Sex	Holding Size Class			
	Small	Medium	Large	All Sizes
Male	26.72	40.44	76.61	42.33
Female	13.92	21.18	38.76	14.42
Total	40.64	61.62	115.37	56.75

Table 2.13.1.4: Cost of cultivation of Ash gourd-Autumn (Virippu)per hectare (in Rs.) from 2020 -21 to 2023-24

Holding size class	Cost A(Rs.)			
	2020-21	2021- 22	2022- 23	2023 - 24
Small	49714	71236	73668	86759
Medium	105917	84017	100864	80206
Large	80244	86396	74185	127882
All Sizes	79887	79141	85115	89431

Figure 2.13.1.2: Cost of cultivation of Ash gourd-Autumn (Virippu) per hectare (in Rs.) from 2020-21 to 2023-24



2.13.1.3 Value of output

Details of product and byproduct for the year 2023-24 is given below.

Table 2.13.1.5: Value of output during the year 2023-24

Year	Holding size class	Product/Byproduct (in Rs.)	
		Product	Total
2023 - 24	Small	293906	293906
	Medium	211862	211862
	Large	196202	196202
	All Sizes	232944	232944

Table 2.13.1.6: Input cost, output cost and Input-output ratio of Ash gourd-Autumn (Virippu) per hectare (in Rs.) from 2020 -21 to 2023-24

Year	Components		
	Input Cost(Rs.)	Output Cost(Rs.)	Input-output ratio
2020-21	79887	186046	2.33
2021-22	79141	187464	2.37
2022-23	85115	207445	2.44
2023 - 24	89431	232944	2.61

From the data collected it is evident that the input- output increases over the years and the efficiency is higher during the year 2023-24.

Figure 2.13.1.3: Input cost, output cost and Input-output ratio of Ash gourd-Autumn (Virippu) per hectare (in Rs.) from 2020 -21 to 2023-24

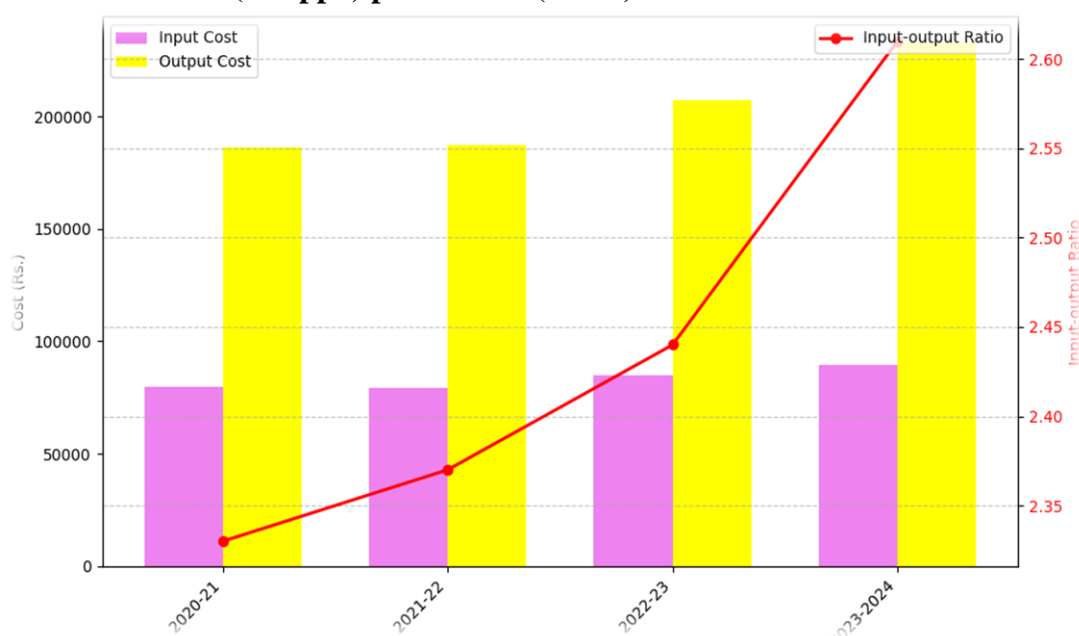


Table 2.13.1.7: District wise Cost of Cultivation (In Rs.) Per Hectare of Ash gourd – Autumn From 2021-22 to 2023-24

DISTRICTS	COST A		
	2021-22	2022-23	2023-24
Kollam	161089	256593	108414
Pathanamthitta	75788	134716	135465
Alappuzha	42978	108007	123648
Kottayam	73732	70220	70483
Ernakulam	0	89904	83615
Thrissur	64164	70741	112350
Palakkad	73409	60936	64483

Malappuram	78145	77448	79398
Kozhikode	90738	0	50423
Kannur	129818	131740	102683

Figure 2.13.1.4: District wise Cost of Cultivation (In Rs.) Per Hectare of Ash gourd – Autumn From 2021-22 to 2023-24



2.13.2. Ash gourd-Winter (Mundakan)

2.13.2.1 Area under Ash gourd-Winter (Mundakan) Cultivation

Details of holding selected and area coverage for this study are given below. The data collected from 105 holdings according to the size class by covering 8.74 hectares of land.

Table 2.13.2.1: Number of holdings and area under Ash gourd-Winter (Mundakan)

Holding size class	Sample size (no.s)	Area under the crop in the sample(ha)	Percentage Area	Average Area Per holding(ha)
Small	92	5.06	58	0.06
Medium	13	3.68	42	0.28
Large	-	-	-	-
Total	105	8.74	100	0.08

2.13.2.2 Cost of cultivation

The estimated cost of cultivation of different items per hectare of Ash gourd (winter) is furnished in the below table.

Table 2.13.2.2: Cost of Cultivation per hectare (in Rs.) of Ash gourd-Winter (Mundakan)

Sl.No	Components	Holding Size Class			
		Small	Medium	Large	All Sizes
1	Hired human labour	25517	53044	-	37114
2	Animal labour	0	0	-	0
3	Machine labour	3616	4696	-	4071
4	Seed/seedlings	7216	3805	-	5779
5	Farmyard manure and chemical fertilizers	24656	20247	-	22799
6	Plant Protection	1952	1733	-	1860
7	Land tax and irrigation cess	279	417	-	337
8	Repair and maintenance charges of implements, machinery and building	749	722	-	738
9	Interest on working capital	6296	8353	-	7162
10	Other expenses	18809	12361	-	16092
11	Total cost'A'(1-10)	89091	105378	-	95953
12	Interest on fixed capital	25983	26200	-	26089
13	Cost'B1'(11+12)	115074	131578	-	122042
14	Interest on land value	719716	466343	-	612971
15	Cost'B'(13+14)	834790	597921	-	735012
16	Inputed value of household labour	84532	27716	-	60596
17	Cost'C'(15+16)	919322	625636	-	795608

Figure 2.13.2.1: Cost of Cultivation per hectare (in Rs.) of Ashgourd- Winter (Mundakan)

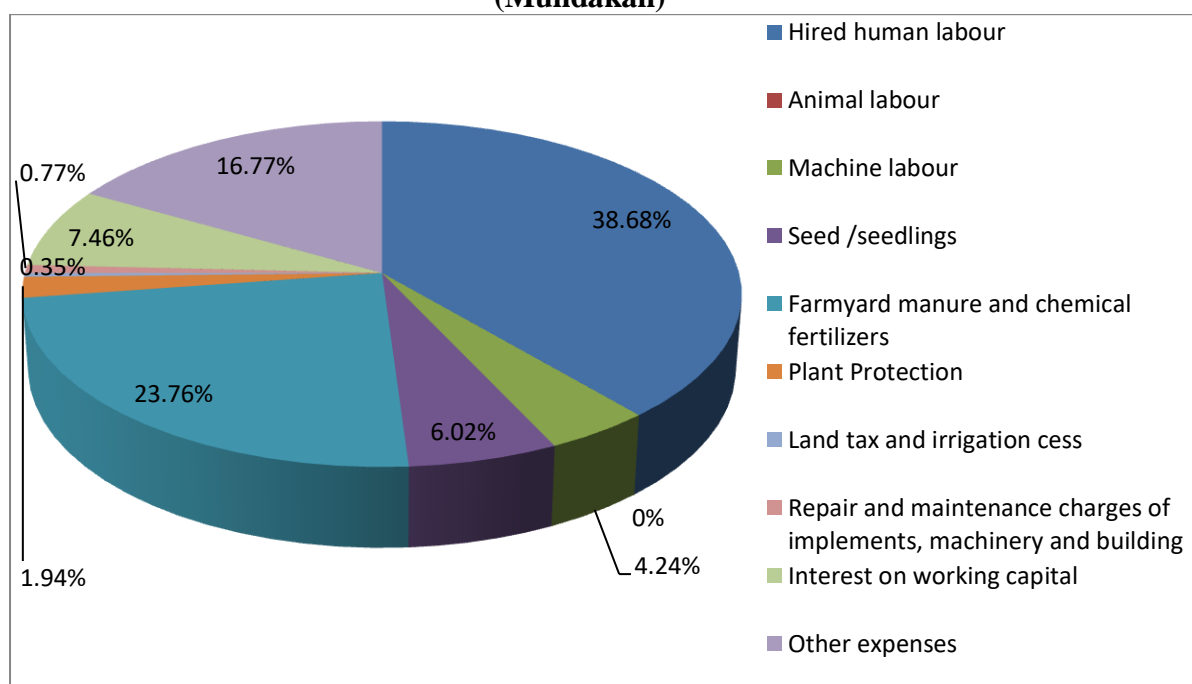


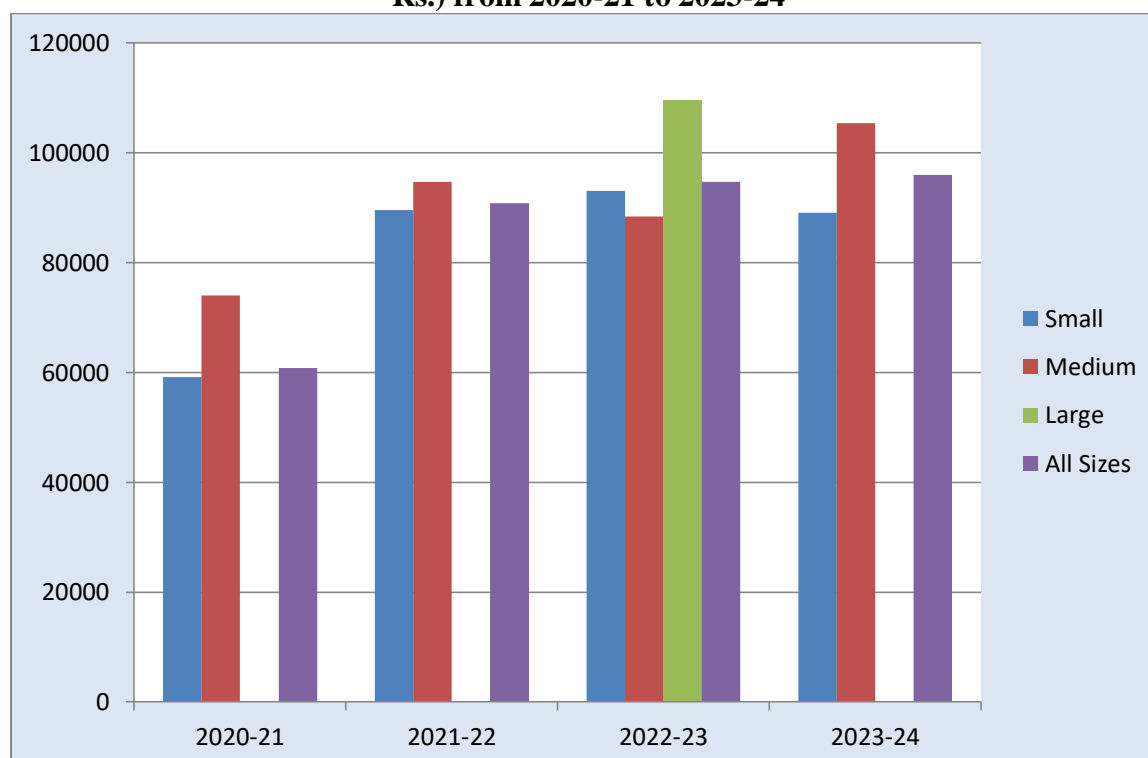
Table 2.13.2.3: Percentage of hired human labour hours to total labour hours of Ash gourd-Winter (Mundakan) during 2023-24

Sex	Holding Size Class			
	Small	Medium	Large	All Sizes
Male	17.69	41.04	-	26.73
Female	7.88	34.98	-	16.6
Total	25.57	76.02	-	43.33

Table 2.13.2.4: Cost of cultivation of Ash gourd-Winter (Mundakan) per hectare (in Rs.) from 2020-21 to 2023-24

Holding size class	Cost A(Rs.)			
	2020-21	2021- 22	2022- 23	2023 - 24
Small	59109	89517	93068	89091
Medium	73965	94684	88345	105378
Large	-	-	109476	-
All Sizes	60767	90859	94700	95953

Figure 2.13.2.2: Cost of cultivation of Ash gourd-Winter (Mundakan) per hectare (in Rs.) from 2020-21 to 2023-24



2.13.2.3 Value of output

Details of product and byproduct for the year 2023-24 is given below.

Table 2.13.2.5: Value of output during the year 2023-24

Year	Holding size class	Product/ Byproduct (inRs.)
2023 - 24	Small	279448
	Medium	253673
	Large	0
	All Sizes	268589

Table 2.13.2.6: Input cost, output cost and Input-output ratio of Ash gourd-Winter (Mundakan) per hectare (in Rs.) from 2020 -21 to 2023-24

Year	Components		
	Input Cost(Rs.)	Output Cost(Rs.)	Input-output ratio
2020-21	60767	258758	4.26
2021-22	90859	249781	2.75
2022-23	94700	276150	2.92
2023-24	95953	268589	2.78

Figure 2.13.2.3: Input cost, output cost and Input-output ratio of Ash gourd-Winter (Mundakan) per hectare (in Rs.) from 2020 -21 to 2023-24

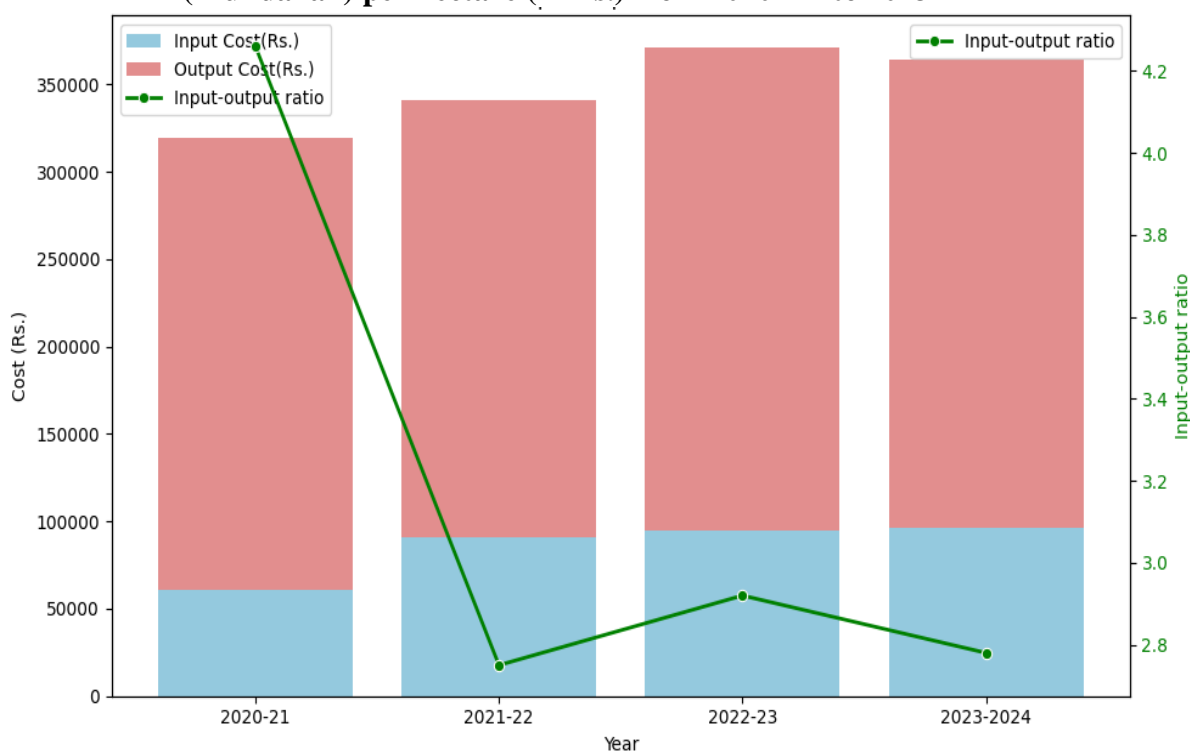
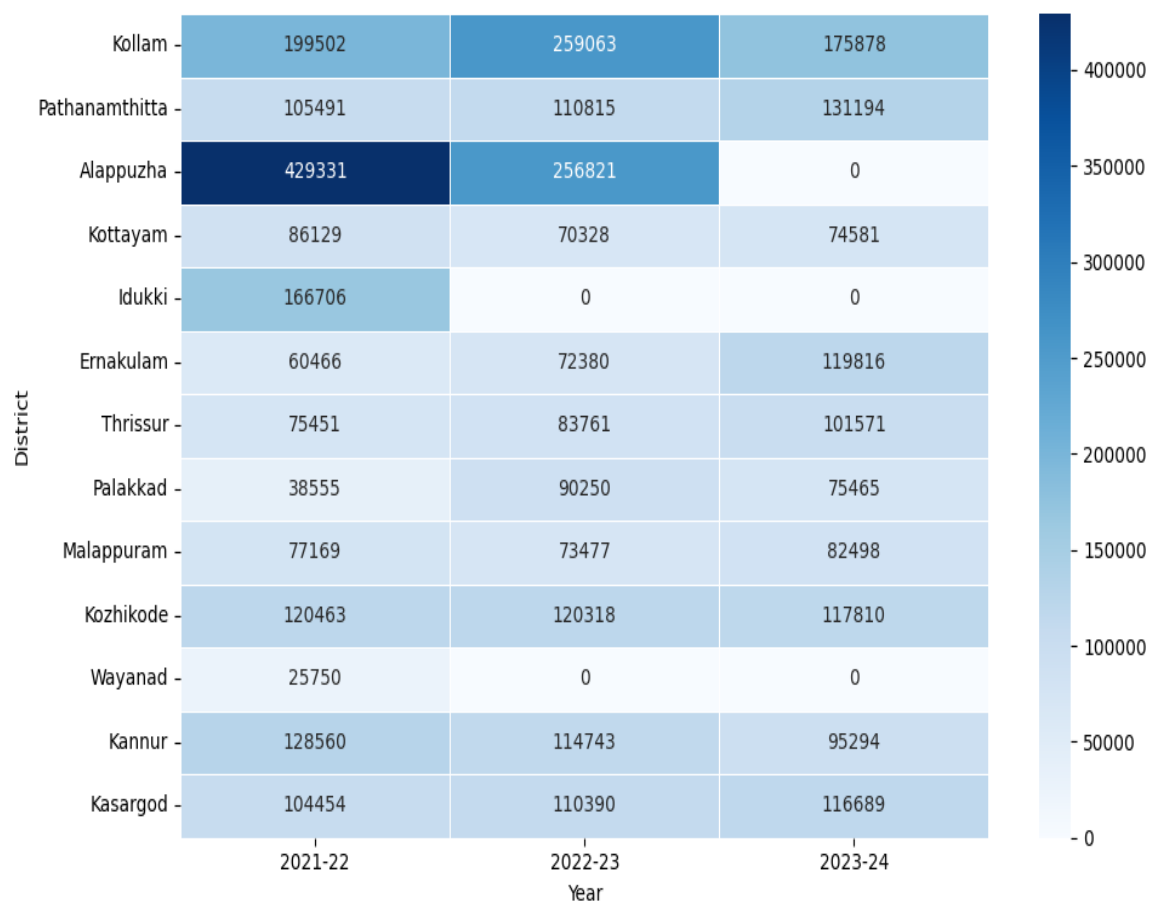


Table 2.13.2.7: District wise Cost of Cultivation (In Rs.) Per Hectare of Ash gourd – Winter From 2021-22to 2023-24

DISTRICT	COST A		
	2021-22	2022-23	2023-24
Kollam	199502	259063	175878
Pathanamthitta	105491	110815	131194
Alappuzha	429331	256821	0
Kottayam	86129	70328	74581
Idukki	166706	0	0
Ernakulam	60466	72380	119816
Thrissur	75451	83761	101571
Palakkad	38555	90250	75465
Malappuram	77169	73477	82498
Kozhikode	120463	120318	117810
Wayanad	25750	0	0
Kannur	128560	114743	95294
Kasargod	104454	110390	116689

Figure 2.13.3.4: District wise Cost of Cultivation (In Rs.) Per Hectare of Ash gourd – Winter From 2021-22to 2023-24



2.13.3. Ash gourd-Summer (Puncha)

2.13.3.1 Area under Ash gourd-Summer (Puncha) Cultivation

Details of holding selected and area coverage for this study are given below. The data collected from 119 holdings according to the size class by covering 8.45 hectares of land.

Table 2.13.3.1: Number of holdings and area under Ash gourd-Summer (Puncha)

Holding size class	Sample size (No.s)	Area under the crop in the sample(ha)	Percentage Area	Average Area Per holding(ha)
Small	105	3.95	47	0.04
Medium	13	3.68	44	0.28
Large	1	0.82	9	0.81
Total	119	8.45	100	0.07

2.13.3.2 Cost of cultivation

The estimated cost of cultivation of different items per hectare of Ash gourd(summer) is furnished in the below table.

Table 2.13.3.2: Cost of Cultivation per hectare (in Rs.) of Ash gourd-Summer (Puncha)

Sl.No	Components	Holding Size Class			
		Small	Medium	Large	All Sizes
1	Hired human labour	26174	49457	42682	37914
2	Animal labour	0	0	0	0
3	Machine labour	3165	6087	0	4136
4	Seed /seedlings	6990	5563	2964	5981
5	Farmyard manure and chemical fertilizers	31623	38071	44892	35708
6	Plant Protection	1385	1224	2717	1443
7	Land tax and irrigation cess	475	221	800	395
8	Repair and maintenance charges of implements, machinery and building	2388	236	0	1220
9	Interest on working capital	6934	10040	9325	8518
10	Other expenses	21676	26574	32727	24872
11	Total cost 'A'(1-10)	100809	137472	136108	120187
12	Interest on fixed capital	55277	7029	37	28917

13	Cost 'B1'(11+12)	156086	144501	136145	149105
14	Interest on land value	544996	472868	264000	486590
15	Cost 'B'(13+14)	701082	617370	400145	635694
16	Imputed value of household labour	106477	54512	24762	75973
17	Cost 'C'(15+16)	807559	671882	424907	711668

Figure 2.13.3.1: Cost of Cultivation per hectare (in Rs.) of Ashgourd-Summer(Puncha)

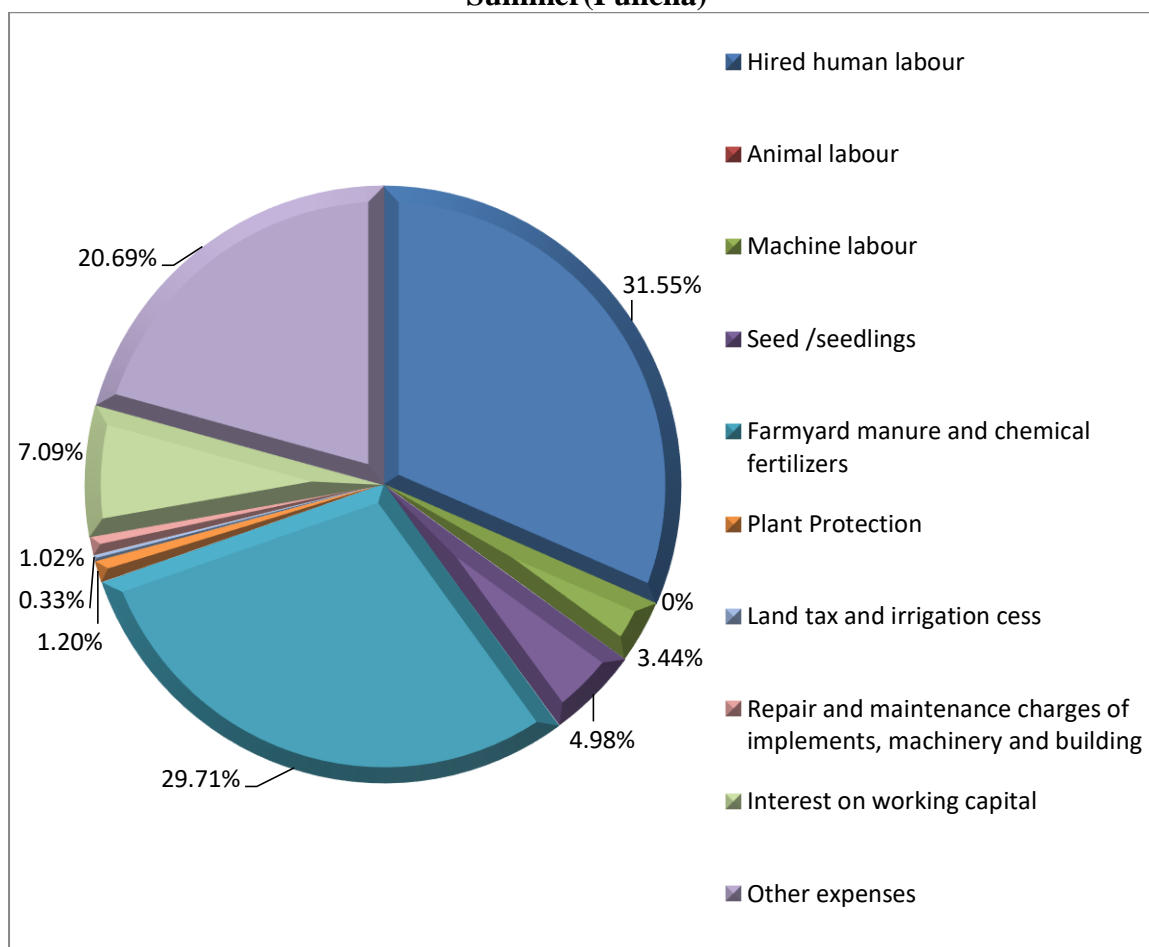


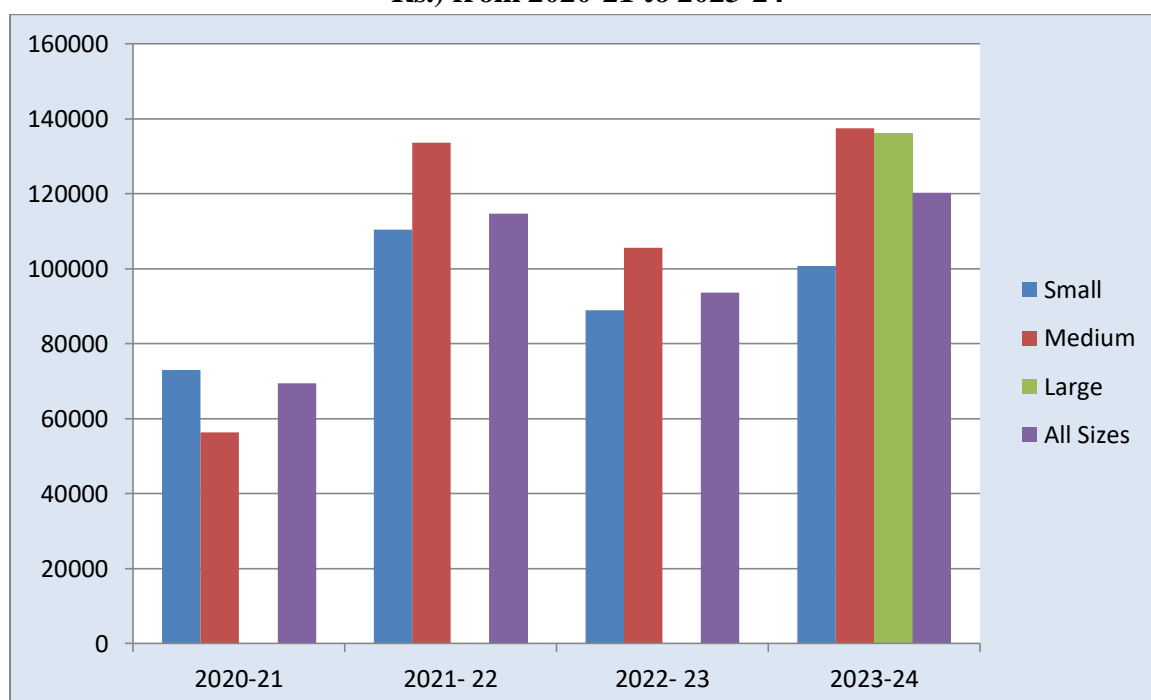
Table 2.13.3.3: Percentage of hired human labour hours to total labour hours of Ashgourd-Summer(Puncha) during 2023 – 2024

Sex	Holding Size Class			
	Small	Medium	Large	All Sizes
Male	15.49	40.31	63.44	27.26
Female	2.99	9.78	-	3.92
Total	18.48	50.09	63.44	31.18

Table 2.13.3.4: Cost of cultivation of Ash gourd-Summer (Puncha) per hectare (in Rs.) from 2020-21 to 2023-24

Holding size class	Cost A(Rs.)			
	2020-21	2021- 22	2022- 23	2023-24
Small	72960	110415	88985	100809
Medium	56349	133576	105621	137472
Large	-	-	-	136108
All Sizes	69373	114748	93615	120187

Figure 2.13.3.2: Cost of cultivation of Ash gourd-Summer(Puncha) per hectare (in Rs.) from 2020-21 to 2023-24



2.13.2.3 Value of output

Details of product and byproduct for the year 2023-24 is given below.

Table 2.13.2.5: Value of output during the year 2023-24

Year	Holding size class	Product/Byproduct (inRs.)
2023 - 24	Small	312278
	Medium	359462
	Large	318274
	All Sizes	333437

Table 2.13.3.6: Input cost, output cost and Input-output ratio of Ash gourd-Summer (Puncha) per hectare (in Rs.) from 2020 -21 to 2023-24

Year	Components		
	Input Cost(Rs.)	Output Cost(Rs.)	Input-output ratio
2020-21	69373	170956	2.46
2021-22	114748	308007	2.68
2022-23	93615	259477	2.77
2023-24	120187	333437	2.77

Figure 2.13.3.3: Input cost, output cost and Input-output ratio of Ash gourd-Summer(Puncha) per hectare (in Rs.) from 2020 -21 to 2023-24

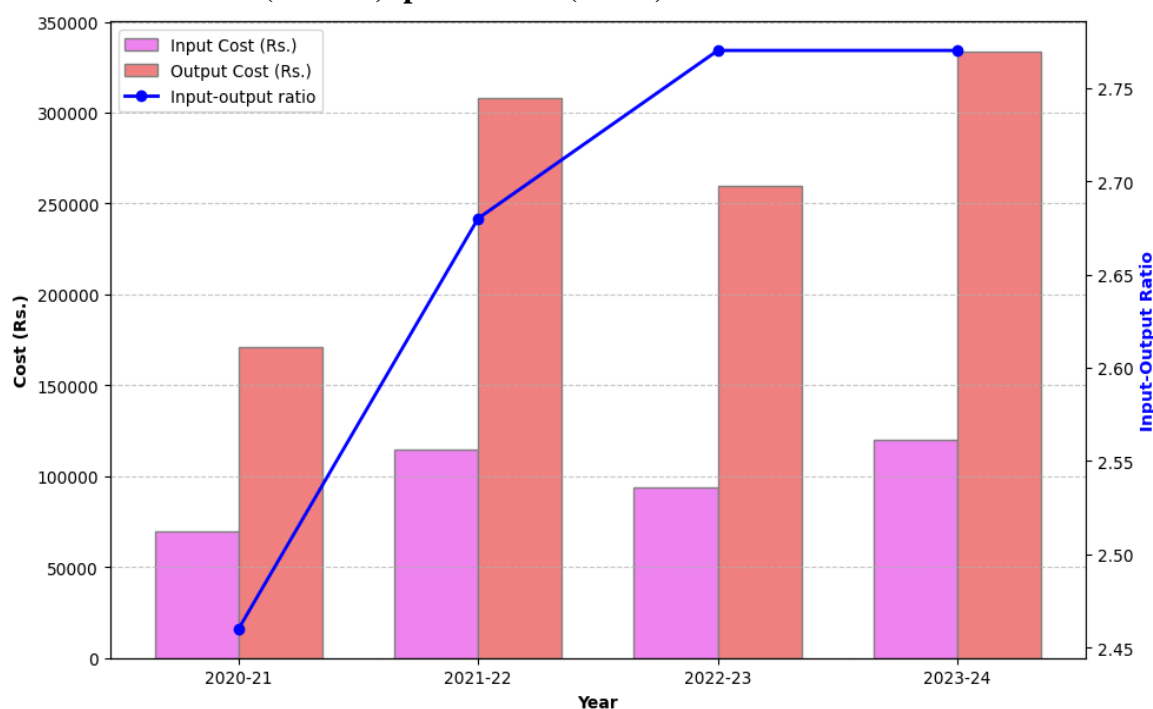
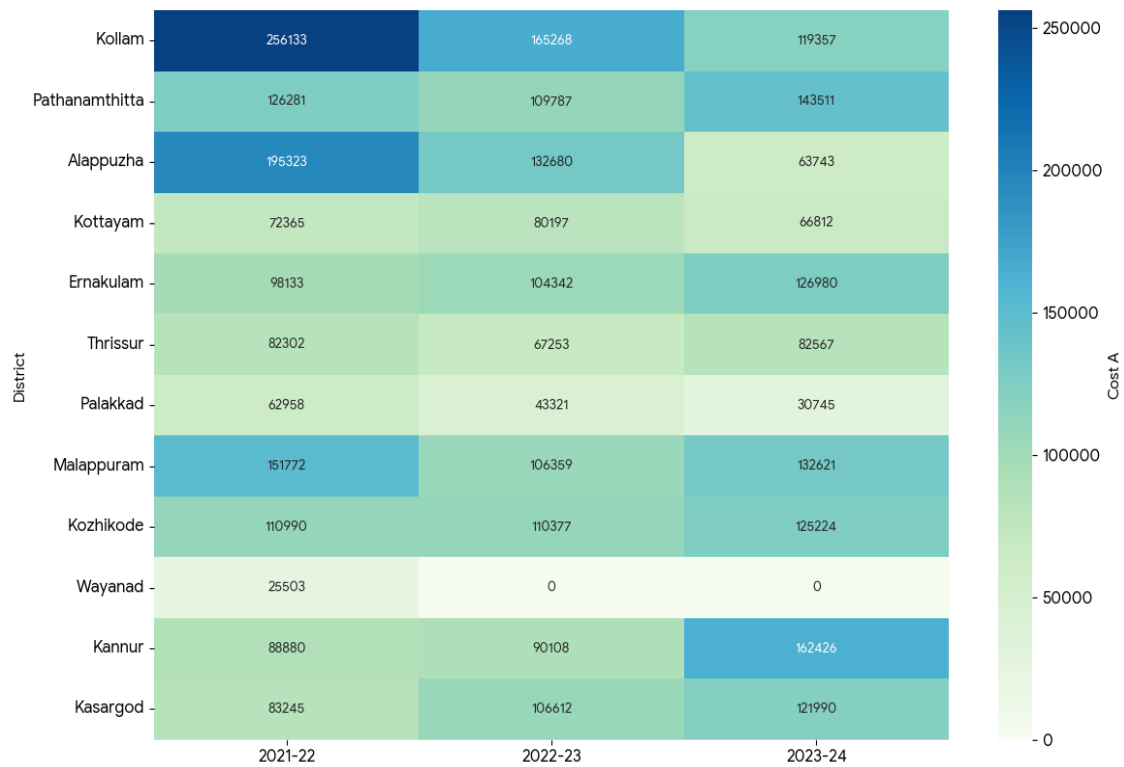


Table 2.13.3.7: District wise Cost of Cultivation (In Rs.) Per Hectare of Ash gourd - Summer From 2021-22 to 2023-24

DISTRICT	COST A		
	2021-22	2022-23	2023-24
Kollam	256133	165268	119357
Pathanamthitta	126281	109787	143511
Alappuzha	195323	132680	63743
Kottayam	72365	80197	66812
Ernakulam	98133	104342	126980
Thrissur	82302	67253	82567

Palakkad	62958	43321	30745
Malappuram	151772	106359	132621
Kozhikode	110990	110377	125224
Wayanad	25503	0	0
Kannur	88880	90108	162426
Kasargod	83245	106612	121990

Figure 2.13.3.4: District wise Cost of Cultivation (In Rs.) Per Hectare of Ash gourd - Summer From 2021-22 to 2023-24



2.14

CUCUMBER

2.14.1 Cucumber-Autumn (Virippu)

2.14.1.1 Area under Cucumber–Autumn Cultivation

For this study details of holding selected and area coverage are given below. The data collected from 152 sample holding by covering 16.51 hectares and the average area per holding is 0.11 hectare.

Table 2.14.1.1: Number of holdings and area under Cucumber –Autumn

Holding Size class	Sample size (No.S)	Area under the crop in the sample(ha)	Percentage Area	Average Area Per holding(ha)
Small	127	8.17	50	0.06
Meddium	25	8.34	50	0.33
Large	-	-	-	-
Total	152	16.51	100	0.11

2.14.1.2 Cost of cultivation

The estimated cost of cultivation of different items per hectare of Cucumber - Autumn is furnished in the below table.

Table 2.14.1.2: Cost of Cultivation per hectare(in Rs.) of Cucumber –Autum

Sl.No	Components	Holding Size Class			
		Small	Medium	Large	All Sizes
1	Hired human labour	34207	33570	-	33886
2	Animal labour	0	0	-	0
3	Machine labour	367	1932	-	1157
4	Seed/seedlings	3505	4030	-	3770
5	Farmyard manure and chemical fertilizers	29809	29485	-	29646
6	Plant Protection	1853	1333	-	1591
7	Land tax and irrigation cess	192	30	-	110
8	Repair and maintenance charges of implements, machinery and building	2010	455	-	1225
9	Interest on working capital	6974	7035	-	7005
10	Other expenses	21978	26669	-	24346

11	Total cost'A'(1-10)	100897	104540	-	102736
12	Interest on fixed capital	14221	916	-	7503
13	Cost'B1'(11+12)	115118	105457	-	110239
14	Interest on land value	682552	1195147	-	941301
15	Cost'B'(13+14)	797670	1300604	-	1051541
16	Inputed value of household labour	83294	62032	-	72561
17	Cost'C'(15+16)	880964	1362636	-	1124102

Figure 2.14.1.1: Cost of Cultivation per hectare (in Rs.) of Cucumber - Autumn

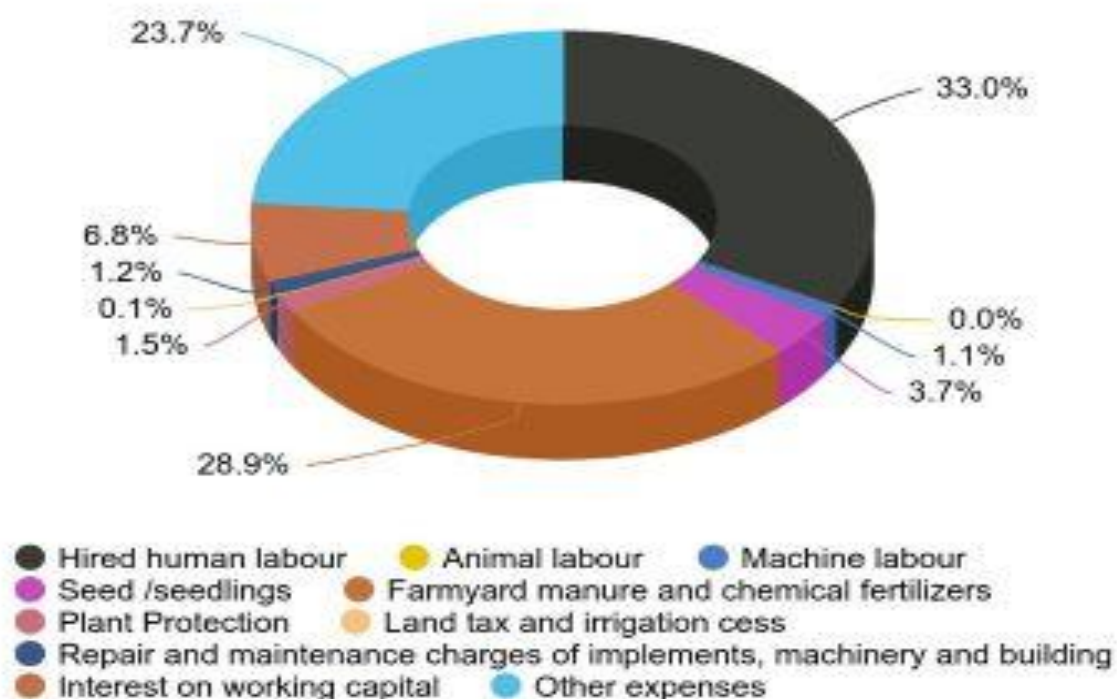


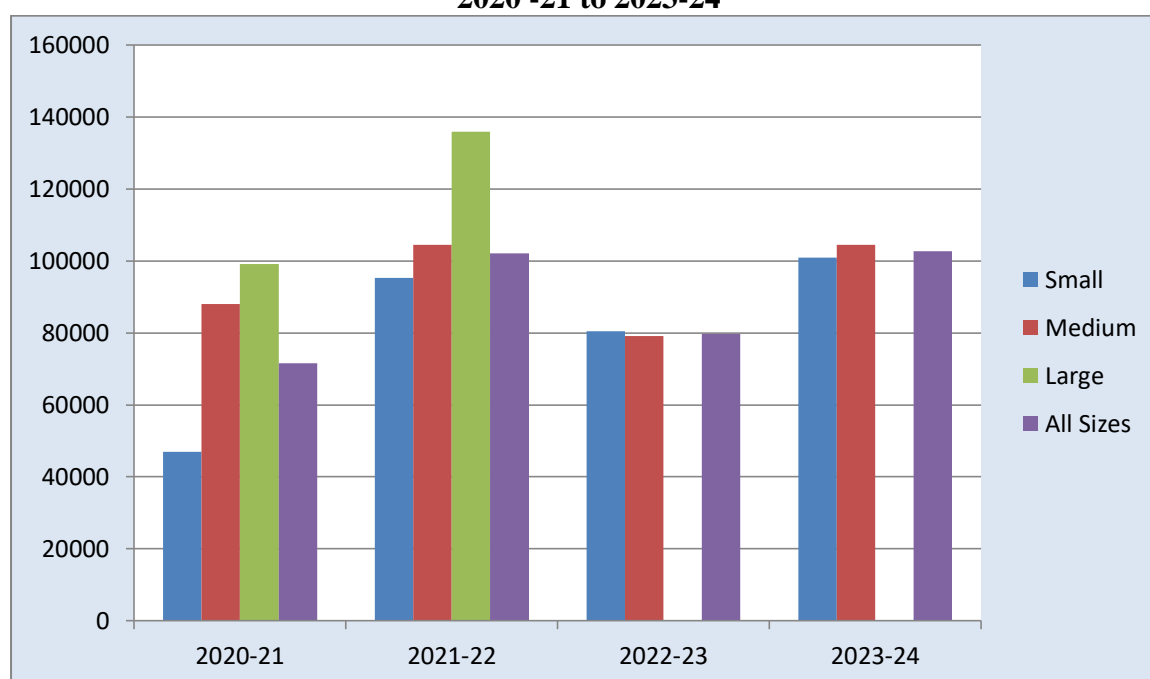
Table 2.14.1.3: Percentage of hired human labour hours to total labour hours of Cucumber Autumn during 2023 - 24

Sex	Holding Size Class			
	Small	Medium	Large	All Sizes
Male	19.97	33.03	-	24.9
Female	2.63	5.42	-	2.79
Total	22.6	38.45	-	27.69

Table 2.14.1.4: Cost of cultivation of Autumn Cucumber per hectare (inRs.) from 2020 -21 to 2023-24

Holding size class	Cost A(Rs.)			
	2020-21	2021-22	2022-23	2023 - 24
Small	46974	95352	80446	100897
Medium	87954	104493	79200	104540
Large	99211	135920	-	-
All Sizes	71630	102037	79768	102736

Figure 2.14.1.2: Cost of cultivation of Cucumber -Autumn per hectare (in Rs.) from 2020 -21 to 2023-24



2.14.1.3 Value of output

Details of product and by product for the year 2023-24 is given below.

Table 2.14.1.5: Value of output during the year 2023-24

Year	Holding size class	Product/Byproduct (in Rs.)
2023-24	Small	281339
	Medium	266992
	Large	0
	All Sizes	274097

Table 2.14.1.6: Input cost, output cost and Input-output ratio of Autumn Cucumber per hectare (in Rs.) from 2020 -21 to 2023-24

Year	Components		
	Input Cost(Rs.)	Output Cost(Rs.)	Input-output ratio
2020-21	71630	145425	2.03
2021-22	102037	254016	2.49
2022-23	79768	222863	2.79
2023-24	102736	274097	2.66

Figure 2.14.1.3: Input cost, output cost and Input-output ratio of Cucumber per hectare (in Rs.) from 2020 -21 to 2023-24

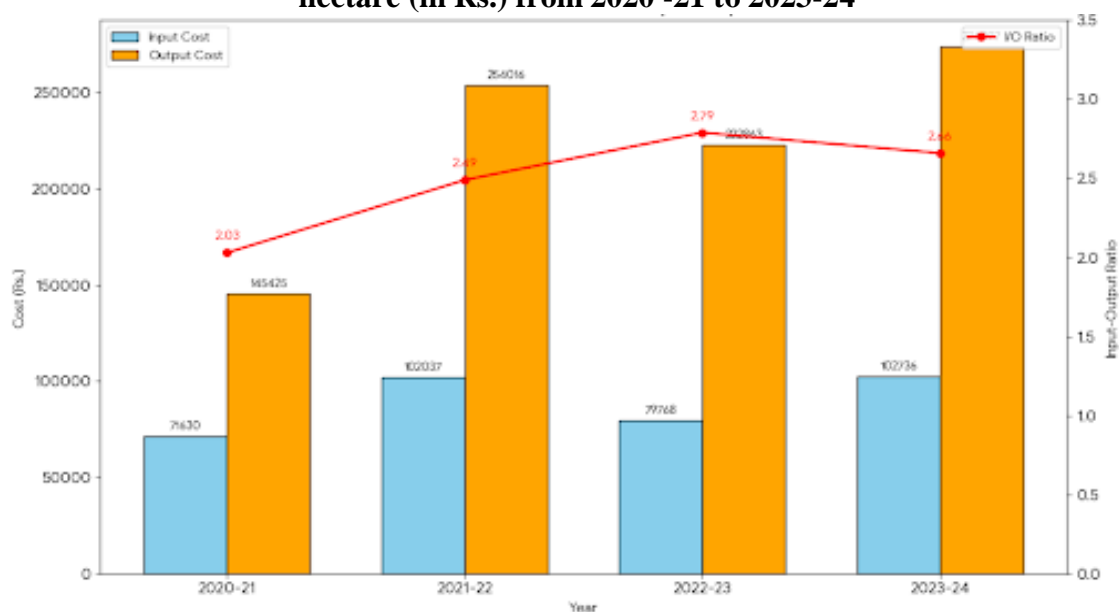


Table 2.14.1.7: District wise Cost of Cultivation (In Rs.) Per Hectare of Cucumber - Autumn during 2021-22 to 2023-24

DISTRICT	COST A		
	2021-22	2022-23	2023-24
Thiruvananthapuram	150953	96070	122731
Kollam	105528	159366	216042
Pathanamthitta	89342	71503	188601
Alappuzha	88811	60378	64189
Kottayam	53807	60124	52161
Ernakulam	52334	102555	88052
Thrissur	47349	43856	86572
Palakkad	56215	67152	35062
Malappuram	67754	87954	84637

Kozhikode	104036		29574
Kannur	117392	120774	116927

Figure 2.14.1.4: District wise Cost of Cultivation (In Rs.) Per Hectare of Cucumber - Autumn from 2021-22 to 2023-24



2.14.2 Cucumber -Winter (Mundakan)

2.14.2.1 Area under Cucumber -Winter cultivation

For this study details of holding selected and area coverage are given below. The data collected from 163 sample holding by covering 17.15 hectares and the average area per holding is 0.11 hectare.

Table 2.14.2.1: Number of holdings and area under Cucumber- Winter

Holding size class	Sample size (No.s)	Area under the crop in the sample (ha)	Percentage Area	Average Area Per holding (ha)
Small	134	9.19	54	0.07
Medium	29	7.96	56	0.27
Large	-	-	-	-
Total	163	17.15	100	0.11

2.14.2.2 Cost of cultivation

The estimated cost of cultivation of different items per hectare of Cucumber Winter is furnished in the below table.

Table 2.14.2.2: Cost of Cultivation per hectare(in Rs.) of Cucumber Winter during 2023-24

Sl.No	Components	Holding Size Class			
		Small	Medium	Large	All Sizes
1	Hired human labour	29722	36522	-	32877
2	Animal labour	0	0	-	0
3	Machine labour	2433	2927	-	2662
4	Seed/seedlings	4781	3773	-	4313
5	Farmyard manure and chemical fertilizers	34176	25006	-	29921
6	Plant Protection	2410	2789	-	2586
7	Land tax and irrigation cess	278	111	-	200
8	Repair and maintenance charges of implements, machinery and building	873	553	-	725
9	Interest on working capital	7352	7102	-	7236
10	Other expenses	18900	18881	-	18891
11	Total cost'A'(1-10)	100924	97664	-	99412
12	Interest on fixed capital	16835	2489	-	10181
13	Cost'B1'(11+12)	117760	100154	-	109593
14	Interest on land value	614590	555190	-	587028
15	Cost'B'(13+14)	732350	655343	-	696620
16	Imputed value of household labour	90430	59374	-	76020
17	Cost'C'(15+16)	822780	714717	-	772640

Figure 2.14.2.1: Percentage Distribution of COST A per hectare of Winter Cucumber during 2023-24

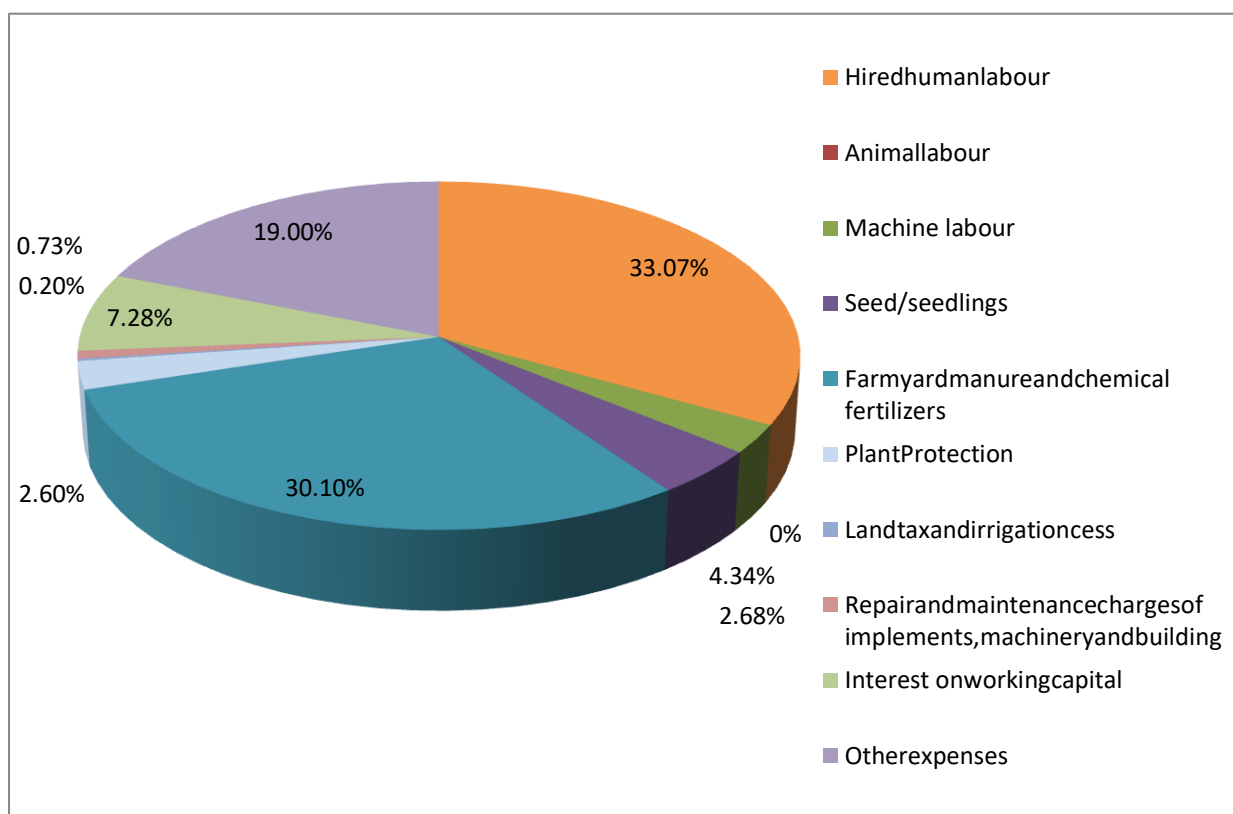


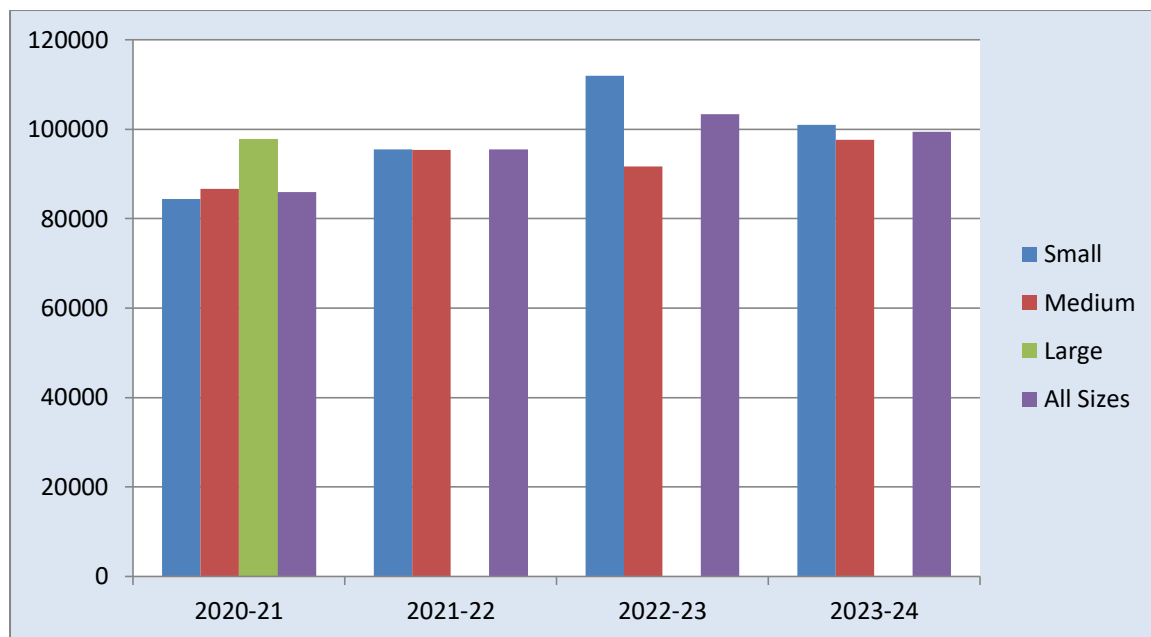
Table 2.14.2.3: Percentage of hired human labour hours to total labour hours of Cucumber Winter during 2023-24

Sex	Holding Size Class			
	Small	Medium	Large	All Sizes
Male	21.56	36.04	-	27.51
Female	5.56	6.54	-	4.56
Total	27.12	42.58	-	32.07

Table 2,14.2.4: Cost of cultivation of Winter Cucumber per hectare (in Rs.) from 2020-21 to 2023-24

Holding size class	Cost A			
	2020-21	2021-22	2022-23	2023-24
Small	84336	95534	112003	100924
Medium	86619	95396	91712	97664
Large	97660	-	-	-
All Sizes	85948	95466	103357	99412

Figure 2.14.2.2: Cost of cultivation of WinterCucumber per hectare (inRs.) from 2020-21 to 2023-24



2.14.2.3 Value of output

Details of product and by product for the year 2023-24 is given below.

Table 2.14.2.5: Value of output during the year 2023-24

Year	Holding size class	Product/Byproduct (in Rs.)
2023-24	Small	272579
	Medium	288258
	Large	0
	All Sizes	279854

Table.2.14.2.6 :Input cost. Out put cost and Input-output cost ratio of cucumber Winter per hectare (in Rs.) from 2020-21 to 2023-24

Year	Components		
	Input Cost	Output Cost	Input-output ratio
2020-21	85948	187145	2.18
2021-22	95466	215463	2.26
2022-23	103357	269466	2.61
2023-24	99412	279854	2.81

From the data collected it is evident that the input- output ratio has some variations over the years and the efficiency is higher during the year 2023-24

Figure 2.14.2.3: Input cost, output cost and Input-output ratio of Winter Cucumber per hectare (in Rs.) from 2020 -21 to 2023-24

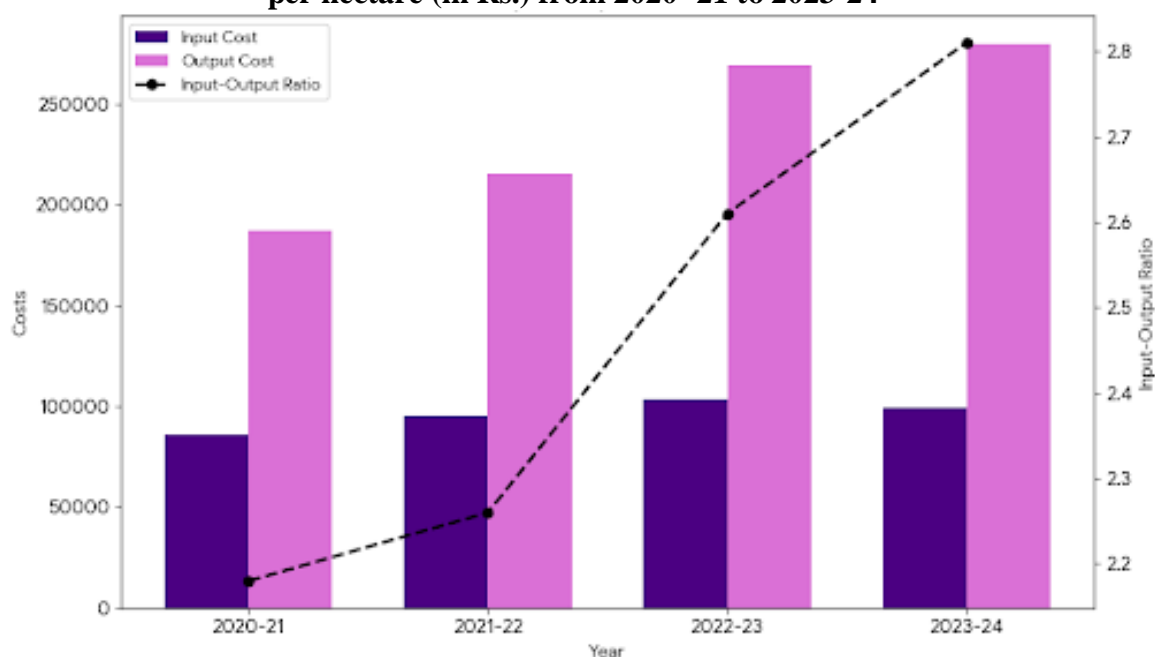
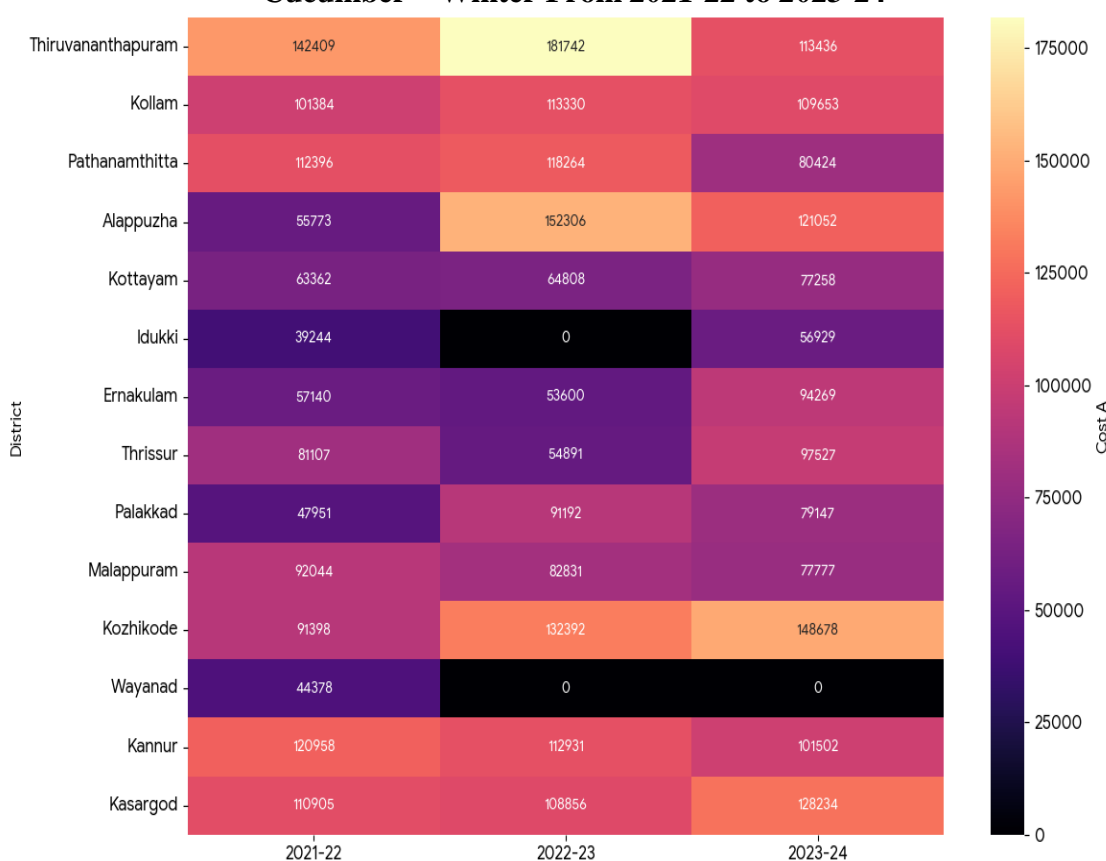


Table.2.14.2.7: District wise Cost of Cultivation (In Rs.) Per Hectare of Cucumber – Winter From 2021-22 to 2023-24

DISTRICT	COST A		
	2021-22	2022-23	2023-24
Thiruvananthapuram	142409	181742	113436
Kollam	101384	113330	109653
Pathanamthitta	112396	118264	80424
Alappuzha	55773	152306	121052
Kottayam	63362	64808	77258
Idukki	39244	0	56929
Ernakulam	57140	53600	94269
Thrissur	81107	54891	97527
Palakkad	47951	91192	79147
Malappuram	92044	82831	77777
Kozhikode	91398	132392	148678
Wayanad	44378	0	0
Kannur	120958	112931	101502
Kasargod	110905	108856	128234

Figure 2.14.2.4: District wise Cost of Cultivation (In Rs.) Per Hectare of Cucumber – Winter From 2021-22 to 2023-24



2.14.3 Cucumber-Summer(Puncha)

2.14.3.1 Area under Cucumber-Summer Cultivation

For this study details of holding selected and area coverage are given below. The data collected from 204 sample holding by covering 20.68 hectares and the average area per holding is 0.10 hectare.

Table 2.14.3.1: Number of holdings and area under Cucumber-Summer

Holding size class	Sample size (No.s)	Area under the crop in the sample(ha)	Percentage Area	Average Area Per holding(ha)
Small	171	9.03	43	0.05
Medium	31	9.22	45	0.30
Large	2	2.43	12	1.22
Total	204	20.68	100	0.10

2.14.3.2 Cost of cultivation

The estimated cost of cultivation of different items per hectare of Cucumber Summer is furnished in the below table.

Table 2.14.3.2: Cost of Cultivation per hectare (in Rs.) of Cucumber(Summer)

Sl.No	Components	Holding Size Class			
		Small	Medium	Large	All Sizes
1	Hired human labour	33843	39974	29982	36124
2	Animal labour	0	0	0	0
3	Machine labour	2365	8853	8892	6025
4	Seed/seedlings	4093	6108	5498	5157
5	Farmyard manure and chemical fertilizers	36210	34412	37729	35586
6	Plant Protection	1838	1130	391	1352
7	Land tax and irrigation cess	251	49	0	132
8	Repair and maintenance charges of implements, machinery and building	1341	640	0	871
9	Interest on working capital	7835	9048	8249	8424
10	Other expenses	19806	19352	8398	18263
11	Total cost'A'(1-10)	107581	119566	99139	111935
12	Interest on fixed capital	27332	6624	227	14913
13	Cost'B1'(11+12)	134914	126190	99366	126848
14	Interest on land value	461704	510140	193599	451813
15	Cost'B'(13+14)	596618	636331	292965	578661
16	Inputed value of household labour	103805	62002	36274	77230
17	Cost'C'(15+16)	700423	698332	329239	655891

Figure 2.14.1.1: Cost of Cultivation per hectare (in Rs.) of Cucumber – (summer)

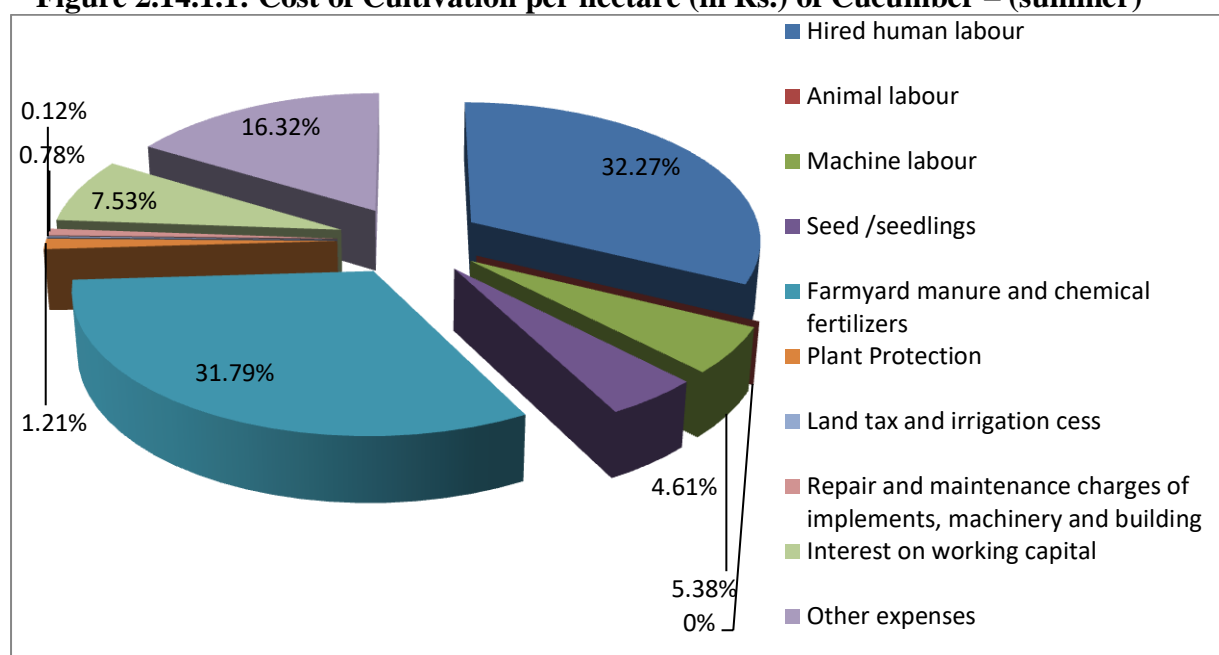


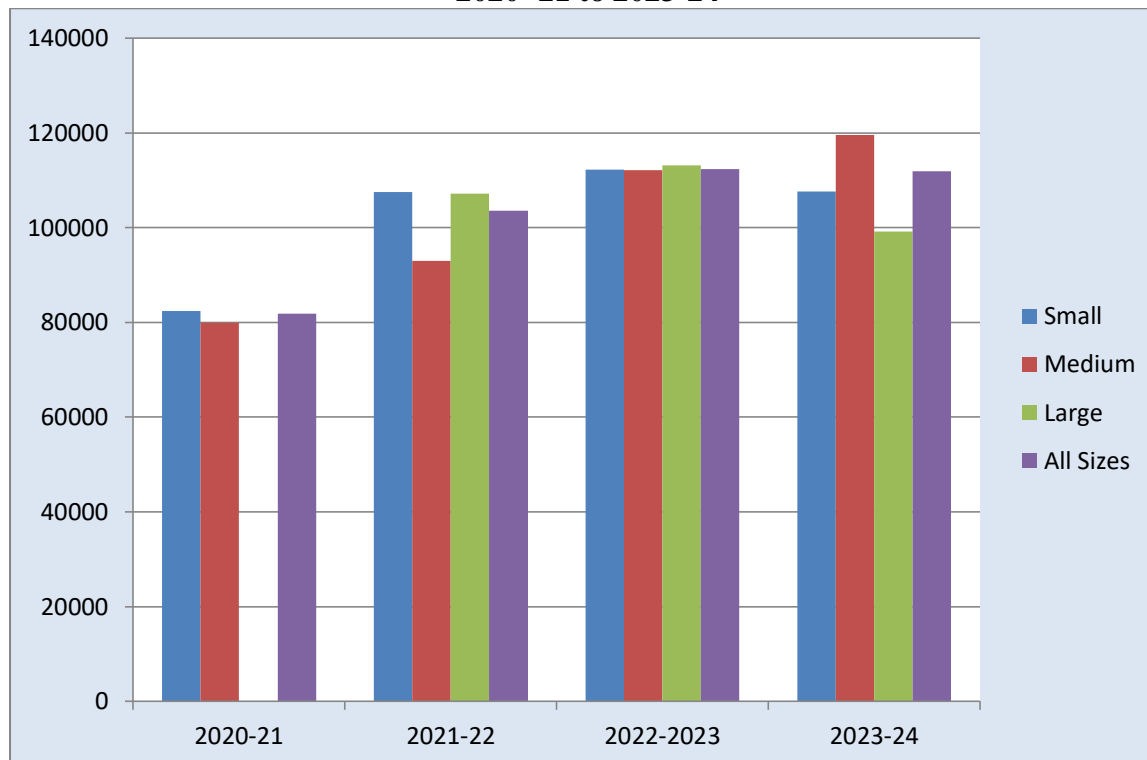
Table 2.14.3.3: Percentage of hired human labour hours to total labour hours of Cucumber Summer during 2023 - 24

Sex	Holding Size Class			
	Small	Medium	Large	All Sizes
Male	22.09	35.52	45.11	28.81
Female	2.19	5.26	-	2.38
Total	24.28	40.78	45.11	31.19

Table 2.14.3.4: Cost of cultivation of Summer Cucumber per hectare (inRs.) from 2020 -21 to 2023-24

Holding size class	Cost A (Rs.)			
	2020-21	2021-22	2022-23	2023-24
Small	82379	107495	112206	107581
Medium	79954	93006	112125	119566
Large	0	107122	113099	99139
All Sizes	81859	103591	112311	111935

Figure 2.14.1.2: Cost of cultivation of Cucumber –summer per hectare (in Rs.) from 2020 -21 to 2023-24



2.14.3.3 Value of output

Details of product and by product for the year 2023-24 is given below.

Table 2.14.3.5: Value of output during the year 2023-24

Year	Holding size class	Product/Byproduct (in Rs.)
2023 - 24	Small	302206
	Medium	275348
	Large	214517
	All Sizes	279928

Table 2.14.3.6: Input cost, output cost and Input-output ratio of Summer Cucumber per hectare (in Rs.) from 2020 -21 to 2023-24

Year	Components		
	Input Cost(Rs.)	Output Cost(Rs.)	Input-output ratio
2020-21	81859	218802	2.67
2021-22	103591	231026	2.23
2022-23	112311	282096	2.51
2023-24	111935	279928	2.51

Figure 2.14.3.3: Input cost, output cost and Input-output ratio of Summer Cucumber per hectare (in Rs.) from 2020 -21 to 2023-24

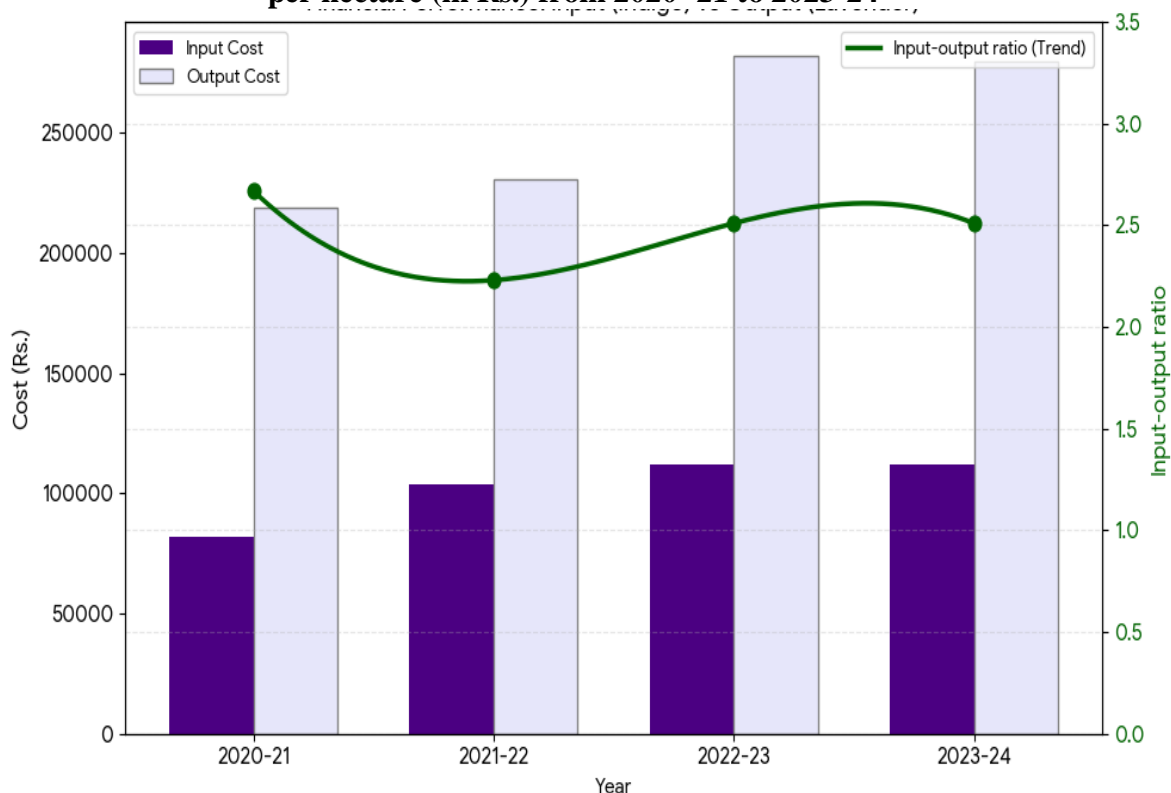
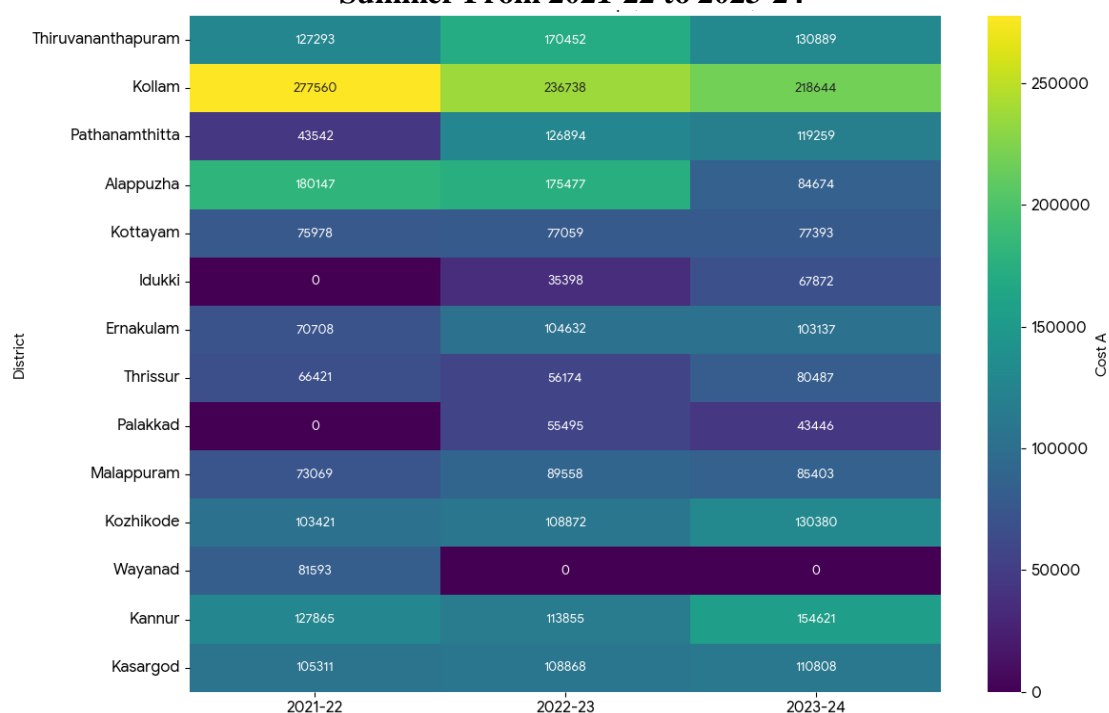


Table 2.14.3.7: District wise Cost of Cultivation (In Rs.) Per Hectare of Cucumber – Summer From 2021-22 to 2023-24

DISTRICT	COST A		
	2021-22	2022-23	2023-24
Thiruvananthapuram	127293	170452	130889
Kollam	277560	236738	218644
Pathanamthitta	43542	126894	119259
Alappuzha	180147	175477	84674
Kottayam	75978	77059	77393
Idukki	0	35398	67872
Ernakulam	70708	104632	103137
Thrissur	66421	56174	80487
Palakkad	0	55495	43446
Malappuram	73069	89558	85403
Kozhikode	103421	108872	130380
Wayanad	81593	0	0
Kannur	127865	113855	154621
Kasargod	105311	108868	110808

Figure 2.14.3.4: District wise Cost of Cultivation (In Rs.) Per Hectare of Cucumber – Summer From 2021-22 to 2023-24



2.15

SNAKE GOURD

2.15.1.1 Area under Snake Gourd -Autumn Cultivation

Details of holding selected and area coverage for this study are given below. The study on Snake Gourd - autumn (virippu) cultivation covers a total of 210 holdings across an area of 24.88 hectares.

Table 2.15.1.1: Number of holdings and area under Snake Gourd (Virippu)

Holding size class	Sample size (No.s)	Area under the crop in the sample (ha)	Percentage Area	Average Area Per holding (ha)
Small	168	11.21	45	0.07
Medium	39	11.24	45	0.29
Large	3	2.43	10	0.81
Total	210	24.88	100	0.12

2.15.1.2 Cost of cultivation

The estimated cost of cultivation of different items per hectare of Snake Gourd (autumn) is furnished in the below table.

Table 2.15.1.2: Cost of Cultivation per hectare (in Rs.) of Snake Gourd -Autumn (Virippu)

Sl.No	Components	Holding Size Class			
		Small	Medium	Large	All Sizes
1	Hired human labour	54495	44868	41640	48889
2	Animal labour	0	0	0	0
3	Machine labour	308	5319	18319	4331
4	Seed /seedlings	35987	6440	18772	20954
5	Farmyard manure and chemical fertilizers	28009	19831	11011	22653
6	Plant Protection	4380	2520	3858	3489
7	Land tax and irrigation cess	303	227	988	336
8	Repair and maintenance charges of implements, machinery and building	2269	521	0	1258
9	Interest on working capital	12318	7898	9360	10032
10	Other expenses	38109	30702	4940	31523
11	Total cost 'A'(1-10)	176177	118327	108888	143464

12	Interest on fixed capital	8434	9515	30128	11040
13	Cost 'B1'(11+12)	184612	127842	139016	154504
14	Interest on land value	624930	659202	125278	591632
15	Cost 'B'(13+14)	809541	787045	264294	746136
16	Imputed value of household labour	94415	61039	5681	70668
17	Cost 'C'(15+16)	903957	848084	269975	816804

Figure 2.15.1.1: Percentage Distribution of Cost A per hectare of Snake Gourd - Autumn (Virippu) during 2023-24

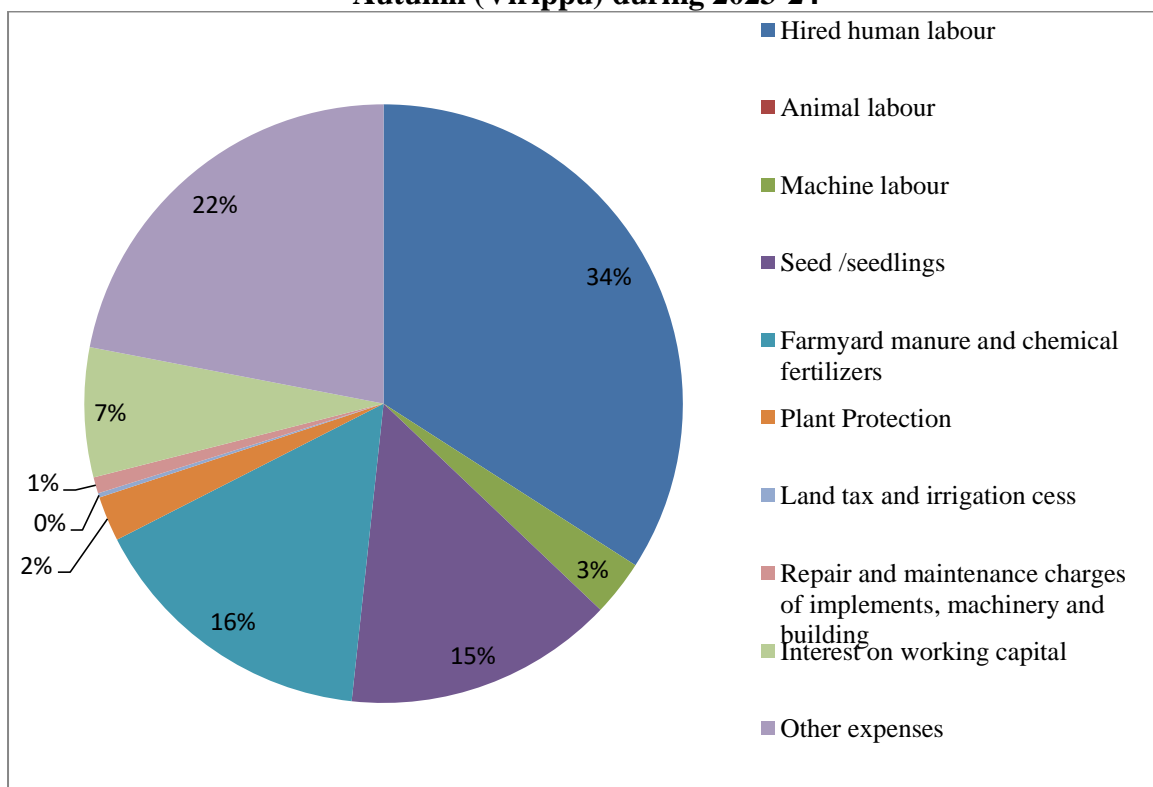


Table 2.15.1.3: Percentage of hired human labour hours to total labour hours of Snake Gourd -Autumn (Virippu) during 2023 - 24

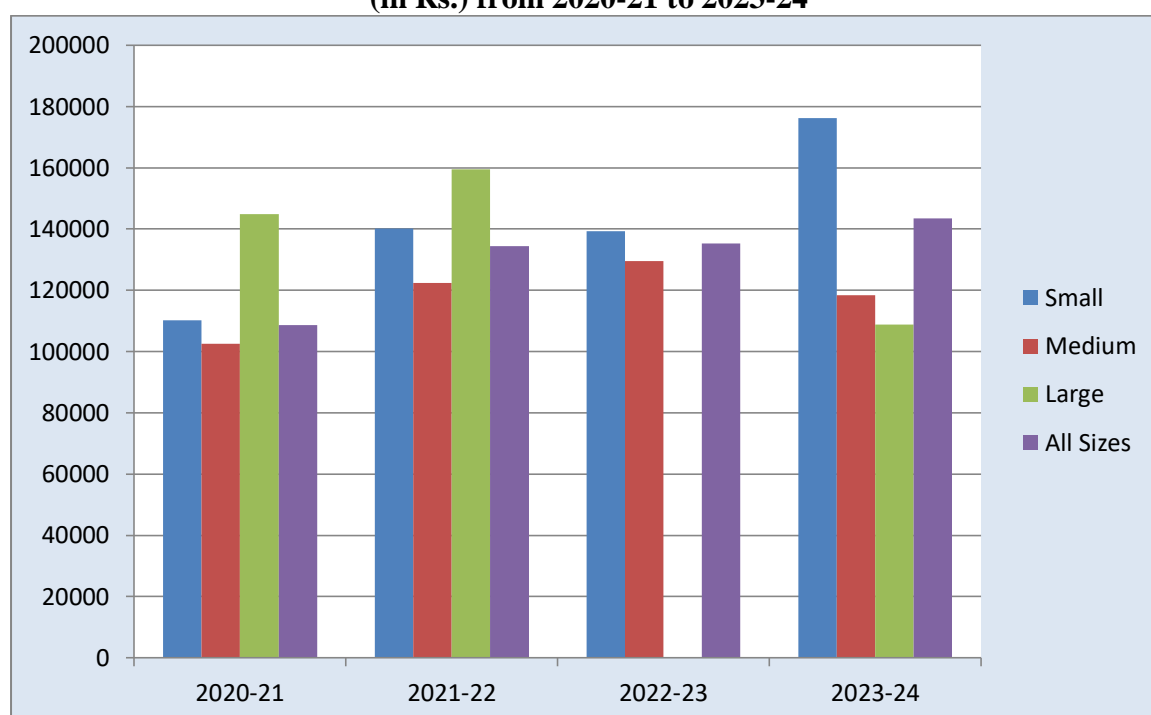
Sex	Holding Size Class			
	Small	Medium	Large	All Sizes
Male	34.15	34.35	26.83	33.73
Female	2.23	13.25	46.59	9.29
Total	36.38	47.60	43.42	43.02

Here the total labour is the sum of hired human labour and household human labour.

Table 2.15.1.4: Cost of cultivation of Snake Gourd -Autumn (Virippu) per hectare (in Rs.) from 2020-21 to 2023-24

Holding size class	Cost A(Rs.)			
	2020-21	2021-22	2022-23	2023-24
Small	110161	140116	139318	176177
Medium	102522	122399	129611	118327
Large	144891	159512	-	108888
All Sizes	108657	134465	135244	143464

Figure 2.15.1.2: Cost of cultivation of Snake Gourd -Autumn (Virippu) per hectare (in Rs.) from 2020-21 to 2023-24



2.15.1.3 Value of output

Details of product and by product for the year 2023-24 are given below.

Table 2.15.1.5: Value of output during the year 2023-24

Year	Holding size class	Product/Byproduct (in Rs.)
2023 - 24	Small	376122
	Medium	332604
	Large	448450
	All Sizes	363517

Table 2.15.1.6: Input cost, output cost and Input-output ratio of Snake Gourd - Autumn (Virippu) per hectare (in Rs.) from 2020 -21 to 2023-24

Year	Components		
	Input Cost(Rs.)	Output Cost(Rs.)	Input-output ratio
2020-21	108657	259779	2.39
2021-22	134465	315524	2.35
2022-23	135244	335532	2.48
2023-24	143464	363517	2.53

Figure 2.15.1.3: Input cost, output cost and Input-output ratio of Snake Gourd - Autumn (Virippu) per hectare (in Rs.) from 2020 -21 to 2023-24

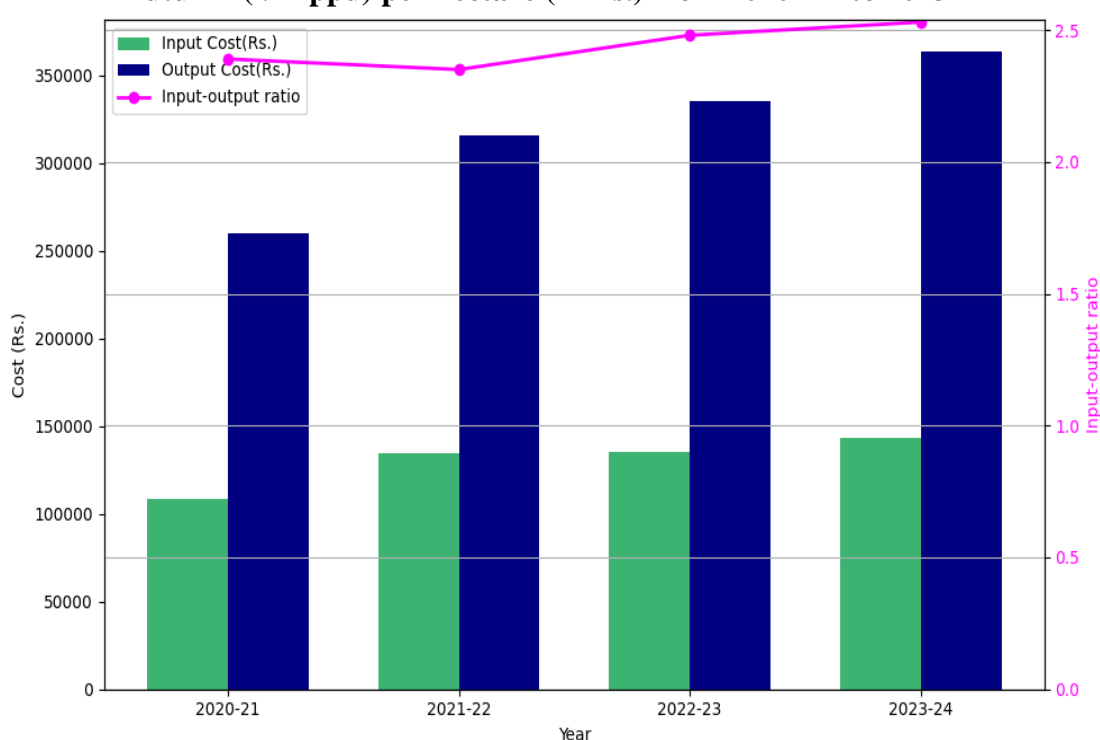


Table 2.15.1.7: Districtwise cost of cultivation (in Rs) per hectare of Snake Gourd - Autumn (Virippu) cultivation from 2021-22 to 2023-24

District	2021-22	2022-23	2023-24
Thiruvananthapuram	166259	156091	146746
Kollam	226617	193807	171091
Pathanamthitta	118227	120847	274664
Alappuzha	164100	175151	153088
Kottayam	126984	148283	151635
Idukki	0	97579	0

Ernakulam	84064	98129	73715
Thrissur	123419	99868	111439
Palakkad	73296	80353	112055
Malappuram	102669	165389	105366
Kozhikode	119402	139684	151837
Wayanad	0	57080	0
Kannur	147942	183668	169577
Kasargod	0	115159	0

Figure 2.15.1.4: Districtwise cost of cultivation (in Rs) per hectare of Snake Gourd - Autumn (Virippu) cultivation from 2021-22 to 2023-24



2.15.2 Snake Gourd -Winter (Mundakan)

2.15.2.1 Area under Snake Gourd -Winter Cultivation (Mundakan)

Details of holding selected and area coverage for this study are given below. The study on Snake Gourd -Winter (Mundakan) cultivation covers a total of 211 holdings across an area of 25.22 hectares.

Table 2.15.2.1: Number of holdings and area under Snake Gourd -Winter (Mundakan)

Holding size class	Sample size (No.s)	Area under the crop in the sample (ha)	Percentage Area	Average Area Per holding (ha)
Small	166	10.14	40	0.06
Medium	41	11.84	47	0.29
Large	4	3.24	13	0.81
Total	211	25.22	100	0.12

2.15.2.2 Cost of cultivation

The estimated cost of cultivation of different items per hectare of Snake Gourd –Winter (Mundakan) is furnished in the below table.

Table 2.15.2.2: Cost of Cultivation per hectare (in Rs.) of Snake Gourd -Winter (Mundakan)

Sl.No	Components	Holding Size Class			
		Small	Medium	Large	All Sizes
1	Hired human labour	48458	61119	51449	55041
2	Animal labour	0	0	0	0
3	Machine labour	754	2331	6793	2266
4	Seed /seedlings	7372	7605	13215	8260
5	Farmyard manure and chemical fertilizers	28872	22971	16529	24464
6	Plant Protection	3155	4078	4198	3717
7	Land tax and irrigation cess	304	452	741	428
8	Repair and maintenance charges of implements, machinery and building	1726	456	0	910
9	Interest on working capital	8861	9810	9218	9375
10	Other expenses	39059	21433	12443	27316
11	Total cost 'A'(1-10)	138562	130256	114585	131778
12	Interest on fixed capital	13719	18783	26326	17654
13	Cost 'B1'(11+12)	152281	149040	140911	149432
14	Interest on land value	645266	628441	318448	592816
15	Cost 'B'(13+14)	797547	777480	459359	742248

16	Inputed value of household labour	100330	59751	12500	69580
17	Cost 'C'(15+16))	897877	837232	471859	811828

Figure 2.15.2.1: Percentage Distribution of Cost A per hectare of Snake Gourd - Winter (Mundakan) during 2023-24

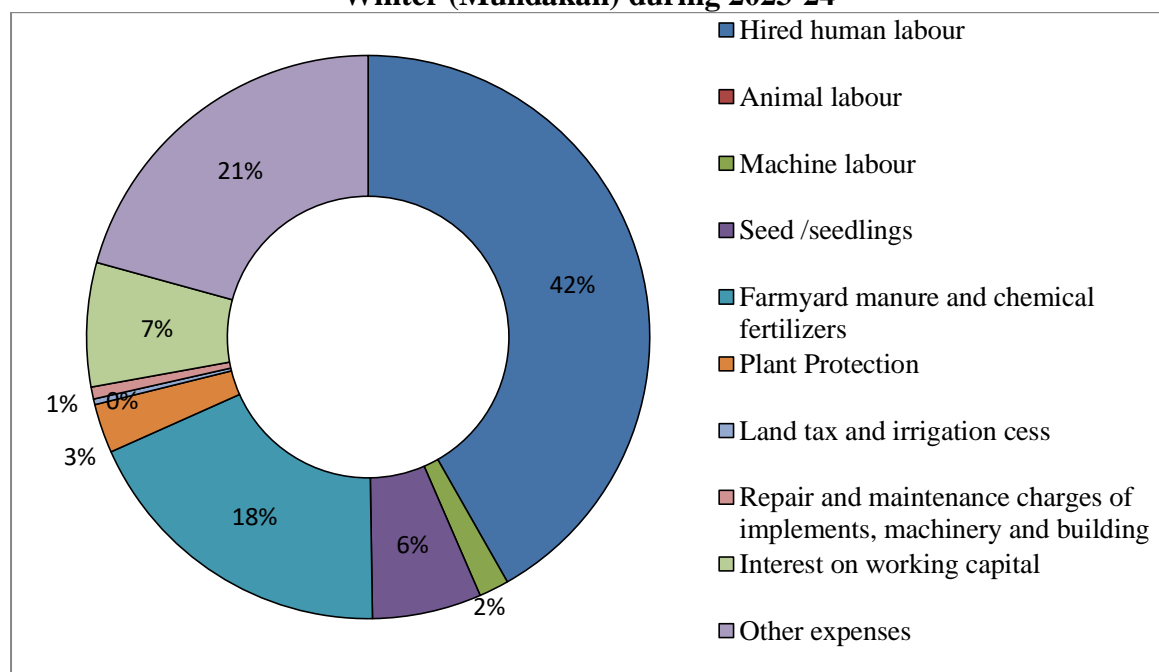


Table 2.15.2.3: Percentage of hired human labour hours to total labour hours of Snake Gourd -Winter (Mundakan) during 2023 - 24

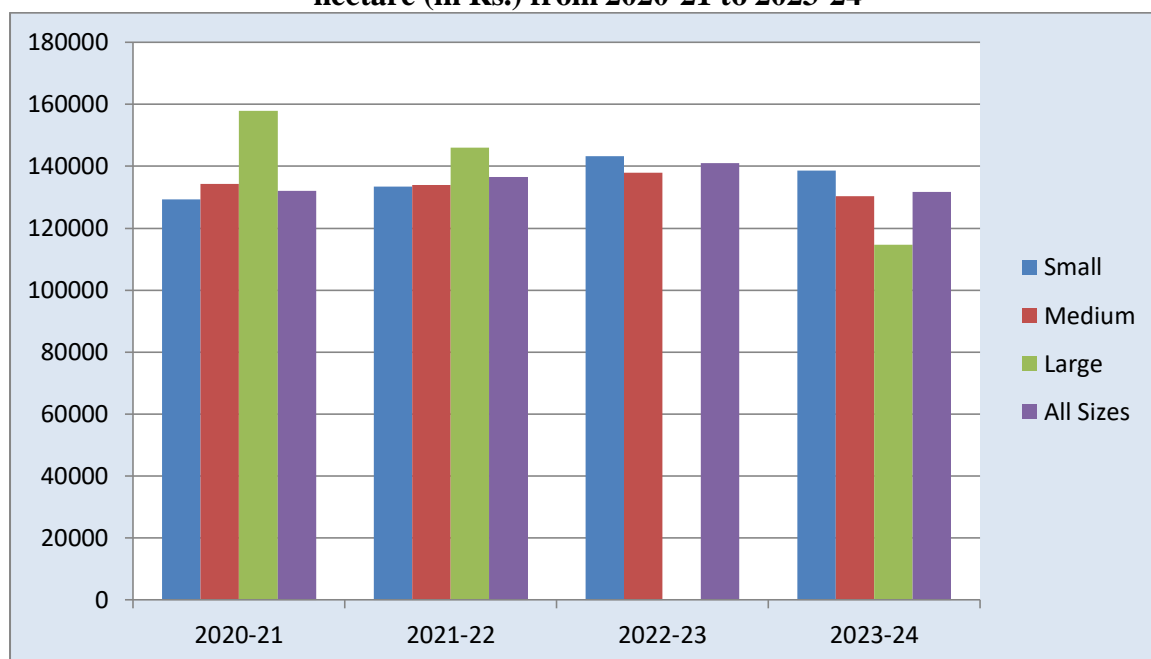
Sex	Holding Size Class			
	Small	Medium	Large	All Sizes
Male	28.60	37.64	31.75	33.33
Female	3.85	22.87	43.79	15.03
Total	32.45	60.51	75.54	48.36

Here the total labour is the sum of hired human labour and household human labour.

Table 2.15.2.4: Cost of cultivation of Snake Gourd -Winter (Mundakan) per hectare (in Rs.) from 2020 -21 to 2023-24

Holding size class	Cost A(Rs.)			
	2020-21	2021-22	2022-23	2023-24
Small	129319	133379	143170	138562
Medium	134311	134027	137967	130256
Large	157873	145959	-	114585
All Sizes	132010	136578	141033	131778

Figure 2.15.2.2: Cost of cultivation of Snake Gourd -Winter (Mundakan) per hectare (in Rs.) from 2020-21 to 2023-24



2.15.2.3 Value of output

Details of product and by product for the year 2023-24 are given below.

Table 2.15.2.5: Value of output during the year 2023-24

Year	Holding size class	Product/Byproduct (in Rs.)
2023 - 24	Small	375380
	Medium	324900
	Large	292277
	All Sizes	341877

Table 2.15.2.6: Input cost, output cost and Input-output ratio of Snake Gourd - Winter (Mundakan) per hectare (in Rs.) from 2020 -21 to 2023-24

Year	Components		
	Input Cost(Rs.)	Output Cost(Rs.)	Input-output ratio
2020-21	132010	341542	2.59
2021-22	136578	334716	2.45
2022-23	141033	359336	2.55
2023-24	131778	341877	2.59

Figure 2.15.2.3: Input cost, output cost and Input-output ratio of Snake Gourd - Winter (Mundakan) per hectare (in Rs.) from 2020 -21 to 2023-24

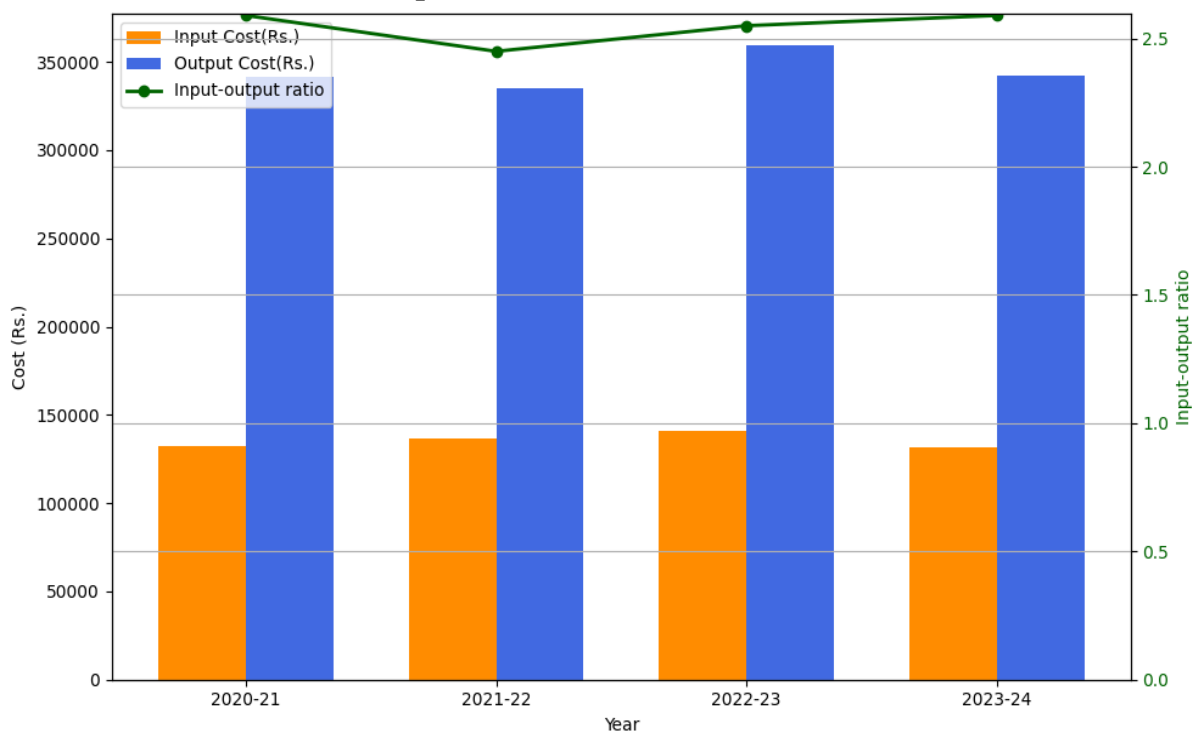
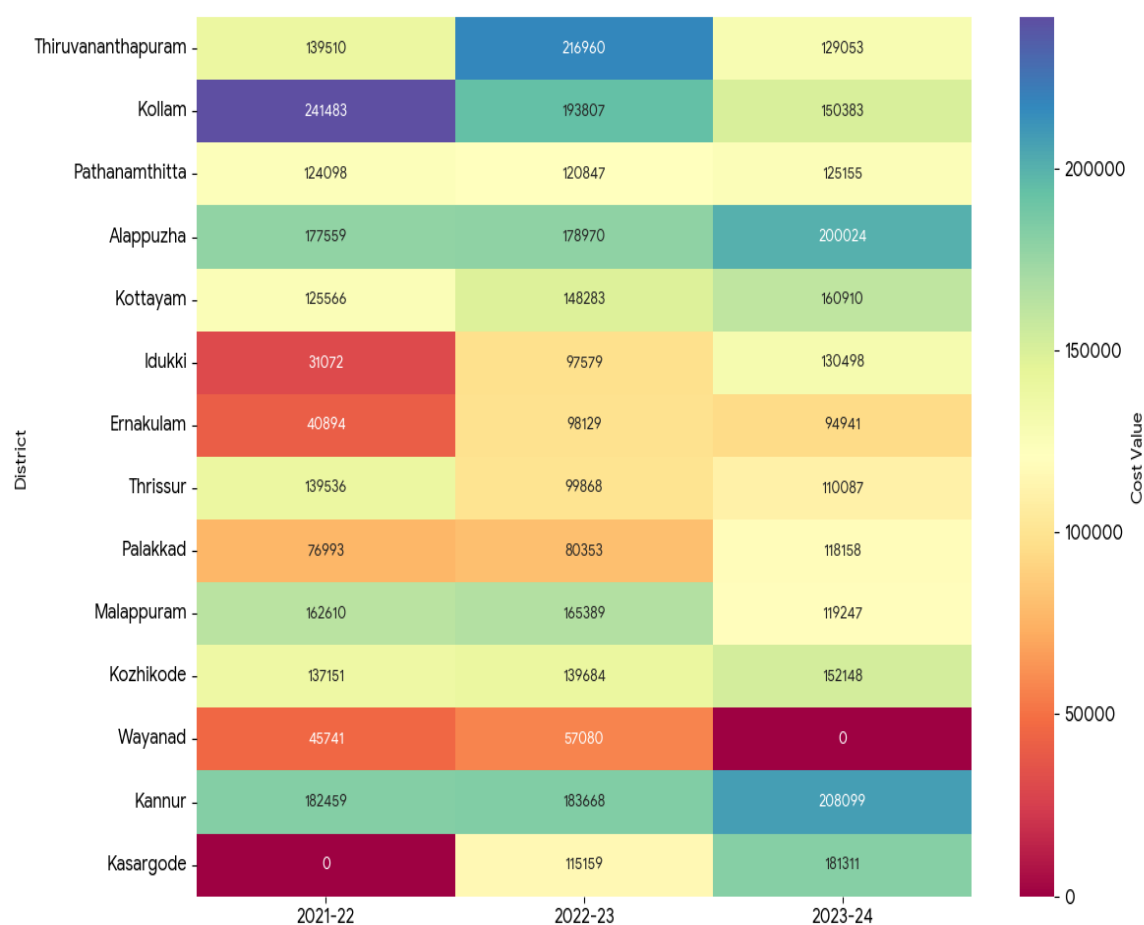


Table 2.15.2.7: Districtwise cost of cultivation (in Rs) per hectare of Snake Gourd – Winter (Mundakan) cultivation from 2021-22 to 2023-24

District	2021-22	2022-23	2023-24
Thiruvananthapuram	139510	216960	129053
Kollam	241483	193807	150383
Pathanamthitta	124098	120847	125155
Alappuzha	177559	178970	200024
Kottayam	125566	148283	160910
Idukki	31072	97579	130498
Ernakulam	40894	98129	94941
Thrissur	139536	99868	110087
Palakkad	76993	80353	118158
Malappuram	162610	165389	119247
Kozhikode	137151	139684	152148
Wayanad	45741	57080	0
Kannur	182459	183668	208099
Kasargod	0	115159	181311

Figure 2.15.2.4: Districtwise cost of cultivation (in Rs) per hectare of Snake Gourd - Winter (Mundakan) cultivation from 2021-22 to 2023-24



2.15.3.1 Area under Snake Gourd –Summer Cultivation (Puncha)

Details of holding selected and area coverage for this study are given below. The study on Snake Gourd -Summer (Puncha) covers a total of 217 holdings across an area of 19.77 hectares.

Table 2.15.3.1: Number of holdings and area under Snake Gourd –Summer (Puncha)

Holding size class	Sample size (No.s)	Area under the crop in the sample (ha)	Percentage Area	Average Area Per holding (ha)
Small	182	9.26	47	0.05
Medium	34	9.29	47	0.27
Large	1	1.22	6	1.21
Total	217	19.77	100	0.09

2.15.3.2 Cost of cultivation

The estimated cost of cultivation of different items per hectare of Snake Gourd –Summer (Puncha) is furnished in the below table.

Table 2.15.3.2: Cost of Cultivation per hectare (in Rs.) of Snake Gourd –Summer (Puncha)

Sl.No	Components	Holding Size Class			
		Small	Medium	Large	All Sizes
1	Hired human labour	53045	68850	70889	61407
2	Animal labour	0	0	0	0
3	Machine labour	609	1485	0	981
4	Seed /seedlings	7347	5029	4940	6124
5	Farmyard manure and chemical fertilizers	30053	24270	17743	26551
6	Plant Protection	2920	2546	7706	3030
7	Land tax and irrigation cess	335	226	0	262
8	Repair and maintenance charges of implements, machinery and building	2480	458	12	1378
9	Interest on working capital	9397	10218	10128	9809
10	Other expenses	36785	19798	29640	28414
11	Total cost 'A'(1-10)	142973	132882	141058	137957
12	Interest on fixed capital	13500	2755	93	7590
13	Cost 'B1'(11+12)	156473	135638	141152	145547
14	Interest on land value	580282	551353	1100000	596955
15	Cost 'B'(13+14)	736755	686991	1241152	742502
16	Inputed value of household labour	112783	73448	27145	89229
17	Cost 'C'(15+16))	849538	760439	1268297	831731

Figure 2.15.3.1: Percentage Distribution of Cost A per hectare of Snake Gourd – Summer (Puncha) during 2023-24

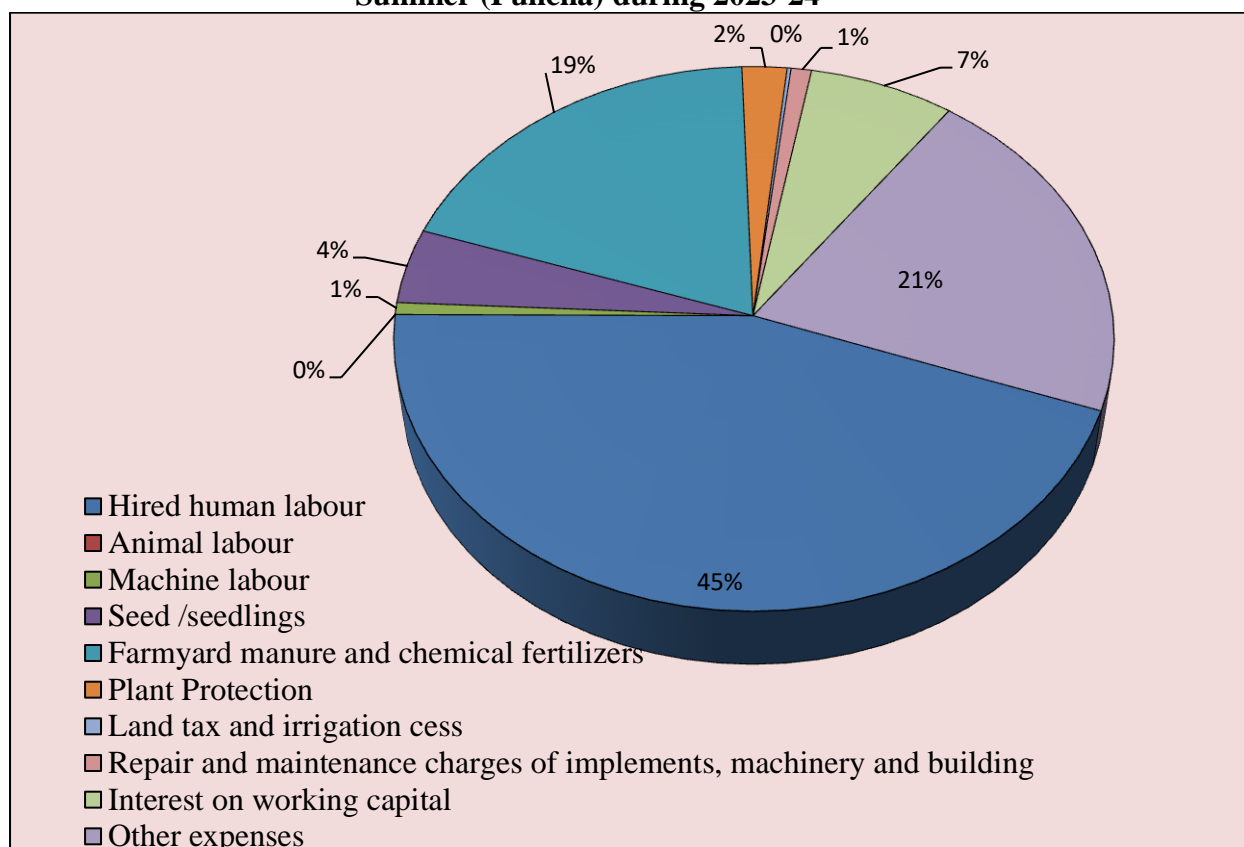


Table 2.15.3.3: Percentage of hired human labour hours to total labour hours of Snake Gourd –Summer (Puncha) during 2023-24

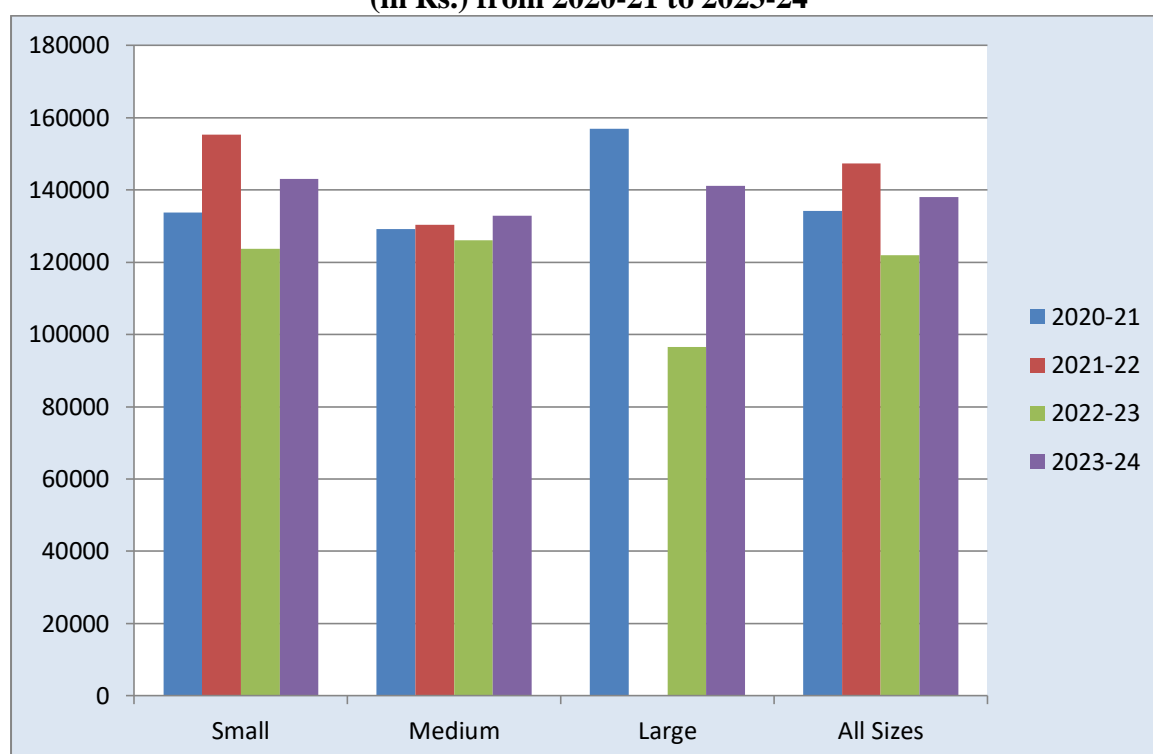
Sex	Holding Size Class			
	Small	Medium	Large	All Sizes
Male	30.62	46.34	72.31	39.35
Female	3.20	10.03	-	3.83
Total	33.82	56.37	72.31	43.18

Here the total labour is the sum of hired human labour and household human labour.

Table 2.15.3.4: Cost of cultivation of Snake Gourd –Summer (Puncha) per hectare (in Rs.) from 2020 -21 to 2023-24

Holding size class	Cost A(Rs.)			
	2020-21	2021-22	2022-23	2023-24
Small	133739	155249	123657	142973
Medium	129210	130319	126080	132882
Large	156849	-	96497	141058
All Sizes	134216	147236	121911	137957

Figure 2.15.3.2: Cost of cultivation of Snake Gourd –Summer (Puncha) per hectare (in Rs.) from 2020-21 to 2023-24



2.15.3.3 Value of output

Details of product and by product for the year 2023-24 are given below.

Table 2.15.3.5: Value of output during the year 2023-24

Year	Holding size class	Product/Byproduct (in Rs.)
2023 - 24	Small	375467
	Medium	303575
	Large	234675
	All Sizes	332735

Table 2.15.3.6: Input cost, output cost and Input-output ratio of Snake Gourd – Summer (Puncha) per hectare (in Rs.) from 2020 -21 to 2023-24

Year	Components		
	Input Cost(Rs.)	Output Cost(Rs.)	Input-output ratio
2020-21	134216	320393	2.39
2021-22	147236	300453	2.04
2022-23	121911	468760	3.85
2023-24	137957	332735	2.41

Figure 2.15.3.3: Input cost, output cost and Input-output ratio of Snake Gourd – Summer (Puncha) per hectare (in Rs.) from 2020 -21 to 2023-24

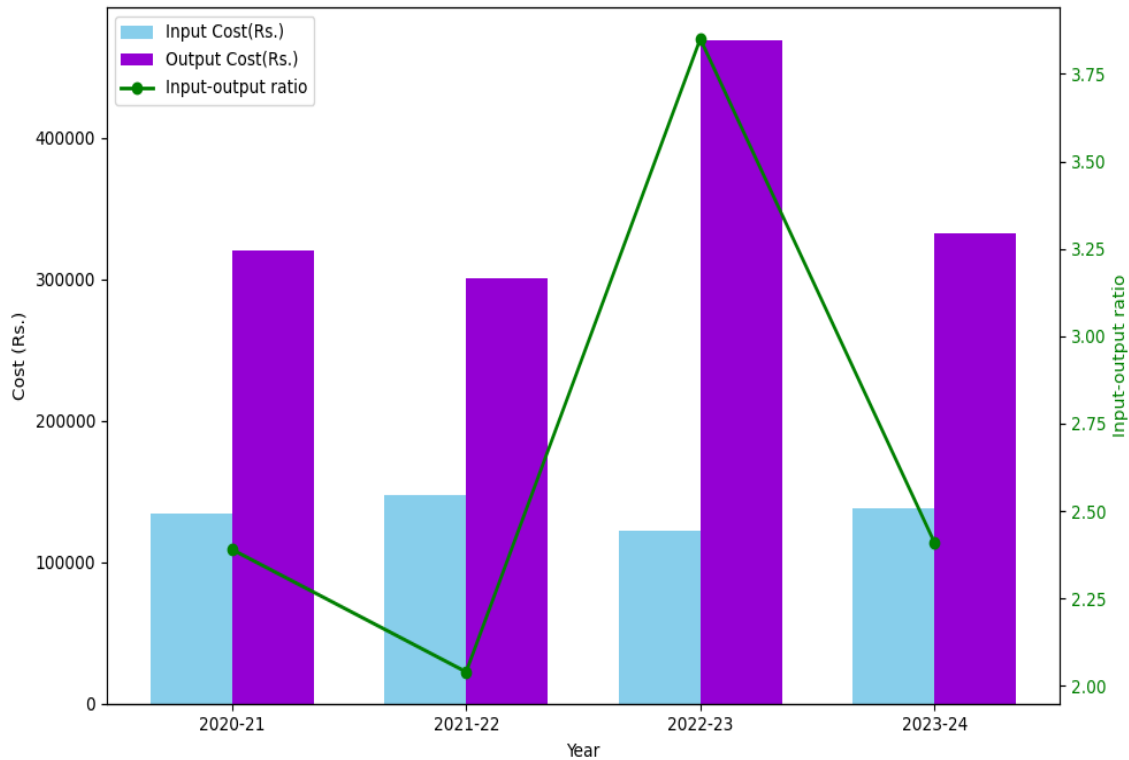
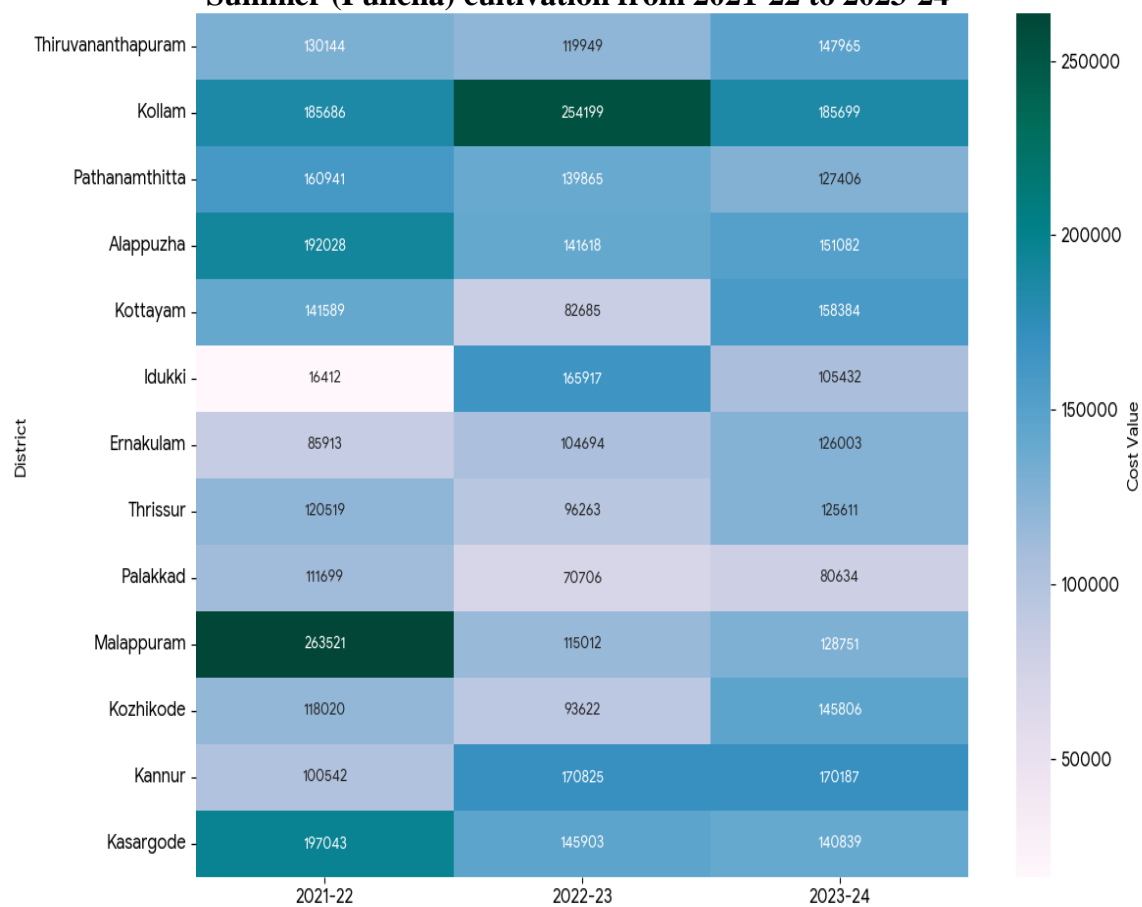


Table 2.15.3.7: Districtwise cost of cultivation (in Rs) per hectare of Snake Gourd – Summer (Puncha) cultivation from 2021-22 to 2023-24

District	2021-22	2022-23	2023-24
Thiruvananthapuram	130144	119949	147965
Kollam	185686	254199	185699
Pathanamthitta	160941	139865	127406
Alappuzha	192028	141618	151082
Kottayam	141589	82685	158384
Idukki	16412	165917	105432
Ernakulam	85913	104694	126003
Thrissur	120519	96263	125611
Palakkad	111699	70706	80634
Malappuram	263521	115012	128751
Kozhikode	118020	93622	145806
Kannur	100542	170825	170187
Kasargod	197043	145903	140839

Figure 2.15.3. 4: Districtwise cost of cultivation (in Rs) per hectare of Snake Gourd – Summer (Puncha) cultivation from 2021-22 to 2023-24



2.16.1 Ladies finger-Autumn (Virippu)**2.16.1.1 Area under Ladies finger-Autumn Cultivation**

As compared to previous years, total area of Ladies finger-Autumn during the period 2023-24 is 15.49 Ha which is higher as compared to 2022-23 which is 14.75Ha.

Table 2.16.1.1: Number of holdings and area under Ladies finger -Autumn

Holding Size class	No of selected Holdings	Area under the crop in the sample (ha)	Percentage Area	Average Area Per holding (ha)
Small	161	9.64	62	0.06
Medium	20	5.85	38	0.29
Large	-	-	-	-
Total	181	15.49	100	0.09

2.16.1.2 Cost of cultivation

The estimated cost of cultivation of different items per hectare of Ladies finger Autumn is furnished in the below table.

Table 2.16.1.2: Cost of Cultivation per hectare (in Rs.) of Ladies finger (Autumn)

Sl.No	Components	Holding Size Class			
		Small	Medium	Large	All Sizes
1	Hired human labour	52451	38290	-	46961
2	Animal labour	0	0	-	0
3	Machine labour	803	3297	-	1744
4	Seed /seedlings	6912	6280	-	6704
5	Farmyard manure and chemical fertilizers	32162	28681	-	30788
6	Plant Protection	4316	1524	-	3249
7	Land tax and irrigation cess	296	266	-	285
8	Repair and maintenance charges of implements, machinery and building	4052	604	-	2738

9	Interest on working capital	9665	7807	-	8945
10	Other expenses	23195	22377	-	22825
11	Total cost 'A'(1-10)	133852	109125	-	124238
12	Interest on fixed capital	33984	16946	-	27453
13	Cost 'B1'(11+12)	167837	126071	-	151691
14	Interest on land value	647679	692327	-	663510
15	Cost 'B'(13+14)	815515	818397	-	815201
16	Imputed value of household labour	84480	36612	-	66454
17	Cost 'C'(15+16)	899996	855009	-	881655

Table 2.16.1.1: Cost of Cultivation per hectare (in Rs.) of Ladies finger (Autumn)

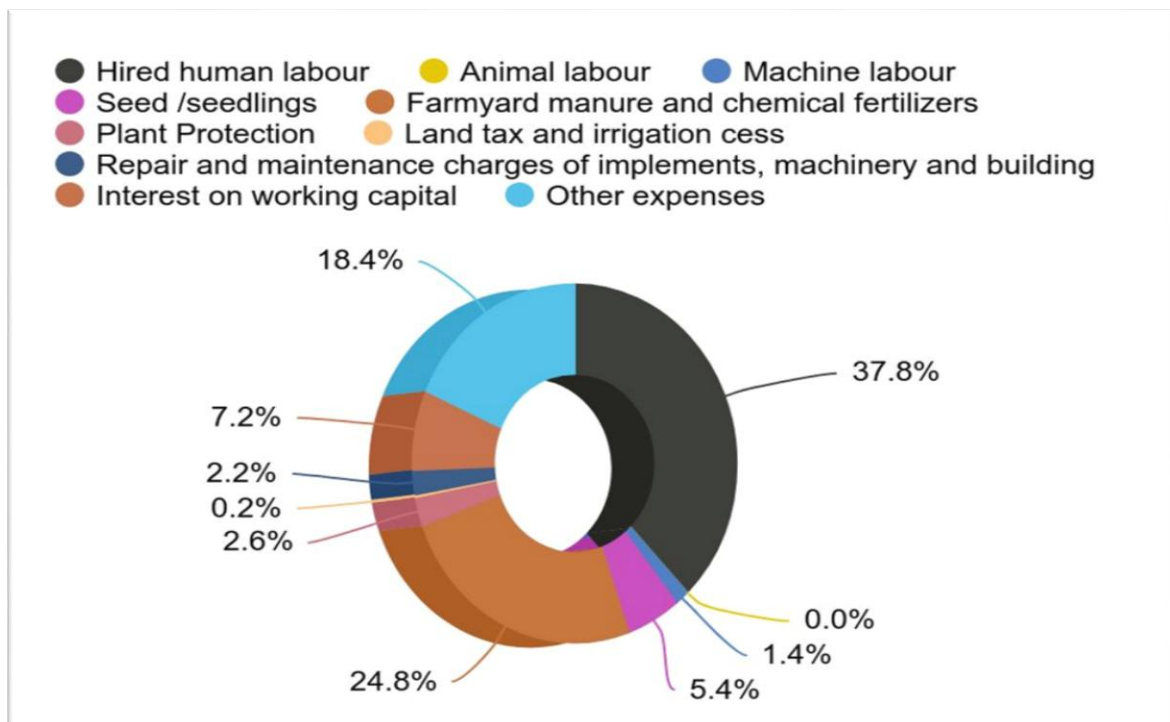


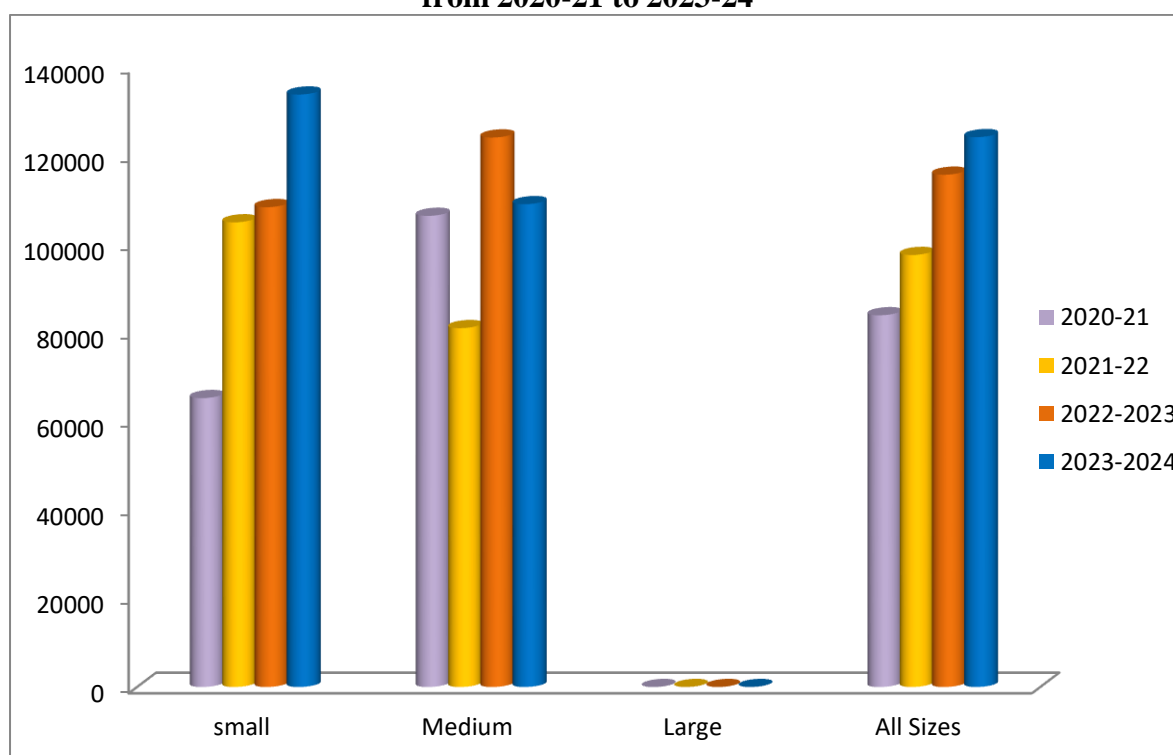
Table 2.16.1.3: Percentage of hired human labour hours to total labour hours of Ladies finger Autumn during 2023-24

Sex	Holding Size Class			
	Small	Medium	Large	All Sizes
Male	30.9	35.33	-	32.08
Female	12.12	22.9	-	12.22
Total	43.02	58.23	-	44.3

Table 2.16.1.4: Cost of cultivation of Autumn Ladies finger per hectare (in Rs.) from 2020 -21 to 2023-24

Holding size class	Cost A(Rs.)			
	2020-21	2021-22	2022-23	2023-24
Small	65408	105040	108456	133852
Medium	106497	81181	124161	109125
Large	-	-	-	-
All Sizes	84085	97680	115772	124238

Figure 2.16.1.2: Cost of cultivation of Ladies finger autumn per hectare (in Rs.) from 2020-21 to 2023-24



2.16.1.3 Value of output

Details of product and by product for the year 2023-24 is given below.

Table 2.16.1.5: Value of output during the year 2023-24

Year	Product/ Byproduct	Holding Size Class			
		Small	Medium	Large	All Sizes
2023-24	Product	334678	258223	-	305861

Table 2.16.1.6: Input cost, output cost and Input-output ratio of Ladies finger Autumn per hectare (in Rs.) from 2020-21 to 2023-24

Year	Components		
	Input Cost(Rs.)	Output Cost(Rs.)	Input-output ratio
2020-21	84085	196515	2.34
2021-22	97680	270683	2.77
2022-23	115772	272446	2.35
2023-24	124238	305861	2.46

Figure 2.16.1.3: Input cost, output cost and Input-output ratio of Ladies finger Autumn per hectare (in Rs.) from 2020-21 to 2023-24

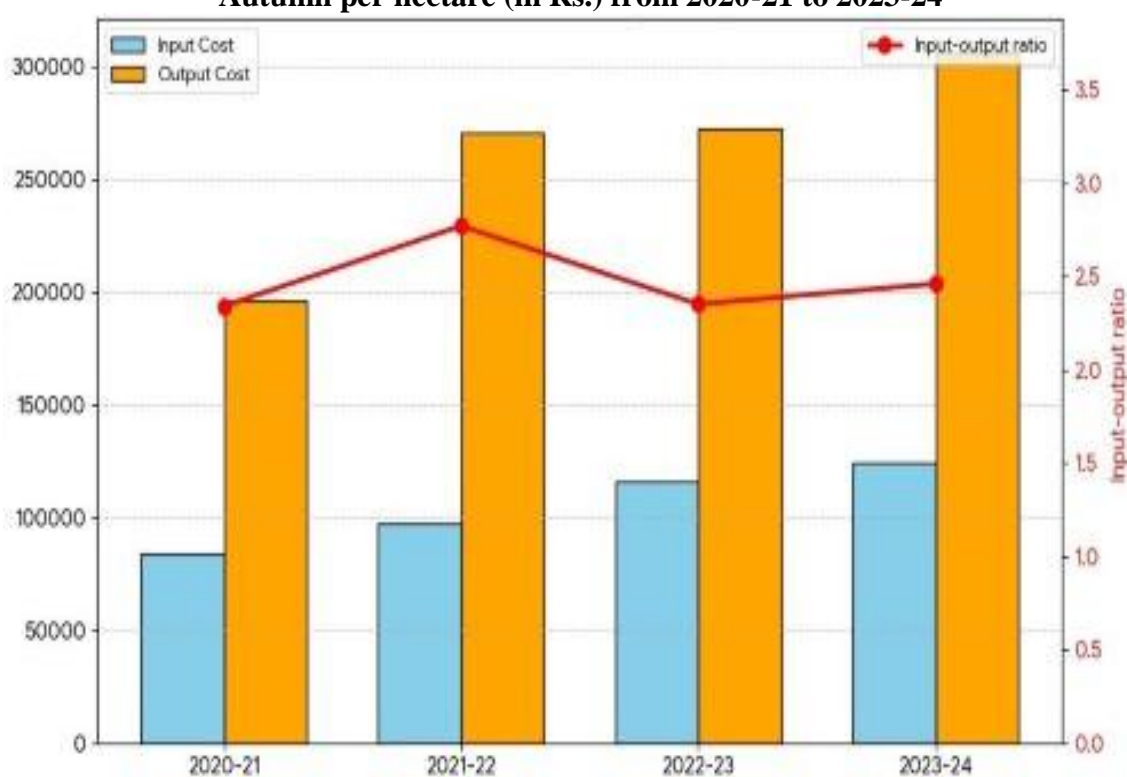
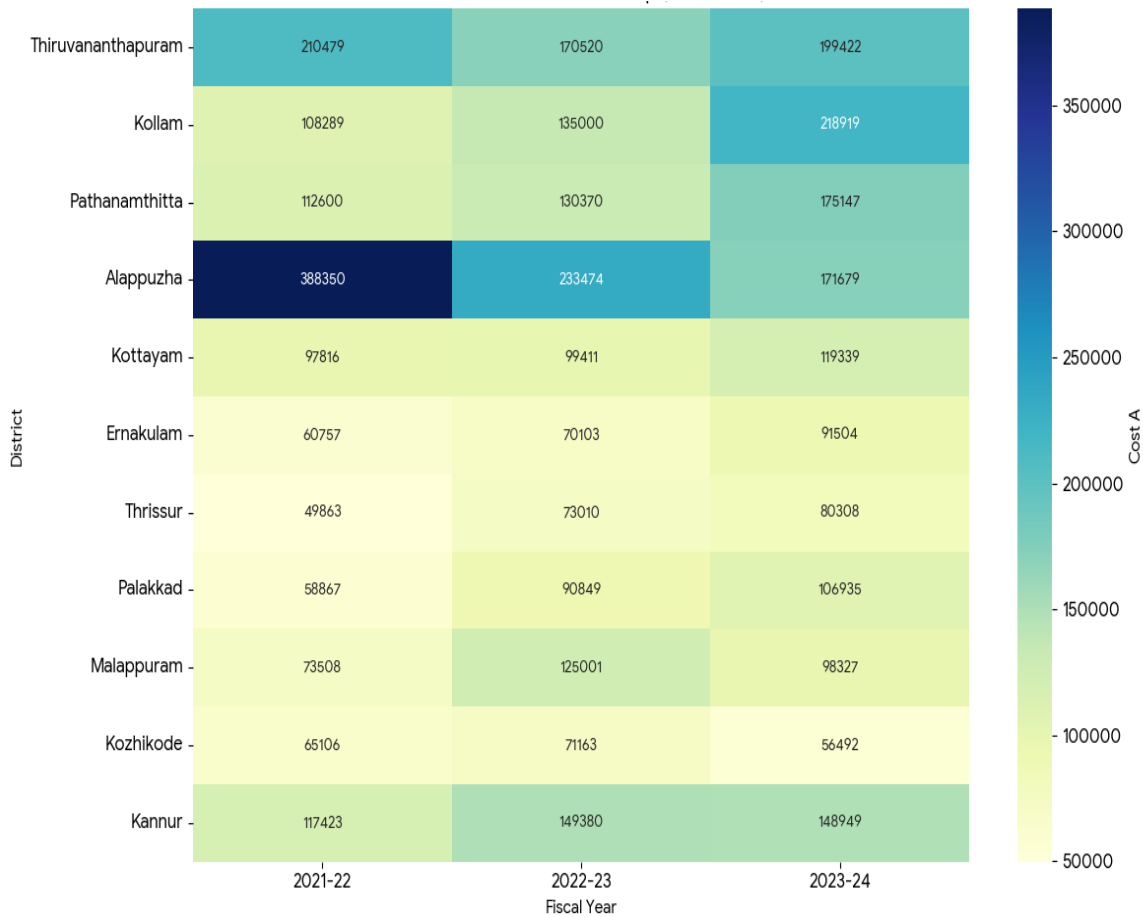


Table 2.16.1.7: Districtwise Cost of cultivation of Autumn Ladies finger per hectare (in Rs.) from 2021 -22 to 2023-24

District	Cost A		
	2021-22	2022-23	2023-24
Thiruvananthapuram	210479	170520	199422
Kollam	108289	135000	218919
Pathanamthitta	112600	130370	175147
Alappuzha	388350	233474	171679

Kottayam	97816	99411	119339
Ernakulam	60757	70103	91504
Thrissur	49863	73010	80308
Palakkad	58867	90849	106935
Malappuram	73508	125001	98327
Kozhikode	65106	71163	56492
Kannur	117423	149380	148949

Figure 2.16.1.4: Districtwise Cost of cultivation of Autumn Ladies finger per hectare (in Rs.) from 2021 -22 to 2023-24



2.16.2 Ladies finger -Winter (Mundakan)

2.16.2.1 Area under Ladies finger -Winter Cultivation

As compared to previous years, total area of Ladies finger(Mundakan) during the period 2023-24 is 17.98 Ha which is higher as compared to 2022-23 which is 11.22Ha.

Table 2.16.2.1: Number of holdings and area under Ladies finger- Winter

Holding size class	No of selected Holdings	Area under the crop in the sample (ha)	Percentage Area	Average Area Per holding (ha)
Small	167	10.39	58	0.06
Medium	26	7.59	42	0.29
Large	-	-	-	-
Total	193	17.98	100	0.09

2.16.2.2 Cost of cultivation

The estimated cost of cultivation of different items per hectare of Ladies finger Winter is furnished in the below table.

Table 2.16.2.2: Cost of Cultivation per hectare (in Rs.) of Ladies finger Winter

Sl.No	Components	Holding Size Class			
		Small	Medium	Large	All Sizes
1	Hired human labour	37843	43467	-	40279
2	Animal labour	0	0	-	0
3	Machine labour	2737	6290	-	4231
4	Seed /seedlings	6654	5856	-	6305
5	Farmyard manure and chemical fertilizers	35306	30332	-	33148
6	Plant Protection	3300	2833	-	3098
7	Land tax and irrigation cess	797	329	-	598
8	Repair and maintenance charges of implements, machinery and building	1365	214	-	876
9	Interest on working capital	8584	8878	-	8706
10	Other expenses	15715	18107	-	16815
11	Total cost 'A'(1-10)	112301	116305	-	114056
12	Interest on fixed capital	27905	18930	-	24112
13	Cost 'B1'(11+12)	140206	135236	-	138168
14	Interest on land value	803620	349976	-	614397
15	Cost 'B'(13+14)	943826	485212	-	752564

16	Inputed value of household labour	104846	25926	-	71393
17	Cost 'C'(15+16))	1048672	511139	-	823958

Figure 2.16.2.1: Cost of Cultivation per hectare (in Rs.) of Ladies finger Winter

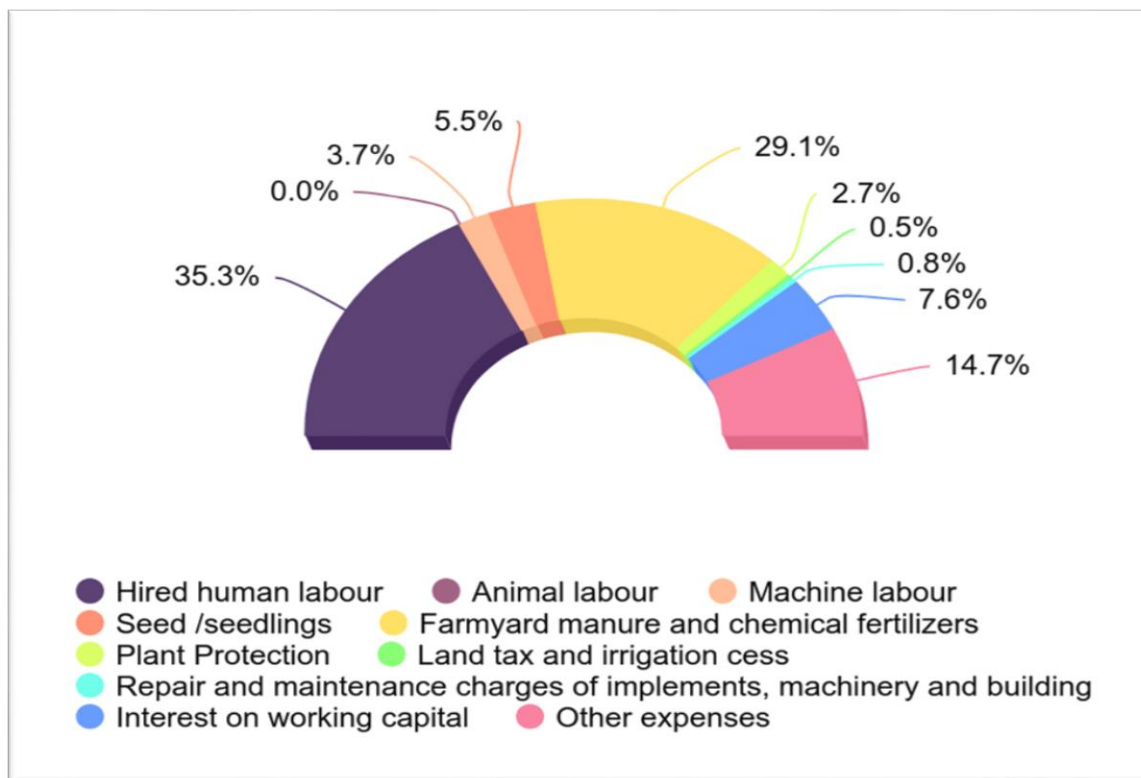


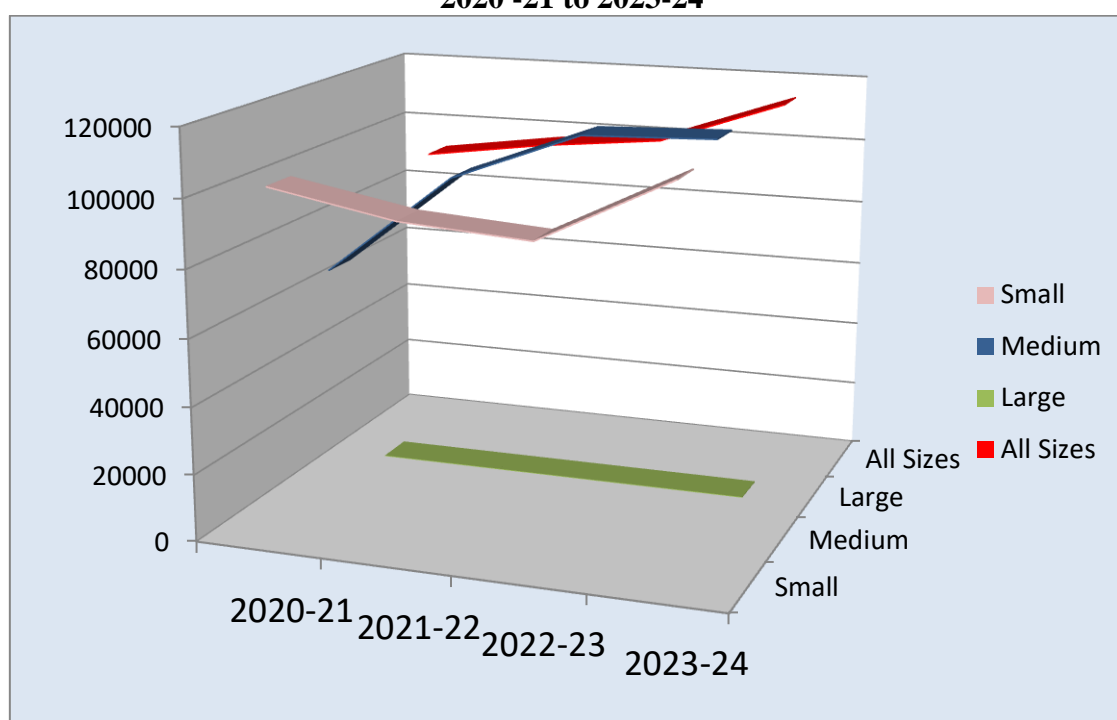
Table 2.16.2.3: Percentage of hired human labour hours to total labour hours of Ladies finger Winter during 2023-24

Sex	Holding Size Class			
	Small	Medium	Large	All Sizes
Male	22.5	32.33	-	25.8
Female	7.91	34.76	-	16.28
Total	30.41	67.09	-	42.08

Table 2.16.2.4: Cost of cultivation of Ladies finger winter per hectare (in Rs) from 2020-21 to 2023-24

Holding size class	Cost A (In Rs.)			
	2020-21	2021-22	2022-23	2023-24
Small	102482	95536	93032	112301
Medium	69968	100366	115041	116305
Large	-	-	-	-
All Sizes	91403	96742	100577	114056

Figure 2.16.2.2: Cost of cultivation of Ladies finger Winter per hectare (in Rs.) from 2020 -21 to 2023-24



2.16.2.3 Value of output

Details of product and by product for the year 2023-24 is given below.

Table 2.16.2.5: Value of output during the year 2023-24

Year	Holding size class	Product (Cost in Rs.)
2023-24	Small	346466
	Medium	281309
	Large	-
	All sizes	318580

Table 2.16.2.6. Input cost. Output cost and Input-output ratio of Ladies finger - Winter per hectare (in Rs.) from 2020-21 to 2023-24

Year	Components		
	Input Cost	Output Cost	Input-output ratio
2020-21	91403	289947	3.17
2021-22	96742	309132	3.20
2022-23	100577	306208	3.04
2023-24	114056	318580	2.79

Figure 2.16.2.3: Input cost, output cost and Input-output ratio of Ladies finger winter per hectare (in Rs.) from 2020-21 to 2023-24

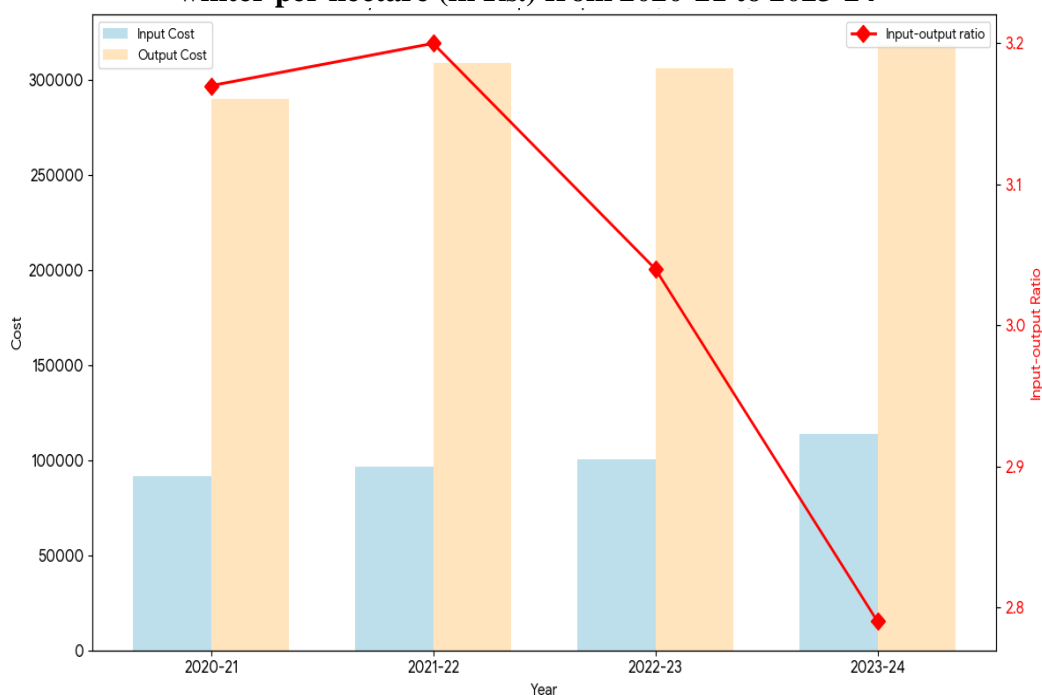


Table 2.16.2.7: Districtwise Cost of cultivation of Ladies finger winter per hectare (in Rs) from 2021-22 to 2023-24

District	Cost A		
	2021-22	2022-23	2023-24
Thiruvananthapuram	161471	123218	141349
Kollam	77848	167992	236352
Pathanamthitta	158937	117398	137264
Alappuzha	155441	177814	137155
Kottayam	87345	90146	108904
Idukki	0	0	107502
Ernakulam	53027	68232	115917
Thrissur	69570	64791	96584
Palakkad	86310	90048	98220
Malappuram	74201	86947	106729
Kozhikode	78263	103309	75697
Wayanad	79503	0	0
Kannur	108804	97319	115441
Kasargod	103911	138520	138793

Figure 2.16.2.4: Districtwise Cost of cultivation of Ladies finger winter per hectare (in Rs) from 2021-22 to 2023-24



2.16.3 Ladies finger-Summer(Puncha)

2.16.3.1 Area under Ladies finger-Summer Cultivation

As compared to previous years, total area of Ladies finger(Puncha) during the period 2023-24 is 13.2Ha which is higher as compared to 2022-23 which is 10.11Ha.

Table 2.16.3.1: Number of holdings and area under Ladies finger- Summer

Holding size class	No of selected Holdings	Area under the crop in the sample (ha)	Percentage Area	Average Area Per holding (ha)
Small	168	8.38	63	0.05
Medium	18	4.82	37	0.27
Large	-	-	-	-
Total	186	13.2	100	0.07

2.16.3.2 Cost of cultivation

The estimated cost of cultivation of different items per hectare of **Ladies finger Summer** is furnished in the below table.

Table 2.16.3.2: Cost of Cultivation per hectare (in Rs.) of Ladies finger (Summer)

Sl.No	Components	Holding Size Class			
		Small	Medium	Large	All Sizes
1	Hired human labour	39613	42163	-	40544
2	Animal labour	0	0	-	0
3	Machine labour	2565	4598	-	3307
4	Seed /seedlings	6596	6575	-	6588
5	Farmyard manure and chemical fertilizers	38661	39074	-	38812
6	Plant Protection	2549	2543	-	2547
7	Land tax and irrigation cess	376	129	-	286
8	Repair and maintenance charges of implements, machinery and building	1739	355	-	1233
9	Interest on working capital	8999	9495	-	9180
10	Other expenses	19787	15603	-	18260
11	Total cost 'A'(1-10)	120886	120534	-	120757
12	Interest on fixed capital	34193	9513	-	25181
13	Cost 'B1'(11+12)	155078	130047	-	145938
14	Interest on land value	742635	458295	-	638842
15	Cost 'B'(13+14)	897713	588342	-	784780
16	Inputed value of household labour	110724	34121	-	82761
17	Cost 'C'(15+16))	1008436	622463	-	867541

Figure 2.16.3.1: Cost of Cultivation per hectare (in Rs.) of Ladies finger(Summer)

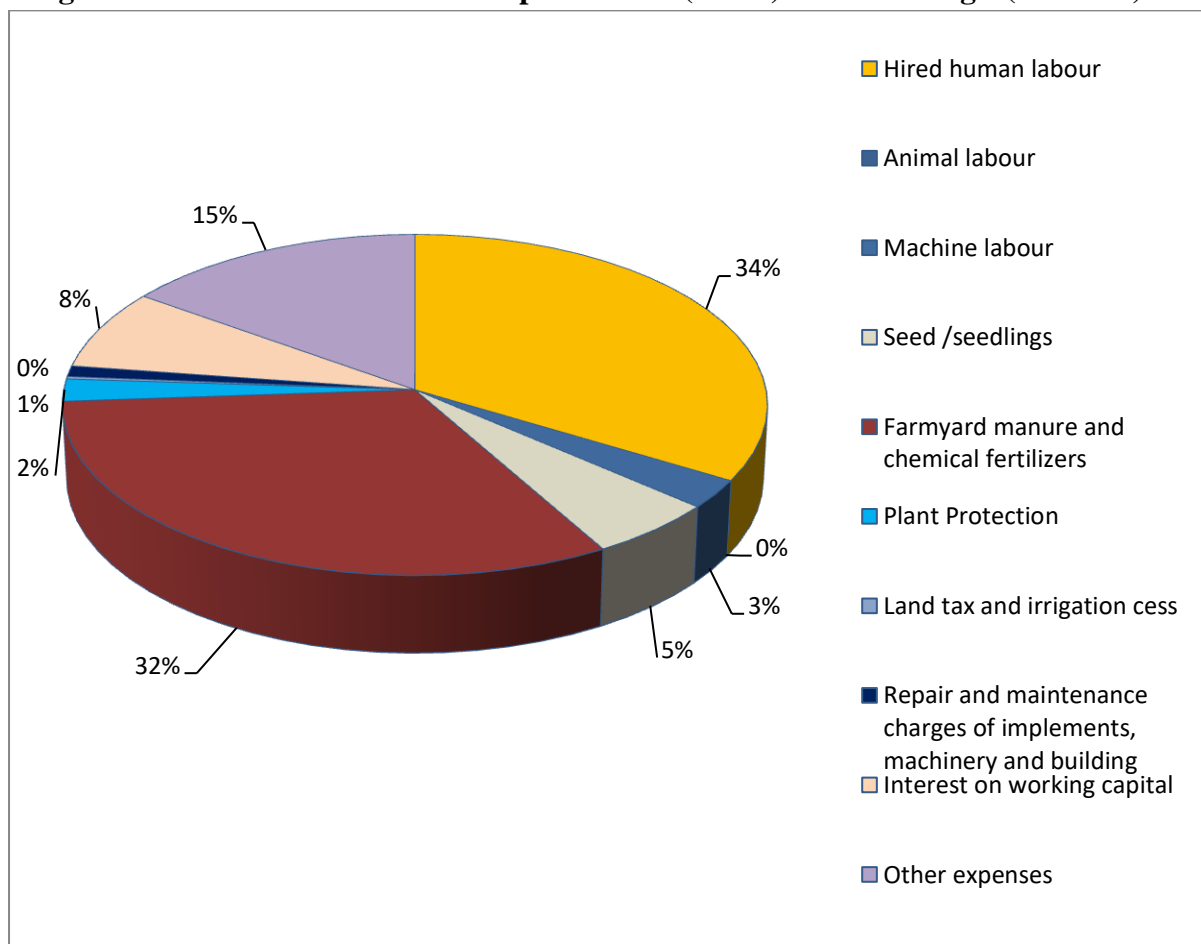


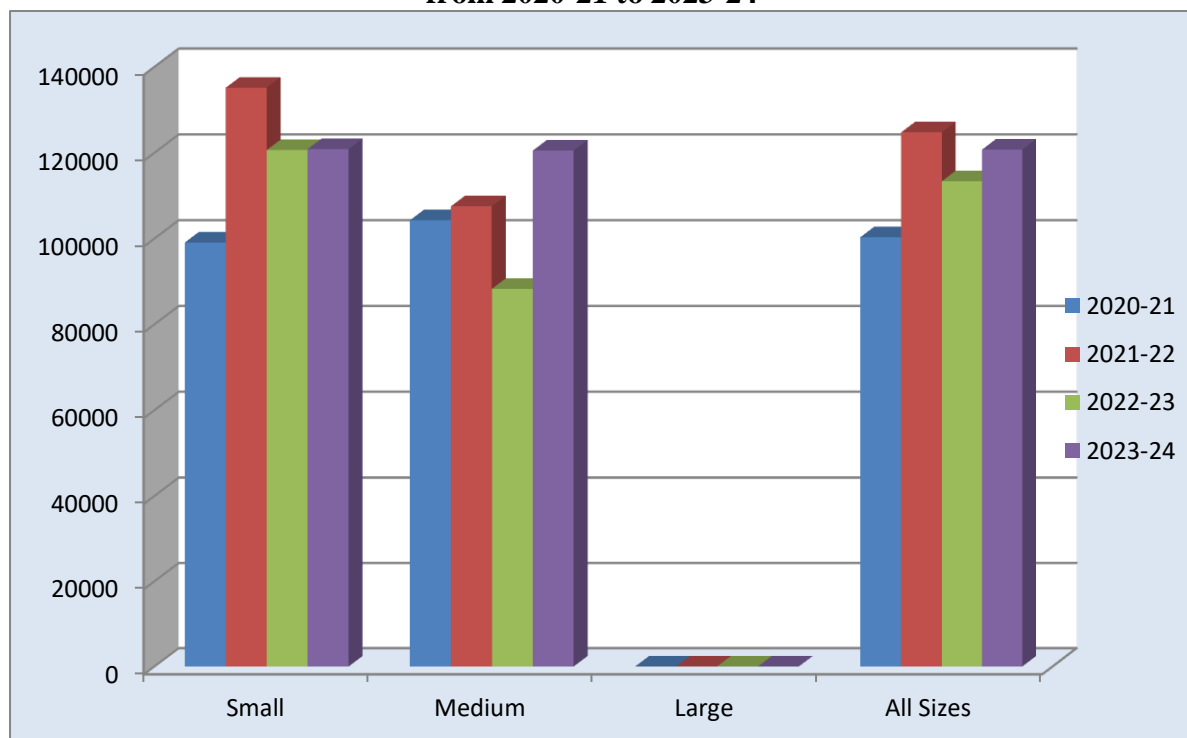
Table 2.16.3.3: Percentage of hired human labour hours to total labour hours of Ladies finger Summer during 2023 – 2024

Sex	Holding Size Class			
	Small	Medium	Large	All Sizes
Male	23.64	44.85	-	28.90
Female	4.51	21.94	-	6.56
Total	28.15	66.79	-	35.45

Table 2.16.3.4: Cost of cultivation of Ladies finger Summer per hectare (in Rs.) from 2020-21 to 2023-24

Holding size class	Cost A (In Rs.)			
	2020-21	2021-22	2022-23	2023-24
Small	99113	135188	120654	120886
Medium	104292	107544	88298	120534
Large	-	-	-	-
All Sizes	100322	124787	113397	120757

Figure 2.16.3.2: Cost of cultivation of Ladies finger Summer per hectare (in Rs.) from 2020-21 to 2023-24



2.16.3.3 Value of output

Details of product and by product for the year 2023-24 is given below.

Table 2.16.3.5: Value of output during the year 2023-24

Holding size class	Product (in Rs.)
Small	347900
Medium	270940
Large	-
All Sizes	319807

Table 2.16.3.6: Input cost, output cost and Input -output ratio of Ladies finger Summer per hectare (in Rs.) from 2020-21 to 2023-24

Year	Components		
	Input Cost	Output Cost	Input-output ratio
2020-21	100322	328133	3.27
2021-22	124787	305643	2.45
2022-23	113397	309081	2.73
2023-24	120757	319807	2.65

Figure 2.16.3.3: Input cost, output cost and Input-output ratio of Ladies finger Summer per hectare (in Rs.) from 2020-21 to 2023-24

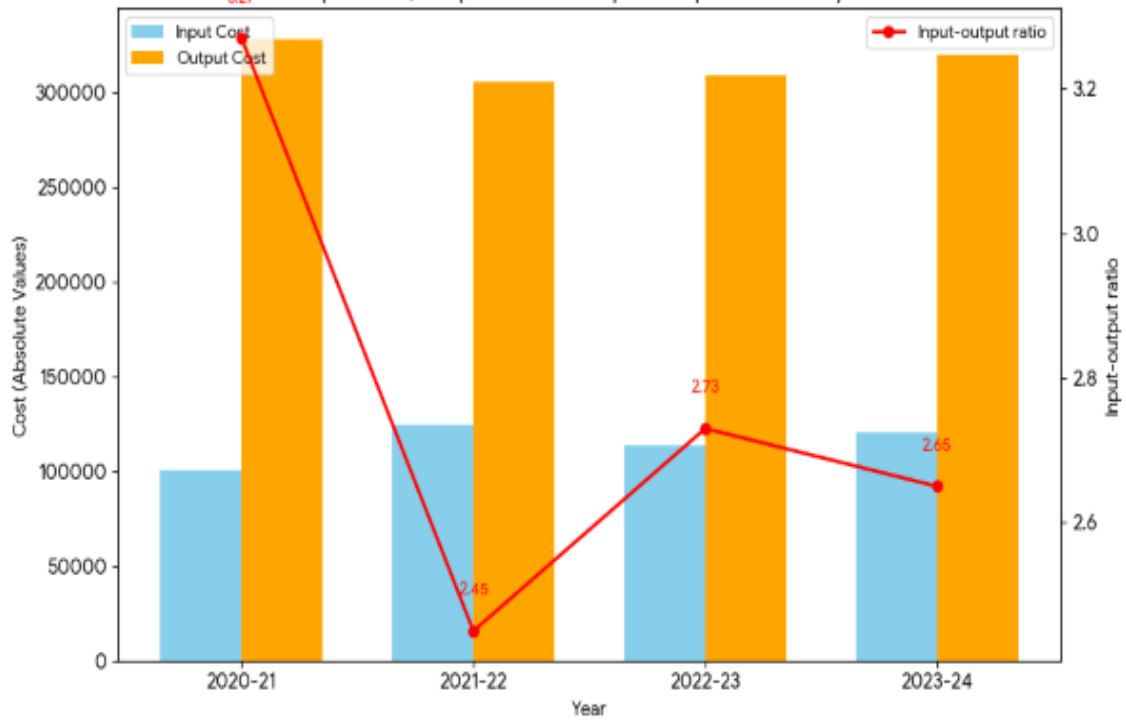
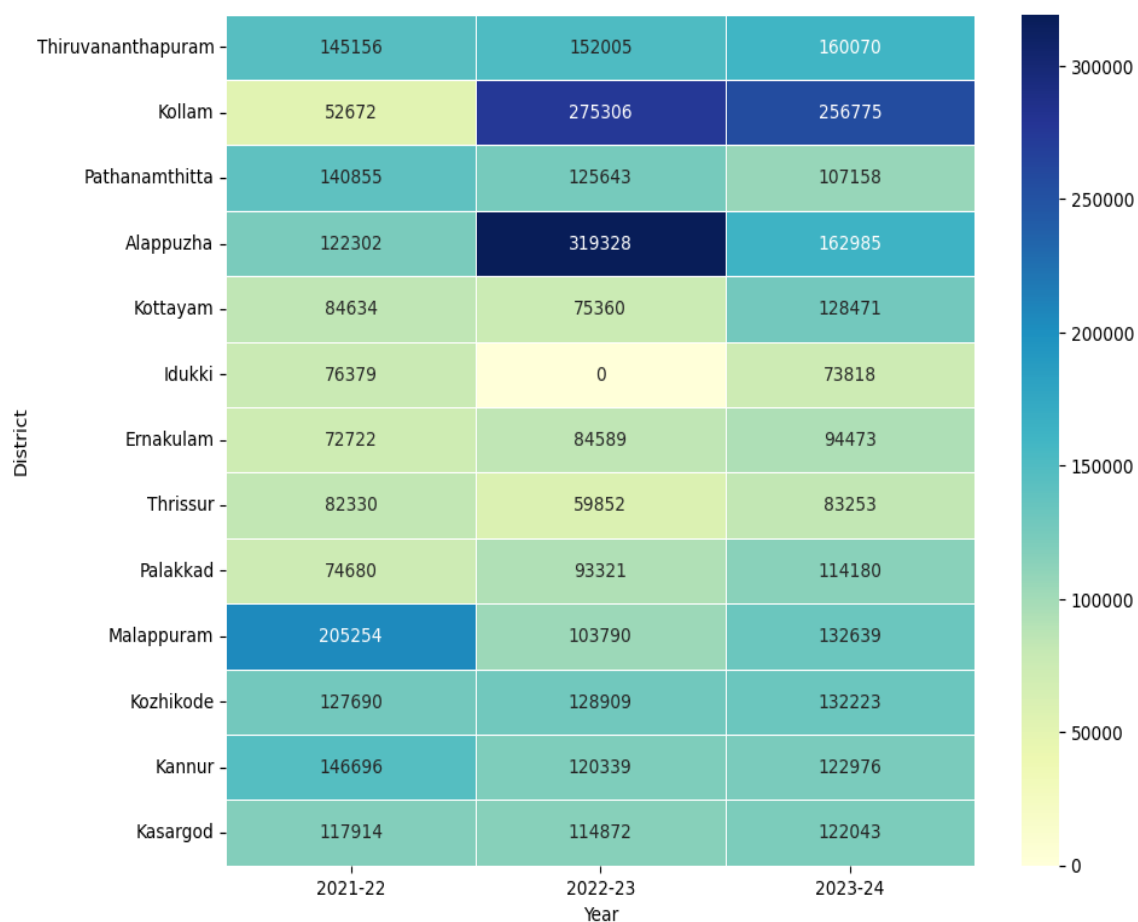


Table 2.16.3.7: Districtwise Cost of cultivation of Ladies finger Summer per hectare (in Rs.) from 2021-22 to 2023-24

District	Cost A		
	2021-22	2022-23	2023-24
Thiruvananthapuram	145156	152005	160070
Kollam	52672	275306	256775
Pathanamthitta	140855	125643	107158
Alappuzha	122302	319328	162985
Kottayam	84634	75360	128471
Idukki	76379	0	73818
Ernakulam	72722	84589	94473
Thrissur	82330	59852	83253
Palakkad	74680	93321	114180
Malappuram	205254	103790	132639
Kozhikode	127690	128909	132223
Kannur	146696	120339	122976
Kasargod	117914	114872	122043

Figure 2.16.3.4: Districtwise Cost of cultivation of Ladies finger Summer per hectare (in Rs.) from 2021-22 to 2023-24



2.17.1 Cabbage-Winter (Mundakan)**2.17.1 Area under Cabbage-Winter Cultivation**

As compared to previous years, total area of Cabbage-Winter during the period 2023-24 is 0.16 Ha which is lower as compared to 2021-22 which is 1.77Ha.

Table 2.17.1: Number of holdings and area under Cabbage(Winter)

Holding size class	No of selected Holdings	Area under the crop in the sample (ha)	Percentage Area	Average Area Per holding (ha)
Small	3	0.16	100	0.05
Medium	-	-	-	-
Large	-	-	-	-
Total	3	0.16	100	0.05

2.17.2 Cost of cultivation

The estimated cost of cultivation of different items per hectare of Cabbage(Winter) is furnished in the below table.

Table 2.17.2: Cost of Cultivation per hectare (in Rs.) of Cabbage(Winter)

Sl.No	Components	Holding Size Class			
		Small	Medium	Large	All sizes
1	Hired human labour	111706	-	-	111706
2	Animal labour	0	-	-	0
3	Machine labour	0	-	-	0
4	Seed /seedlings	22477	-	-	22477
5	Farmyard manure and chemical fertilizers	2237	-	-	2237
6	Plant Protection	849	-	-	849
7	Land tax and irrigation cess	0	-	-	0
8	Repair and maintenance charges of implements, machinery and building	0	-	-	0
9	Interest on working capital	13727	-	-	13727
10	Other expenses	0	-	-	0

11	Total cost 'A'(1-10)	150996	-	-	150996
12	Interest on fixed capital	1476	-	-	1476
13	Cost 'B1'(11+12)	152471	-	-	152471
14	Interest on land value	206909	-	-	206909
15	Cost 'B'(13+14)	359381	-	-	359381
16	Imputed value of household labour	4631	-	-	4631
17	Cost 'C'(15+16))	364012	-	-	364012

Fig 2.17.3: Cost of Cultivation per hectare (in Rs.) of Cabbage(Winter)

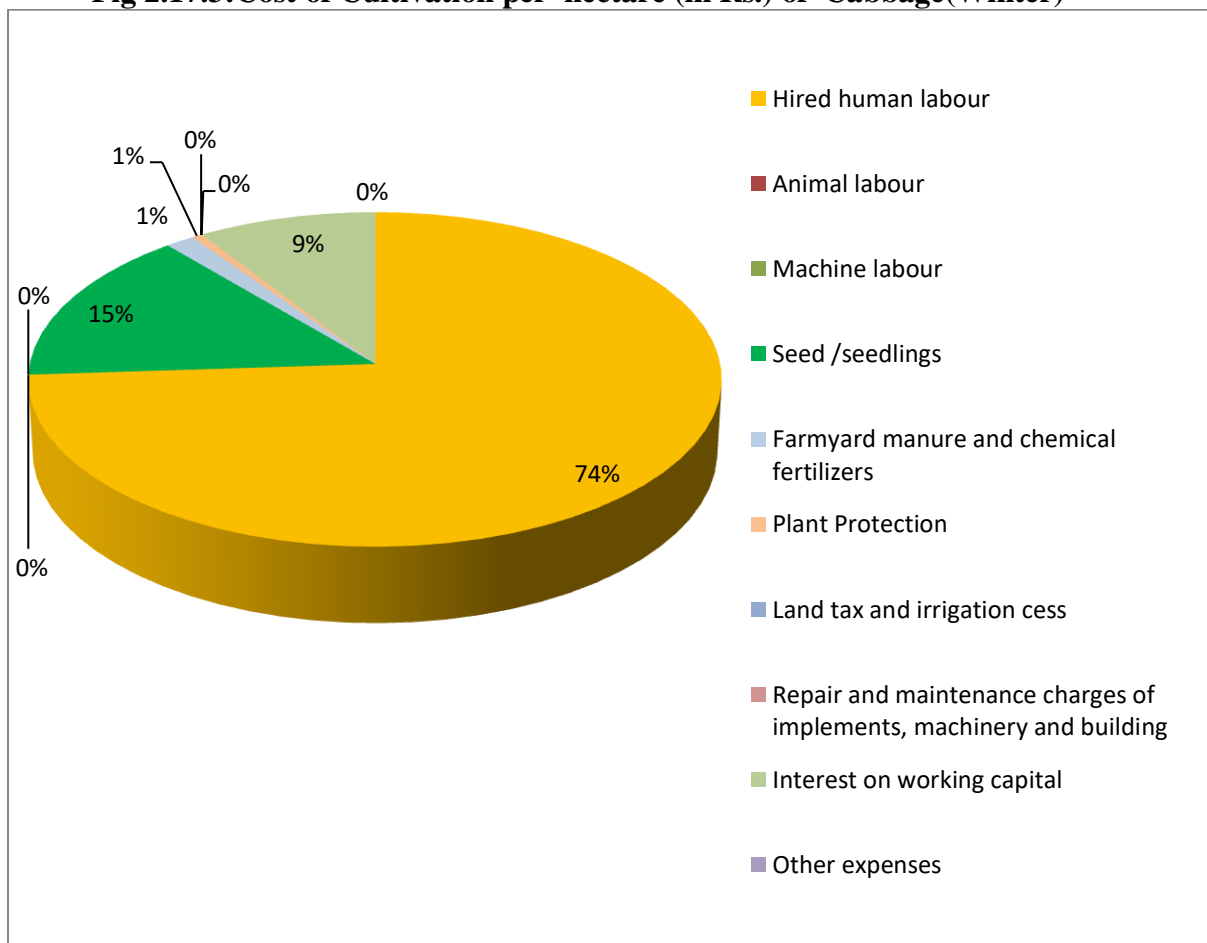


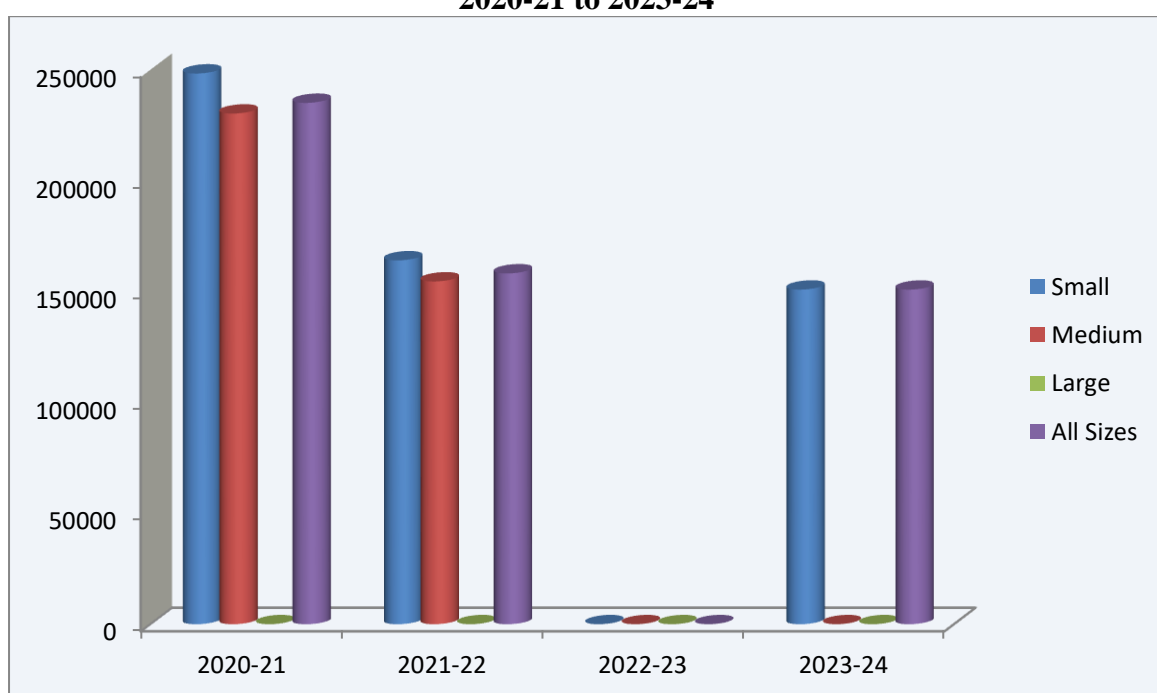
Table 2.17.3: Percentage of hired human labour hours to total labour hours of Cabbage(Winter) during 2023 – 2024

Sex	Holding Size Class			
	Small	Medium	Large	All Sizes
Male	57.81	-	-	57.81
Female	47.37	-	-	47.37
Total	105.18	-	-	105.18

Table 2.17.4: Cost of cultivation of Cabbage(Winter) per hectare (in Rs.) from 2020-21 to 2023-24

Holding size class	Cost A (Rs.)			
	2020-21	2021-22	2022-23	2023-24
Small	248449	164198	-	150996
Medium	230397	154690	-	0
Large	-	-	-	-
All Sizes	235211	158310	-	150996

Figure 2.17.2: Cost of cultivation of Cabbage (Winter)per hectare (in Rs.) from 2020-21 to 2023-24



2.17.3 Value of output

Details of product and by product for the year 2023-24 is given below.

Table 2.17.5: Value of output during the year 2023-24

Year	Holding size class	Product/Byproduct (in Rs.)
2023-24	Small	307824
	Medium	-
	Large	-
	All Sizes	307824

Table 2.17.6: Input cost, output cost and Input-output ratio of Cabbage(Winter) per hectare (in Rs.) from 2020 -21 to 2023-24

Year	Components		
	Input Cost(Rs.)	Output Cost(Rs.)	Input-output ratio
2020-21	235211	280177	1.19
2021-22	158310	283379	1.79
2022-23	-	-	-
2023-24	150996	307824	2.03

Figure 2.17.3: Input cost, output cost and Input-output ratio of Cabbage (Winter) per hectare (in Rs.) from 2020-21 to 2023-24

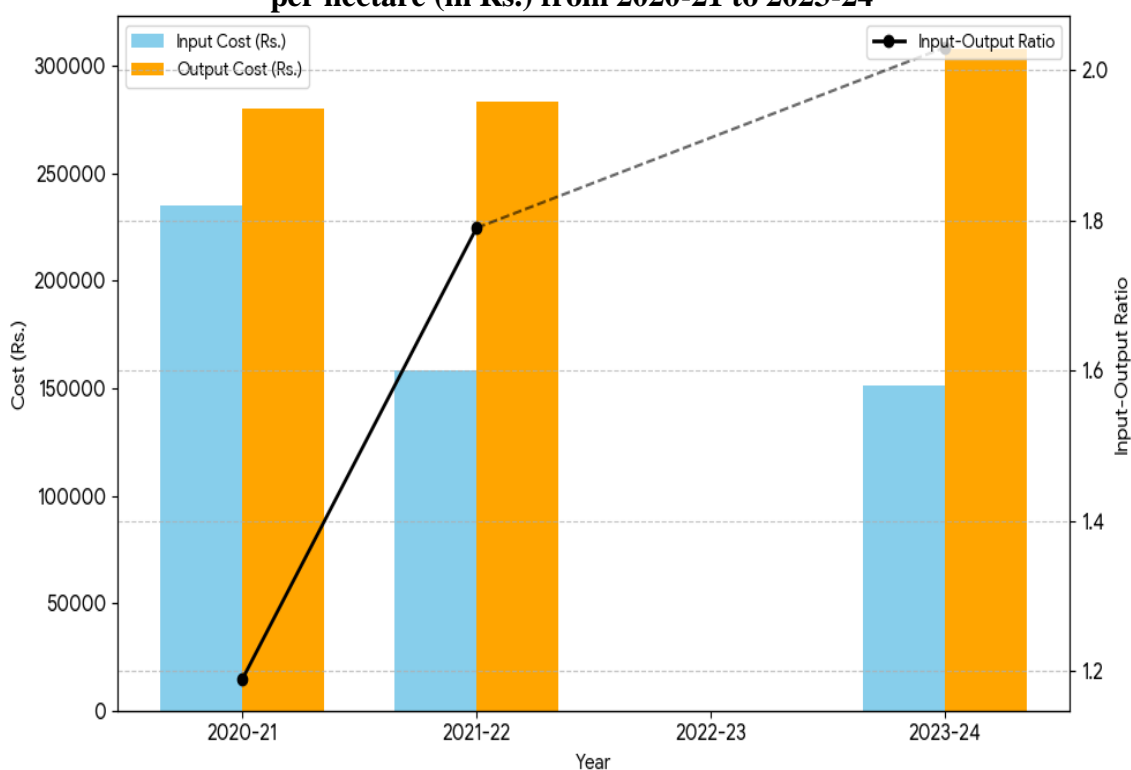
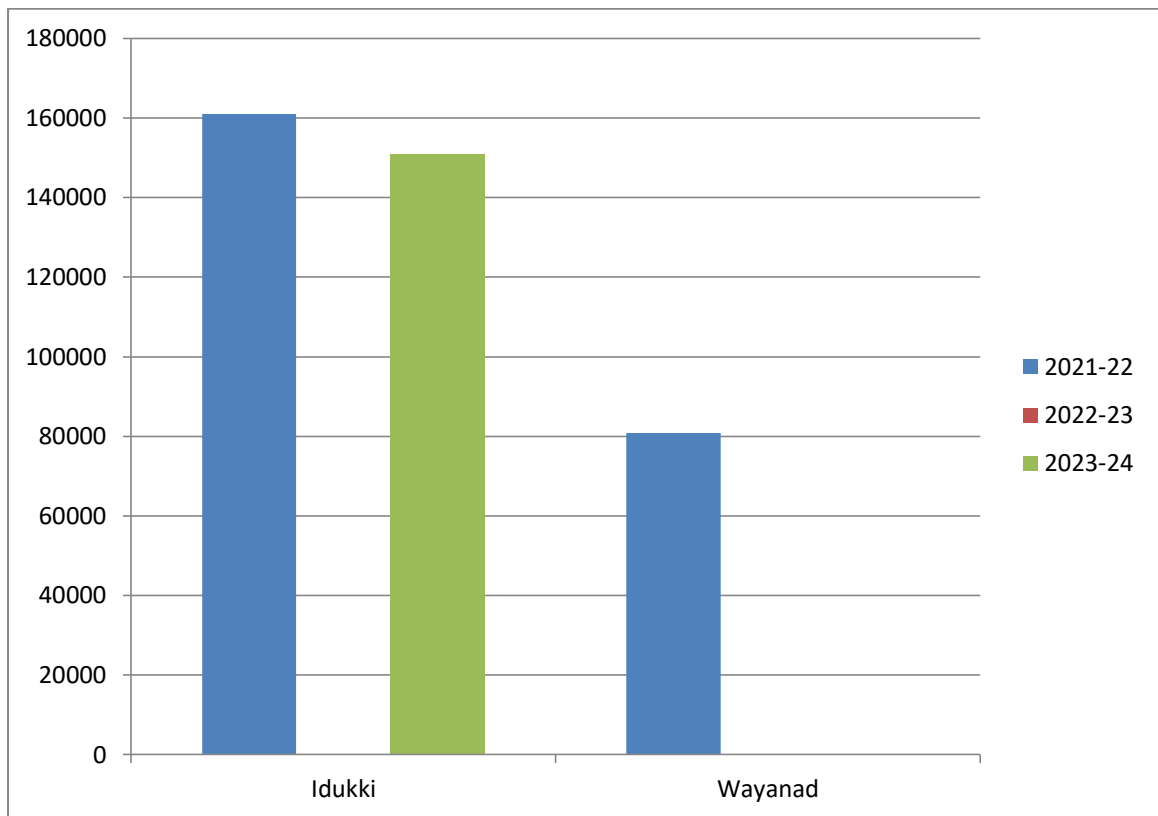


Table 2.17.7: Districtwise Cost of cultivation of Cabbage (Winter) per hectare (in Rs.) from 2021 -22 to 2023-24

District	Cost A		
	2021-22	2022-23	2023-24
Idukki	161070	-	150996
Wayanad	80856	-	-

figure 2.17.6: Districtwise Cost of cultivation of Cabbage(Winter) per hectare (in Rs.) from 2021 -22 to 2023-24



2.18.1.1 Area under Tomato-Autumn Cultivation

Details of holding selected and area coverage for this study are given below. The study on Tomato- autumn (virippu) cultivation covers a total of 30 holdings across an area of 4.94 hectares.

Table 2.18.1.1: Number of holdings and area under Tomato(Virippu)

Holding size class	Sample size (No.s)	Area under the crop in the sample (ha)	Percentage Area	Average Area Per holding (ha)
Small	19	1.38	28	0.07
Medium	11	3.56	72	0.32
Large	-	-	-	-
Total	30	4.94	100	0.16

2.18.1.2 Cost of cultivation

The estimated cost of cultivation of different items per hectare of Tomato(autumn) is furnished in the below table.

Table 2.18.1.2: Cost of Cultivation per hectare (in Rs.) of Tomato-Autumn (Virippu)

Sl.No	Components	Holding Size Class			
		Small	Medium	Large	All Sizes
1	Hired human labour	52687	58936	-	57195
2	Animal labour	0	0	-	0
3	Machine labour	6175	12490	-	10730
4	Seed /seedlings	16200	14224	-	14774
5	Farmyard manure and chemical fertilizers	29372	38176	-	35722
6	Plant Protection	7421	2456	-	3840
7	Land tax and irrigation cess	552	771	-	710
8	Repair and maintenance charges of implements, machinery and building	4108	441	-	1463
9	Interest on working capital	11186	12628	-	12226
10	Other expenses	16093	14315	-	14810

11	Total cost 'A'(1-10)	143794	154436	-	151471
12	Interest on fixed capital	128660	38427	-	63564
13	Cost 'B1'(11+12)	272454	192863	-	215035
14	Interest on land value	310328	294736	-	299081
15	Cost 'B'(13+14)	582783	487599	-	514116
16	Inputed value of household labour	64896	5922	-	22358
17	Cost 'C'(15+16))	647678	493521	-	536474

Figure 2.18.1.1: Percentage Distribution of Cost A per hectare of Tomato-Autumn (Virippu) during 2023-24

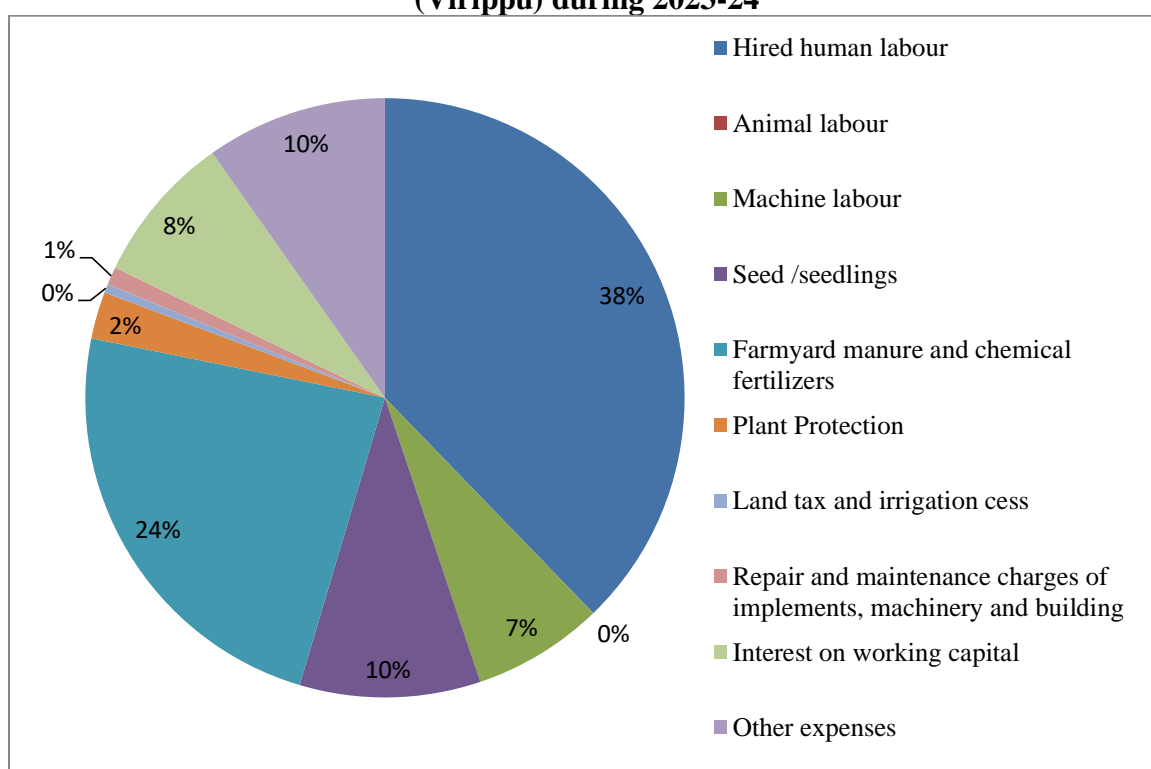


Table 2.18.1.3: Percentage of hired human labour hours to total labour hours of Tomato-Autumn (Virippu) during 2023 - 24

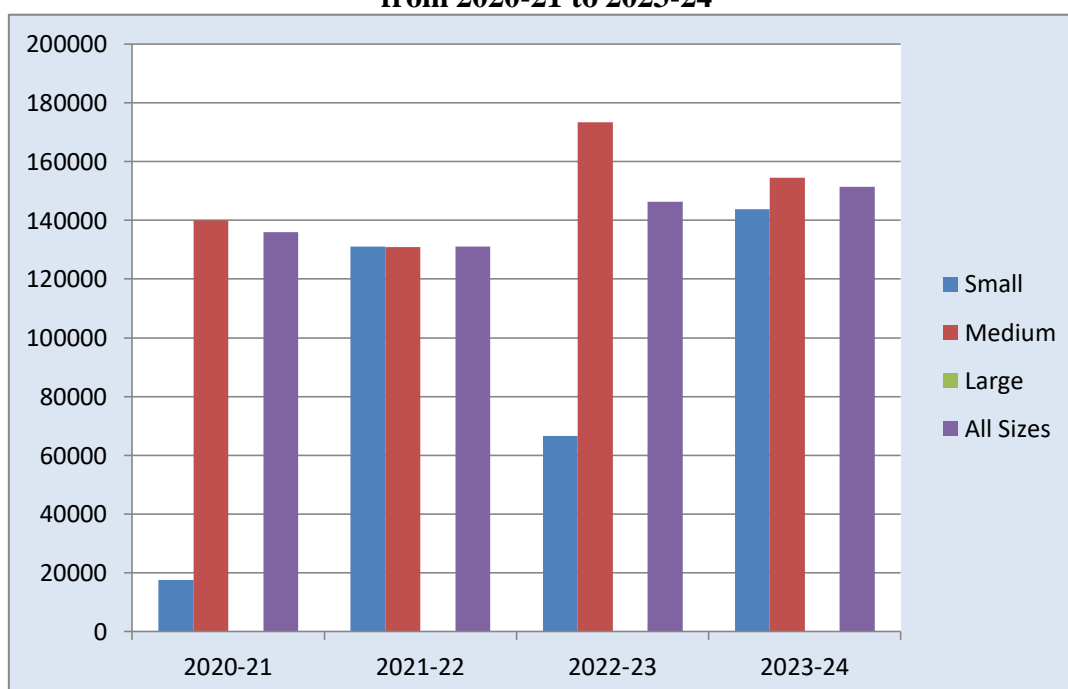
Sex	Holding Size Class			
	Small	Medium	Large	All Sizes
Male	14.52	16.93	-	16.07
Female	27.83	47.8	-	60.67
Total	42.35	64.73	-	76.74

Here the total labour is the sum of hired human labour and household human labour.

Table 2.18.1.4: Cost of cultivation of Tomato-Autumn (Virippu) per hectare (in Rs.) from 2020 -21 to 2023-24

Holding size class	Cost A(Rs.)			
	2020-21	2021-22	2022-23	2023-24
Small	17513	131044	66605	143794
Medium	140019	130943	173446	154436
Large	-	-	-	-
All Sizes	135901	130976	146250	151471

Figure 2.18.1.2: Cost of cultivation of Tomato-Autumn (Virippu) per hectare (in Rs.) from 2020-21 to 2023-24



2.18.1.3 Value of output

Details of product and by product for the year 2023-24 are given below.

Table 2.18.1.5: Value of output during the year 2023-24

Year	Holding size class	Product/Byproduct (in Rs.)
2023 - 24	Small	459610
	Medium	263465
	Large	-
	All Sizes	318128

Table 2.18.1.6: Input cost, output cost and Input-output ratio of Tomato-Autumn (Virippu) per hectare (in Rs.) from 2020 -21 to 2023-24

Year	Components		
	Input Cost(Rs.)	Output Cost(Rs.)	Input-output ratio
2020-21	135901	258949	1.91
2021-22	130976	283385	2.16
2022-23	146250	239734	1.64
2023-24	151471	318128	2.10

Figure 2.18.1.3: Input cost, output cost and Input-output ratio of Tomato-Autumn (Virippu) per hectare (in Rs.) from 2020 -21 to 2023-24

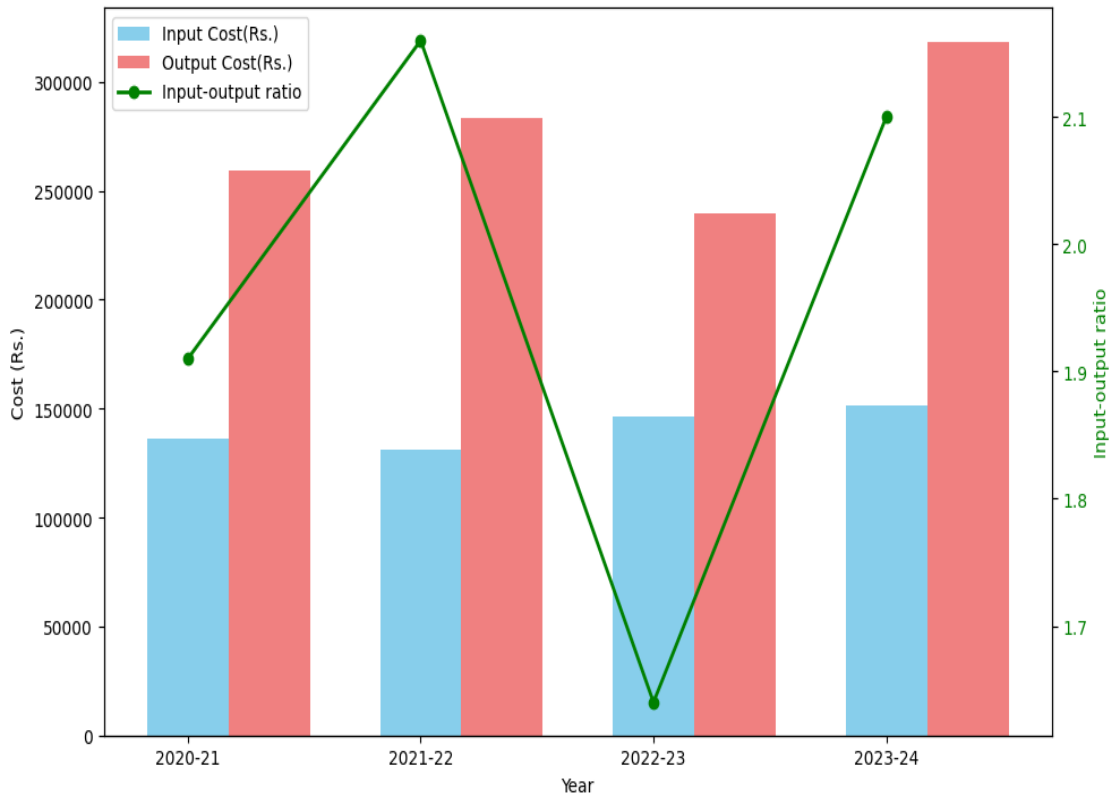
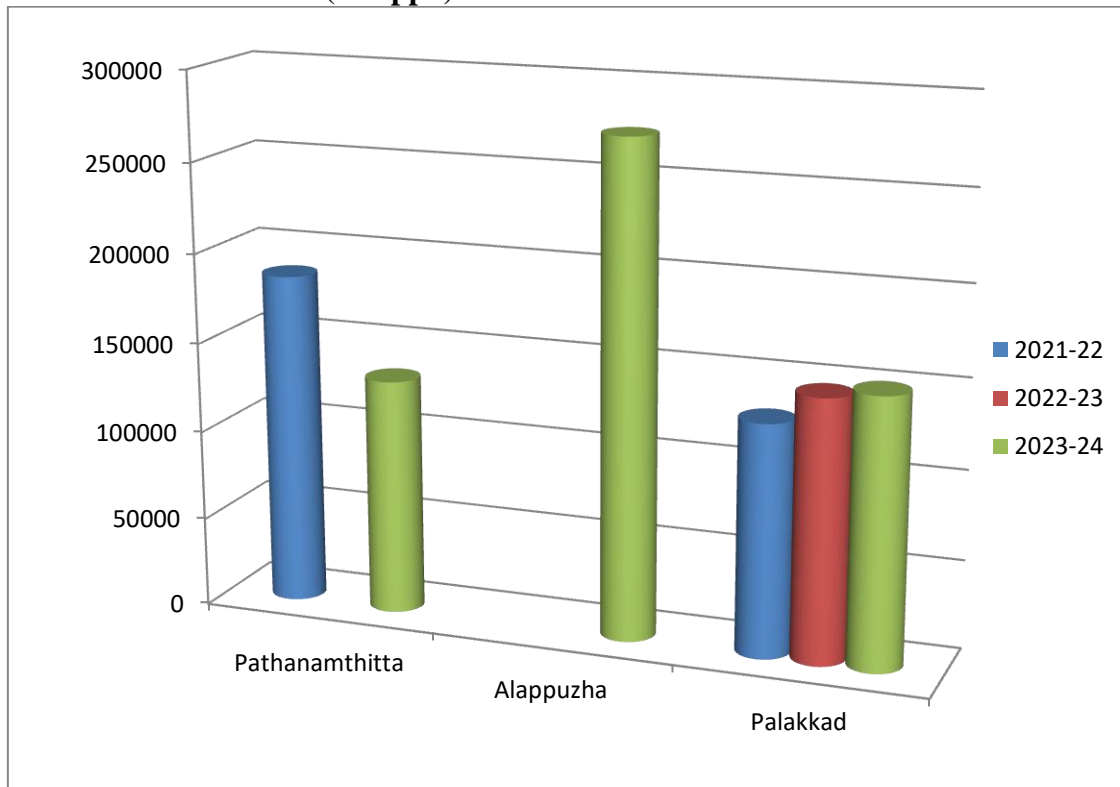


Table 2.18.1.7: Districtwise cost of cultivation (in Rs) per hectare of Tomato-Autumn (Virippu)cultivation from 2021-22 to 2023-24

District	2021-22	2022-23	2023-24
Pathanamthitta	185757	-	132145
Alappuzha	-	-	274307
Palakkad	129661	146250	150265

Figure 2.18.1.4: Districtwise cost of cultivation (in Rs) per hectare of Tomato-Autumn (Virippu)cultivation from 2021-22 to 2023-24



2.18.2.1 Area under Tomato-Winter Cultivation (Mundakan)

Details of holding selected and area coverage for this study are given below. The study on Tomato-Winter (Mundakan) cultivation covers a total of 18 holdings across an area of 4.50 hectares.

Table 2.18.2.1: Number of holdings and area under Tomato-Winter (Mundakan)

Holding size class	Sample size (No.s)	Area under the crop in the sample (ha)	Percentage Area	Average Area Per holding (ha)
Small	6	0.59	13	0.10
Medium	12	3.91	87	0.33
Large	-	-	-	-
Total	18	4.50	100	0.25

2.18.2.2 Cost of cultivation

The estimated cost of cultivation of different items per hectare of Tomato-Winter (Mundakan) is furnished in the below table.

Table 2.18.2.2: Cost of Cultivation per hectare (in Rs.) of Tomato-Winter (Mundakan)

Sl.No	Components	Holding Size Class			
		Small	Medium	Large	All Sizes
1	Hired human labour	34093	58602	-	55400
2	Animal labour	0	0	-	0
3	Machine labour	12435	9202	-	9624
4	Seed /seedlings	16242	19837	-	19367
5	Farmyard manure and chemical fertilizers	54706	33508	-	36277
6	Plant Protection	2044	3457	-	3273
7	Land tax and irrigation cess	559	868	-	828
8	Repair and maintenance charges of implements, machinery and building	170	154	-	156
9	Interest on working capital	11952	12461	-	12394
10	Other expenses	18908	11211	-	12216
11	Total cost 'A'(1-10)	151110	149299	-	149536
12	Interest on fixed capital	46552	27069	-	29640
13	Cost 'B1'(11+12)	197662	176368	-	179175
14	Interest on land value	193148	146218	-	152349
15	Cost 'B'(13+14)	390810	322586	-	331524
16	Inputed value of household labour	30103	8728	-	11520
17	Cost 'C'(15+16)	420913	331314	-	343044

Figure 2.18.2.1: Percentage Distribution of Cost A per hectare of Tomato-Winter (Mundakan) during 2023-24

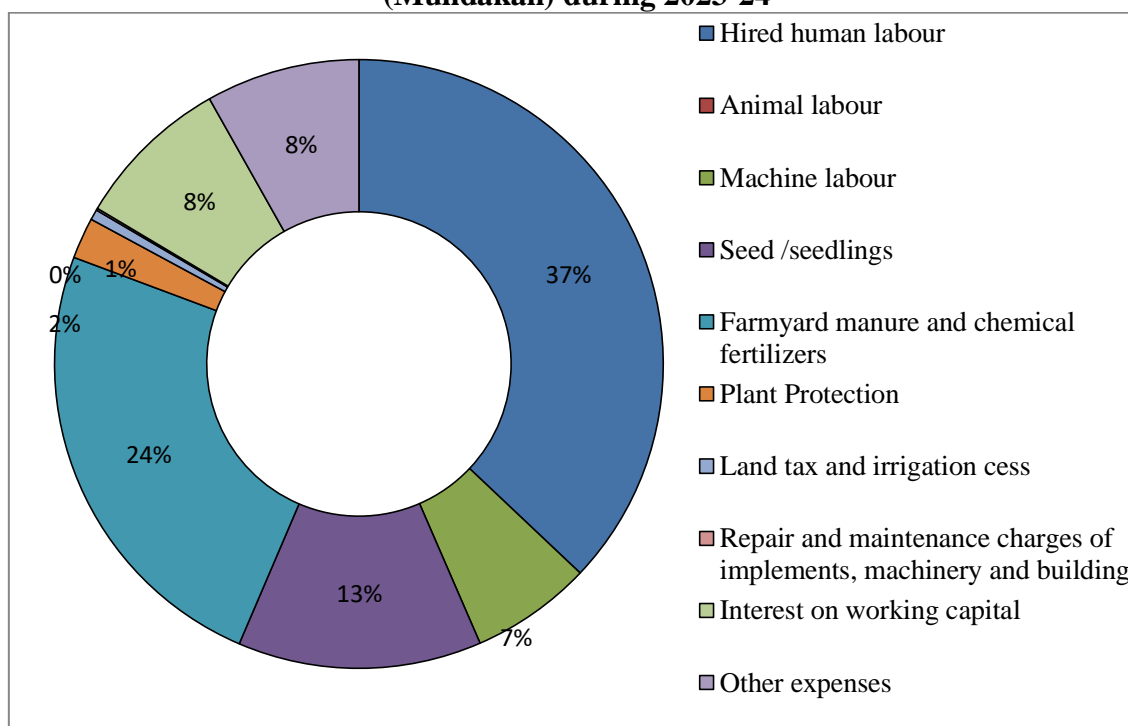


Table 2.18.2.3: Percentage of hired human labour hours to total labour hours of Tomato-Winter (Mundakan) during 2023 - 24

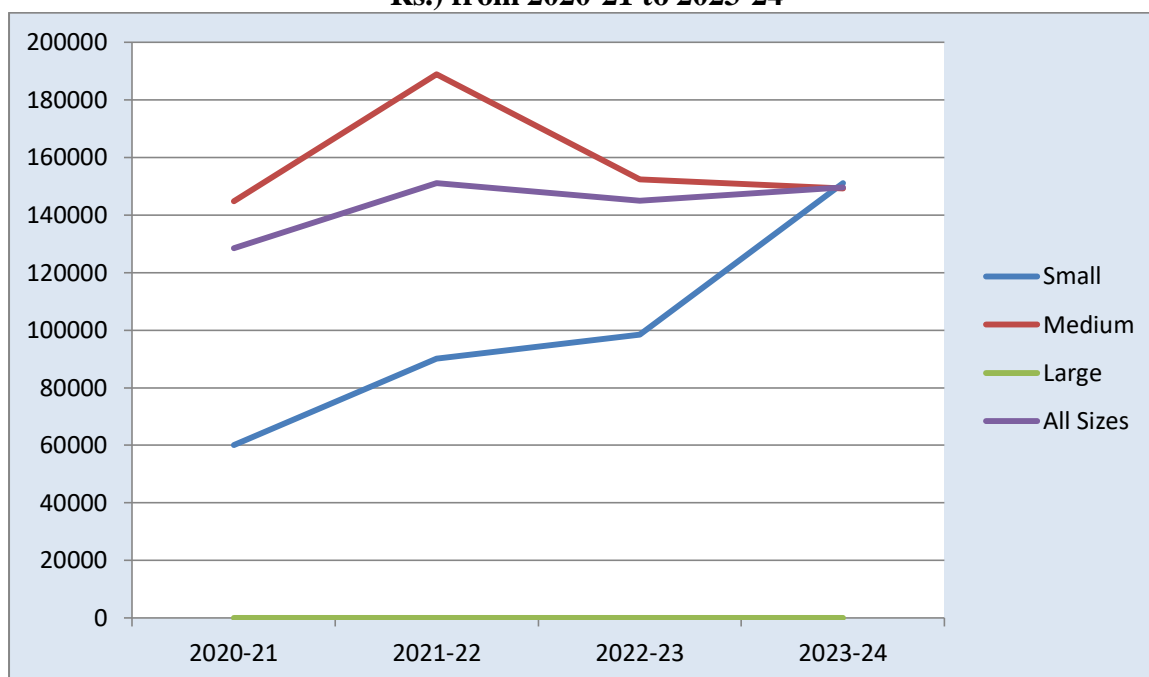
Sex	Holding Size Class			
	Small	Medium	Large	All Sizes
Male	7.01	14.93	-	13.93
Female	33.37	46.12	-	69.49
Total	40.38	61.05	-	83.42

Here the total labour is the sum of hired human labour and household human labour.

Table 2.18.2.4: Cost of cultivation of Tomato-Winter (Mundakan) per hectare (in Rs.) from 2020 -21 to 2023-24

Holding size class	Cost A(Rs.)			
	2020-21	2021-22	2022-23	2023-24
Small	60016	90092	98376	151110
Medium	144860	188945	152456	149299
Large	-	-	-	-
All Sizes	128492	151040	144979	149536

Figure 2.18.2.2: Cost of cultivation of Tomato-Winter (Mundakan) per hectare (in Rs.) from 2020-21 to 2023-24



2.18.2.3 Value of output

Details of product and by product for the year 2023-24 are given below.

Table 2.18.2.5: Value of output during the year 2023-24

Year	Holding size class	Product/Byproduct (in Rs.)
2023 - 24	Small	180022
	Medium	194123
	Large	0
	All Sizes	192281

Table 2.18.2.6: Input cost, output cost and Input-output ratio of Tomato-Winter (Mundakan) per hectare (in Rs.) from 2020 -21 to 2023-24

Year	Components		
	Input Cost(Rs.)	Output Cost(Rs.)	Input-output ratio
2020-21	128492	254837	1.98
2021-22	151040	260521	1.72
2022-23	144979	219371	1.51
2023-24	149536	192281	1.29

Figure 2.18.2.3: Input cost, output cost and Input-output ratio of Tomato-Winter (Mundakan) per hectare (in Rs.) from 2020 -21 to 2023-24

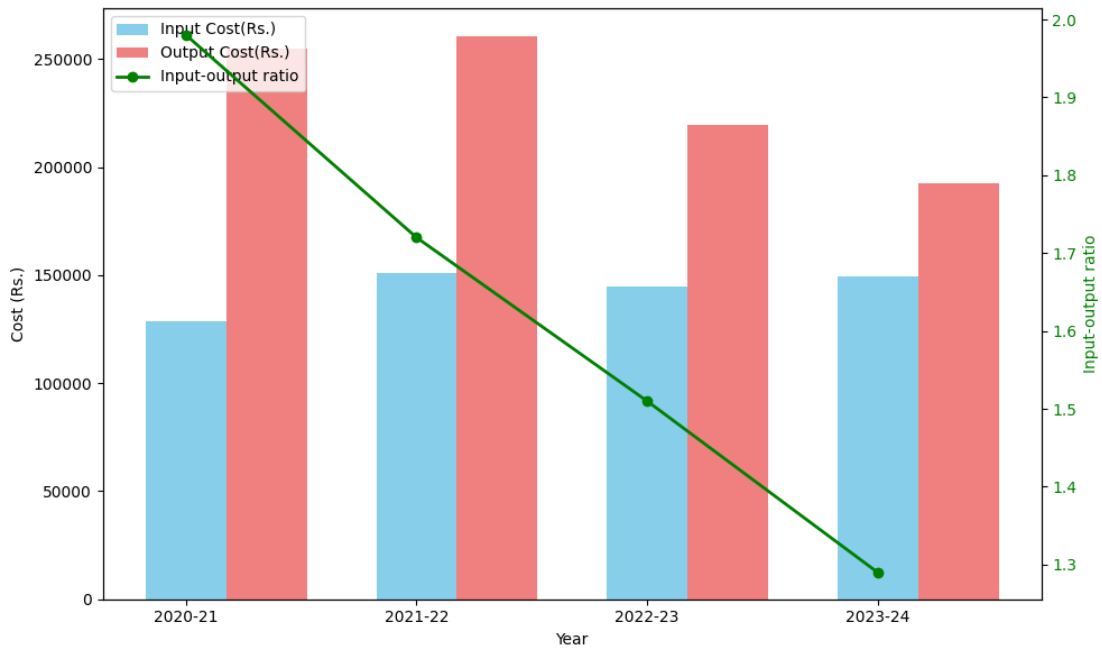
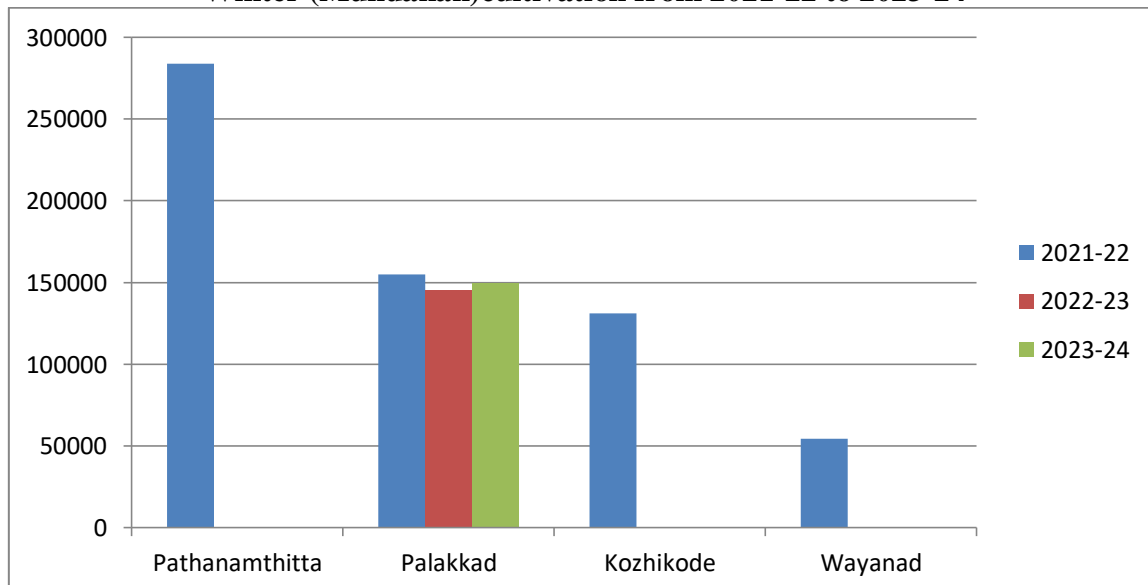


Table 2.18.2.7: Districtwise cost of cultivation (in Rs) per hectare of Tomato-Winter (Mundakan) cultivation from 2021-22 to 2023-24

DISTRICT	2021-22	2022-23	2023-24
Pathanamthitta	283902	-	-
Palakkad	154770	144979	149536
Kozhikode	130930	-	-
Wayanad	54500	-	-

Figure 2.18.2.4 : Districtwise cost of cultivation (in Rs) per hectare of Tomato-Winter (Mundakan)cultivation from 2021-22 to 2023-24



2.18.3.1 Area under Tomato–Summer Cultivation (Puncha)

Details of holding selected and area coverage for this study are given below. The study on Tomato-Summer (Puncha) covers a total of 12 holdings across an area of 2.02 hectares.

Table 2.18.3.1: Number of holdings and area under Tomato–Summer (Puncha)

Holding size class	Sample size (No.s)	Area under the crop in the sample (ha)	Percentage Area	Average Area Per holding (ha)
Small	7	0.52	26	0.07
Medium	5	1.50	74	0.30
Large	-	-	-	-
Total	12	2.02	100.00	0.17

2.18.3.2 Cost of cultivation

The estimated cost of cultivation of different items per hectare of Tomato–Summer (Puncha) is furnished in the below table.

Table 2.18.3.2: Cost of Cultivation per hectare (in Rs.) of Tomato–Summer (Puncha)

Sl.No	Components	Holding Size Class			
		Small	Medium	Large	All Sizes
1	Hired human labour	28417	65664	-	56090
2	Animal labour	0	0	-	0
3	Machine labour	9185	11749	-	11090
4	Seed /seedlings	13932	15067	-	14775
5	Farmyard manure and chemical fertilizers	66626	71283	-	70086
6	Plant Protection	2402	2470	-	2453
7	Land tax and irrigation cess	592	659	-	642
8	Repair and maintenance charges of implements, machinery and building	96	551	-	434
9	Interest on working capital	12056	16623	-	15449
10	Other expenses	15920	18959	-	18178
11	Total cost 'A'(1-10)	149228	203025	-	189198
12	Interest on fixed capital	18930	18545	-	18609

13	Cost 'B1'(11+12)	168158	221570	-	207806
14	Interest on land value	160079	330576	-	286754
15	Cost 'B'(13+14)	328237	552146	-	494560
16	Imputed value of household labour	41687		-	10715
17	Cost 'C'(15+16))	369924	552146	-	505275

Figure 2.18.3.1: Percentage Distribution of Cost A per hectare of Tomato–Summer (Puncha) during 2023-24

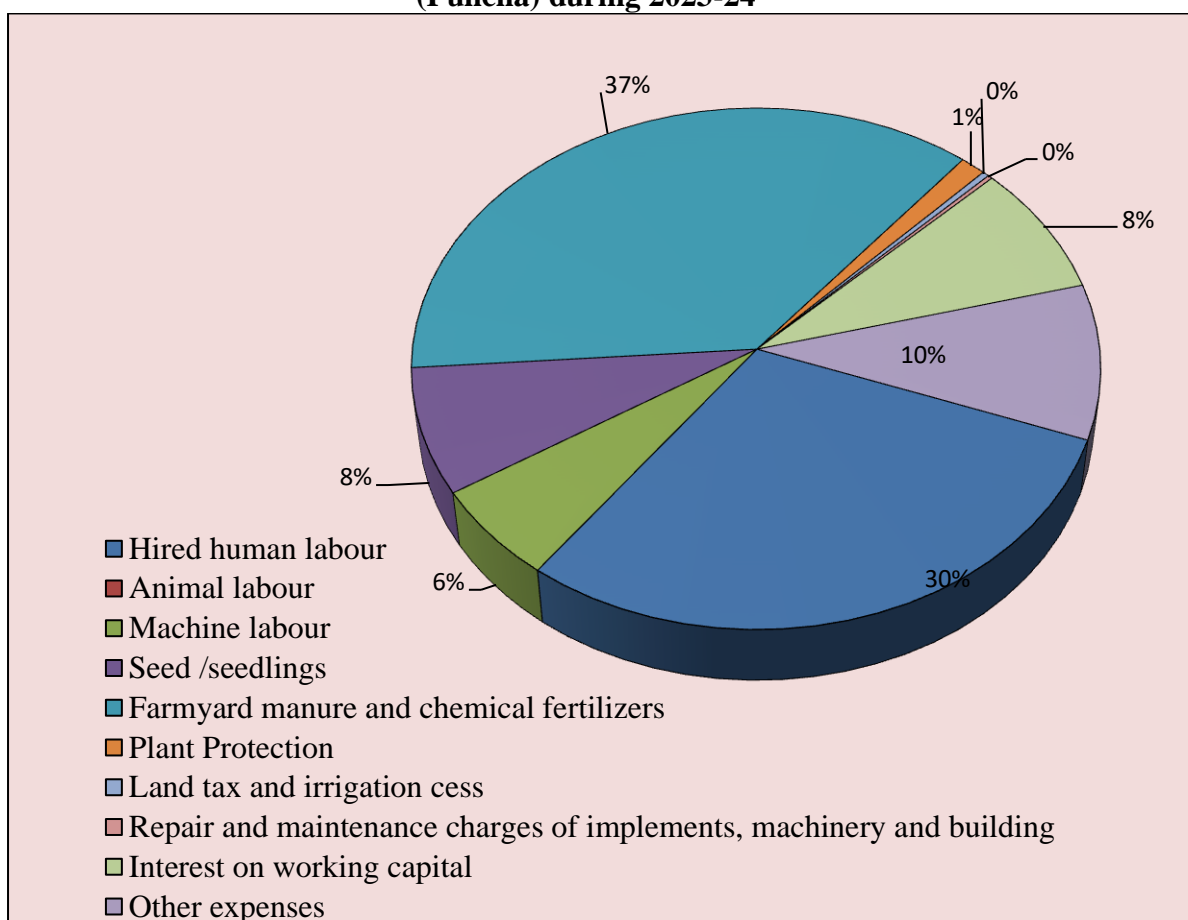


Table 2.18.3.3: Percentage of hired human labour hours to total labour hours of Tomato–Summer (Puncha) during 2023-24

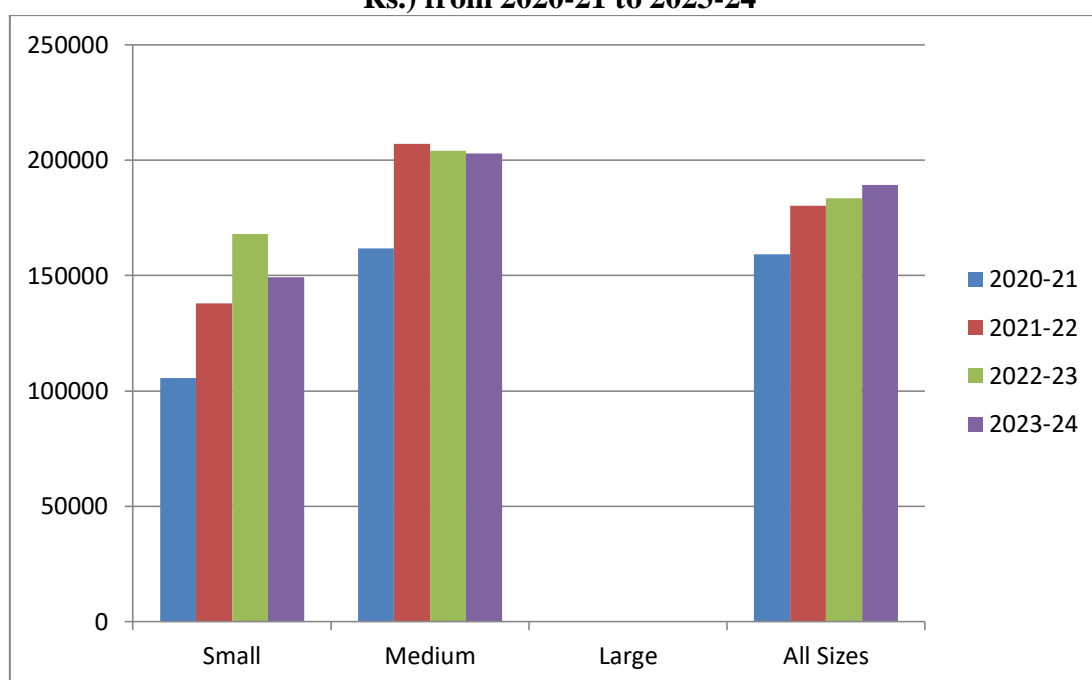
Sex	Holding Size Class			
	Small	Medium	Large	All Sizes
Male	6.57	11.91	-	10.55
Female	27.85	50	-	74.87
Total	34.42	61.91	-	85.42

Here the total labour is the sum of hired human labour and household human labour.

Table 2.18.3.4: Cost of cultivation of Tomato–Summer (Puncha) per hectare (in Rs.) from 2020 -21 to 2023-24

Holding size class	Cost A(Rs.)			
	2020-21	2021-22	2022-23	2023-24
Small	105522	137904	168021	149228
Medium	161832	207086	204077	203025
Large	-	-	-	-
All Sizes	159132	180259	183473	189198

Figure 2.18.3.2: Cost of cultivation of Tomato–Summer (Puncha) per hectare (in Rs.) from 2020-21 to 2023-24



2.18.3.3 Value of output

Details of product and by product for the year 2023-24 are given below.

Table 2.18.3.5: Value of output during the year 2023-24

Year	Holding size class	Product/Byproduct (in Rs.)
2023 - 24	Small	243141
	Medium	287054
	Large	0
	All Sizes	275767

Table 2.18.3.6: Input cost, output cost and Input-output ratio of Tomato–Summer (Puncha) per hectare (in Rs.) from 2020 -21 to 2023-24

Year	Components		
	Input Cost(Rs.)	Output Cost(Rs.)	Input-output ratio
2020-21	159132	97636	0.61
2021-22	180259	310910	1.72
2022-23	183473	280698	1.53
2023-24	189198	275767	1.46

Figure 2.18.3.3: Input cost, output cost and Input-output ratio of of Tomato–Summer (Puncha) per hectare (in Rs.) from 2020 -21 to 2023-24

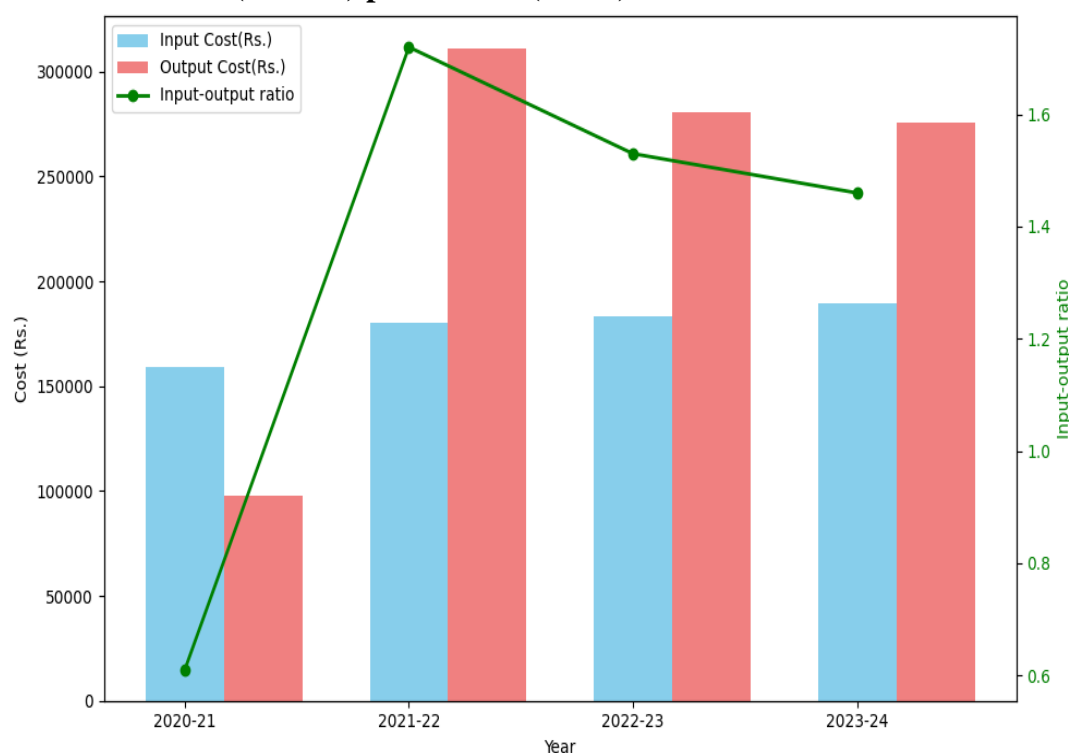
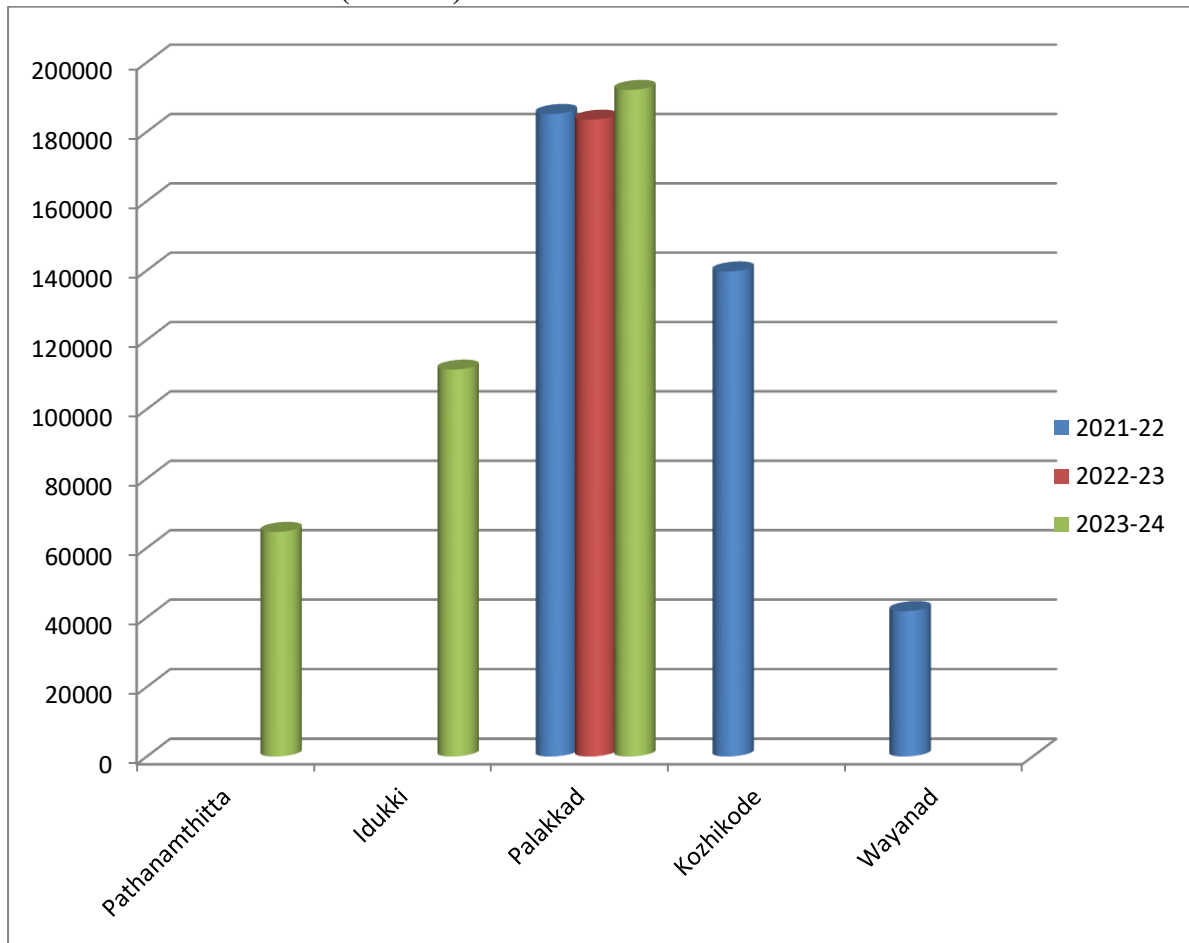


Table 2.18.3.7: Districtwise cost of cultivation (in Rs) per hectare of Tomato–Summer (Puncha) cultivation from 2021-22 to 2023-24

DISTRICT	2021-22	2022-23	2023-24
Pathanamthitta	-	-	64591
Idukki	-	-	111397
Palakkad	185111	183473	192055
Kozhikode	139708		
Wayanad	41780	-	-

**Table 2.18.3.4: Districtwise cost of cultivation (in Rs) per hectare of Tomato–
Summer (Puncha) cultivation from 2021-22 to 2023-24**



2.19.1 Area under Beans summer Cultivation during 2023-24

Details of holding selected and area coverage of Beans summer for this study are given below. The data collected from 1 holding according to the size class by covering 0.02 hectare of land.

Table 2.19.1: Number of holdings and area under Beans summer

Holding size class	Sample size (No.s)	Area under the crop in the sample (ha)	Percentage Area	Average Area Per holding (ha)
Small	1	0.02	100	0.02
Medium	-	-	-	-
Large	-	-	--	-
Total	1	0.02	100	0.02

2.19.2 Cost of cultivation

The estimated cost of cultivation of different items per hectare of Beans summer is furnished in the below table.

Table 2.19.2: Cost of Cultivation per hectare (in Rs.) of Beans summer

Sl.No	Components	Holding Size Class			
		Small	Medium	Large	All Sizes
1	Hired human labour	179075	-	-	179075
2	Animal labour	0	-	-	0
3	Machine labour	0	-	-	0
4	Seed /seedlings	4631	-	-	4631
5	Farmyard manure and chemical fertilizers	16302	-	-	16302
6	Plant Protection	7410	-	-	7410
7	Land tax and irrigation cess	741	-	-	741
8	Repair and maintenance charges of implements, machinery and building	4940	-	-	4940
9	Interest on working capital	20742	-	-	20742

10	Other expenses	14820	-	-	14820
11	Total cost 'A'(1-10)	248661	-	-	248661
12	Interest on fixed capital	769010	-	-	769010
13	Cost 'B1'(11+12)	1017671	-	-	1017671
14	Interest on land value	395694	-	-	395694
15	Cost 'B'(13+14)	1413365	-	-	1413365
16	Imputed value of household labour	59280	-	-	59280
17	Cost 'C'(15+16)	1472645	-	-	1472645

Figure 2.19.1: Cost of Cultivation per hectare (in Rs.) of Beans summer

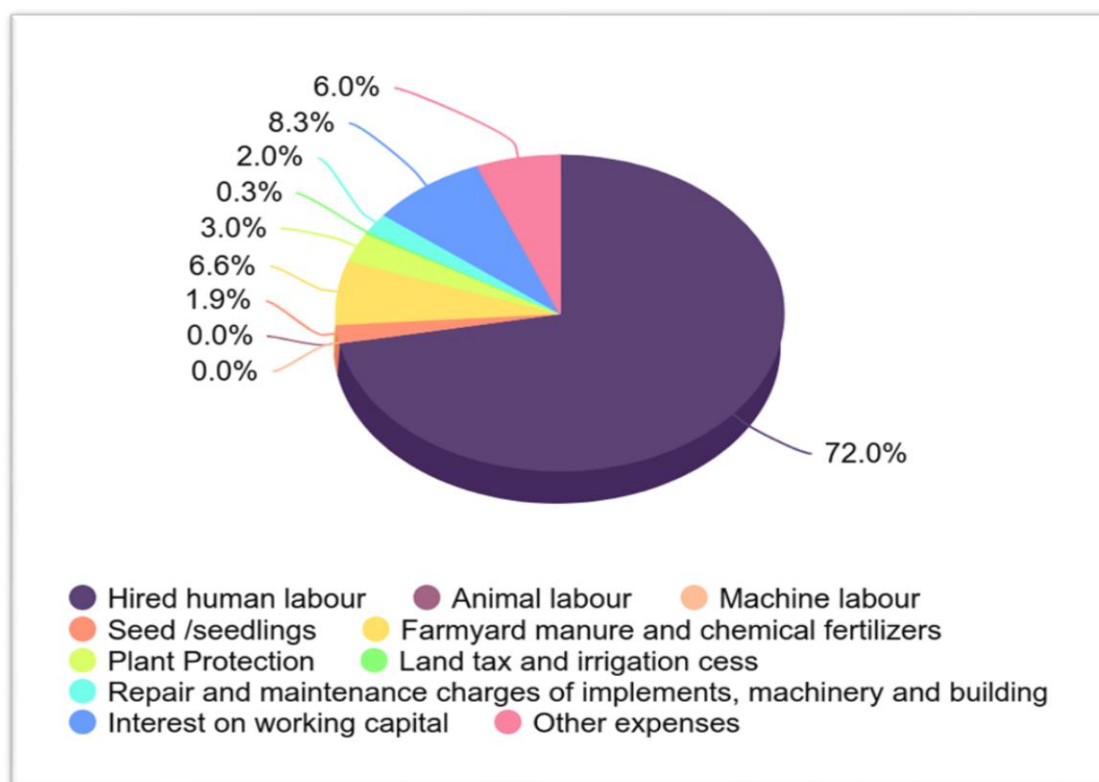


Table 2.19.3: Percentage of hired human labour hours to total labour hours of Beans summer during 2023 - 24

Sex	Holding Size Class			
	Small	Medium	Large	All Sizes
Male	62.26	-	-	62.26
Female	-	-	-	-
Total	62.26	-	-	62.26

2.19.3 Value of output

Details of product and by product for the year 2023-24 is given below.

Table 2.19.5: Value of output during the year 2023-24

Holding size class	Product (in Rs.)
Small	446082
Medium	-
Large	-
All Sizes	446082

Table 2.19.6: Input cost, output cost and Input-output ratio of Beans summer per hectare (in Rs.) in 2023 24

Year	Components		
	Input Cost (Rs.)	Output Cost (Rs.)	Input-output ratio
2023-24	248661	446082	1.79

Appendix

A1.1 District wise Area and number of holding under Autumn Paddy during 2023-24

Sl. No	District	Sample Size	Area under the crop in the sample (ha)	percentage Area	Average Area per holding (ha)
1	Thiruvananthapuram	36	14.67	4.15	0.41
2	Kollam	55	22.49	6.37	0.41
3	Pathanamthitta	16	6.62	1.87	0.41
4	Alappuzha	50	67.11	19	1.34
5	Kottayam	30	33.49	9.48	1.12
6	Idukki	15	7.47	2.11	0.5
7	Ernakulam	44	27.59	7.81	0.63
8	Thrissur	45	68.6	19.42	1.52
9	Palakkad	16	19.98	5.66	1.25
10	Malappuram	45	42.55	12.04	0.95
11	Kozhikode	26	8.11	2.3	0.31
12	Wayanad	-	-	-	-
13	Kannur	30	17.18	4.86	0.57
14	Kasargod	30	17.41	4.93	0.58
	State	438	353.28	100	0.81

A1.2 District wise Area and number of holding under Winter Paddy during 2023-24

Sl. No	District	Sample Size	Area under the crop in the sample (ha)	percentage Area	Average Area per holding (ha)
1	Thiruvananthapuram	25	7.5	1.41	0.3
2	Kollam	60	20.49	3.86	0.34
3	Pathanamthitta	36	72.83	13.73	2.02
4	Alappuzha	69	115.4	21.76	1.67
5	Kottayam	31	38.01	7.17	1.23
6	Idukki	15	6.41	1.21	0.43
7	Ernakulam	45	33.57	6.33	0.75
8	Thrissur	45	74.81	14.11	1.66
9	Palakkad	30	40.72	7.68	1.36
10	Malappuram	45	51.34	9.68	1.14
11	Kozhikode	30	21.1	3.98	0.7
12	Wayanad	15	15.77	2.97	1.05
13	Kannur	30	15.6	2.94	0.52
14	Kasargod	30	16.81	3.17	0.56
	State	506	530.36	100	1.05

A1.3. District wise Area and number of holding under Summer Paddy during 2023-24

Sl. No	District	Sample Size	Area under the crop in the sample (ha)	percentage Area	Average Area per holding (ha)
1	Thiruvananthapuram	34	10.43	1.3	0.31
2	Kollam	26	17.09	2.13	0.66
3	Pathanamthitta	51	280.23	35.01	5.49
4	Alappuzha	75	170.82	21.34	2.28
5	Kottayam	45	114.7	14.33	2.55
6	Idukki	1	2.55	0.32	2.55
7	Ernakulam	45	28.6	3.57	0.64
8	Thrissur	45	66.37	8.29	1.47
9	Palakkad	16	17.81	2.22	1.11
10	Malappuram	42	50.62	6.32	1.21
11	Kozhikode	30	21.47	2.68	0.72
12	Wayanad	15	6.3	0.79	0.42
13	Kannur	2	0.32	0.04	0.16
14	Kasargod	30	13.23	1.65	0.44
	State	457	800.53	100	1.75

A1.4. District wise Area and number of holding under Coconut during 2023-24

Sl. No	District	Sample Size	Area under the crop in the sample (ha)	percentage Area	Average Area per holding (ha)
1	Thiruvananthapuram	60	18.29	5.55	0.3
2	Kollam	80	18.51	5.61	0.23
3	Pathanamthitta	80	19.55	5.93	0.24
4	Alappuzha	100	51.7	15.67	0.52
5	Kottayam	60	24.09	7.3	0.4
6	Idukki	20	5.69	1.73	0.28
7	Ernakulam	60	19.3	5.85	0.32
8	Thrissur	60	31.66	9.6	0.53
9	Palakkad	40	26.02	7.89	0.65
10	Malappuram	60	33.97	10.3	0.57
11	Kozhikode	40	27.4	8.31	0.69
12	Wayanad	20	6.78	2.06	0.34
13	Kannur	40	20.46	6.2	0.51
14	Kasargod	40	26.42	8.01	0.66
	State	760	329.83	100	0.43

A1.5. District wise Area and number of holding under Arecanut during 2023-24

Sl. No	District	Sample Size	Area under the crop in the sample (ha)	percentage Area	Average Area per holding (ha)
1	Thiruvananthapuram	60	7.36	5.7	0.12
2	Kollam	80	3.82	2.96	0.05
3	Pathanamthitta	80	2.95	2.28	0.04
4	Alappuzha	100	3.42	2.65	0.03
5	Kottayam	60	4.63	3.58	0.08
6	Idukki	20	2.6	2.01	0.13
7	Ernakulam	60	10.18	7.88	0.17
8	Thrissur	60	12.32	9.54	0.21
9	Palakkad	40	11.44	8.86	0.29
10	Malappuram	60	24.46	18.93	0.41
11	Kozhikode	40	8.57	6.63	0.21
12	Wayanad	20	8	6.19	0.4
13	Kannur	40	7.54	5.84	0.19
14	Kasargod	40	21.89	16.94	0.55
	State	760	129.19	100	0.17

A1.6. District wise Area and number of holding under Tapioca during 2023-24

Sl. No	District	Sample Size	Area under the crop in the sample (ha)	percentage Area	Average Area per holding (ha)
1	Thiruvananthapuram	45	8.92	7.17	0.2
2	Kollam	60	9.53	7.66	0.16
3	Pathanamthitta	60	9.94	7.99	0.17
4	Alappuzha	75	7.4	5.95	0.1
5	Kottayam	45	7.63	6.14	0.17
6	Idukki	15	3.1	2.49	0.21
7	Ernakulam	45	15.1	12.14	0.34
8	Thrissur	45	13.02	10.47	0.29
9	Palakkad	30	11.89	9.56	0.4
10	Malappuram	45	15.6	12.55	0.35
11	Kozhikode	30	9.68	7.78	0.32
12	Wayanad	15	4.13	3.32	0.28
13	Kannur	30	5.14	4.13	0.17
14	Kasargod	26	3.29	2.65	0.13
	State	566	124.35	100	0.22

A1.7. District wise Area and number of holding under Banana during 2023-24

Sl. No	District	Sample Size	Area under the crop in the sample (ha)	percentage Area	Average Area per holding (ha)
1	Thiruvananthapuram	45	11.65	8.05	0.26
2	Kollam	60	7.42	5.13	0.12
3	Pathanamthitta	60	10.53	7.28	0.18
4	Alappuzha	54	6.88	4.75	0.13
5	Kottayam	45	9.98	6.9	0.22
6	Idukki	15	2.55	1.76	0.17
7	Ernakulam	45	14.94	10.32	0.33
8	Thrissur	45	15.34	10.6	0.34
9	Palakkad	30	13.04	9.01	0.43
10	Malappuram	45	18.23	12.59	0.41
11	Kozhikode	30	11.92	8.24	0.4
12	Wayanad	15	7.04	4.86	0.47
13	Kannur	30	11.42	7.89	0.38
14	Kasargod	30	3.81	2.63	0.13
	State	549	144.74	100	0.26

A1.8. District wise Area and number of holding under Pepper during 2023-24

Sl. No	District	Sample Size	Area under the crop in the sample (ha)	percentage Area	Average Area per holding (ha)
1	Thiruvananthapuram	45	5.04	9.15	0.11
2	Kollam	60	2.03	3.69	0.03
3	Pathanamthitta	60	2.89	5.25	0.05
4	Alappuzha	53	2.49	4.52	0.05
5	Kottayam	45	4.16	7.56	0.09
6	Idukki	15	1.78	3.23	0.12
7	Ernakulam	45	4.99	9.06	0.11
8	Thrissur	45	3.42	6.21	0.08
9	Palakkad	30	3.21	5.83	0.11
10	Malappuram	45	7.72	14.02	0.17
11	Kozhikode	30	6.79	12.33	0.23
12	Wayanad	15	4.51	8.19	0.3
13	Kannur	30	2.35	4.27	0.08
14	Kasargod	30	3.68	6.68	0.12
	State	548	55.06	100	0.1

A1.9. District wise Area and number of holding under Ginger during 2023-24

Sl. No	District	Sample Size	Area under the crop in the sample (ha)	percentage Area	Average Area per holding (ha)
1	Thiruvananthapuram	45	2.19	6.42	0.05
2	Kollam	60	1.84	5.4	0.03
3	Pathanamthitta	60	2.75	8.07	0.05
4	Alappuzha	27	0.76	2.23	0.03
5	Kottayam	40	1.72	5.05	0.04
6	Idukki	6	0.39	1.14	0.07
7	Ernakulam	35	1.22	3.58	0.03
8	Thrissur	35	1.66	4.87	0.05
9	Palakkad	23	13.06	38.31	0.57
10	Malappuram	13	0.61	1.79	0.05
11	Kozhikode	28	1.51	4.43	0.05
12	Wayanad	15	3.58	10.5	0.24
13	Kannur	27	1.79	5.25	0.07
14	Kasargod	13	1.01	2.96	0.08
	State	427	34.09	100	0.08

A1.10. District wise Area and number of holding under Turmeric during 2023-24

Sl. No	District	Sample Size	Area under the crop in the sample (ha)	percentage Area	Average Area per holding (ha)
1	Thiruvananthapuram	45	2.24	7.98	0.05
2	Kollam	60	1.54	5.49	0.03
3	Pathanamthitta	60	2.06	7.34	0.03
4	Alappuzha	49	2.06	7.34	0.04
5	Kottayam	40	2.13	7.59	0.05
6	Idukki	8	0.23	0.82	0.03
7	Ernakulam	35	1.25	4.45	0.04
8	Thrissur	45	3.18	11.33	0.07
9	Palakkad	25	3.12	11.12	0.12
10	Malappuram	35	3.91	13.93	0.11
11	Kozhikode	30	1.8	6.41	0.06
12	Wayanad	15	0.65	2.32	0.04
13	Kannur	30	2.47	8.8	0.08
14	Kasargod	24	1.43	5.1	0.06
	State	501	28.06	100	0.06

A1.11. District wise Area and number of holding under Pineapple during 2023-24

Sl. No	District	Sample Size	Area under the crop in the sample (ha)	percentage Area	Average Area per holding (ha)
1	Thiruvananthapuram	1	1.01	0.19	1.01
2	Kollam	30	3.75	0.71	0.13
3	Pathanamthitta	6	3.42	0.65	0.57
4	Alappuzha	7	3.6	0.69	0.51
5	Kottayam	45	62.85	11.98	1.4
6	Idukki	15	21.66	4.13	1.44
7	Ernakulam	30	108.4	20.66	3.61
8	Thrissur	37	104.37	19.89	2.82
9	Palakkad	2	18.22	3.47	9.11
10	Malappuram	2	7.69	1.47	3.85
11	Kozhikode	18	117.09	22.31	6.51
12	Wayanad				
13	Kannur	9	22.47	4.28	2.5
14	Kasargod	7	50.2	9.57	7.17
	State	209	524.74	100	2.51

A1.12. District wise Area and number of holding under Bitter Gourd (Autumn) during 2023-24

Sl. No	District	Sample Size	Area under the crop in the sample (ha)	percentage Area	Average Area per holding (ha)
1	Thiruvananthapuram	30	3.71	11.69	0.12
2	Kollam	38	1.35	4.25	0.04
3	Pathanamthitta	31	2.34	7.37	0.08
4	Alappuzha	27	1.11	3.5	0.04
5	Kottayam	27	2.19	6.9	0.08
6	Idukki				
7	Ernakulam	11	1.96	6.17	0.18
8	Thrissur	30	5.53	17.42	0.18
9	Palakkad	20	8.04	25.32	0.4
10	Malappuram	19	3.47	10.93	0.18
11	Kozhikode	5	0.4	1.26	0.08
12	Wayanad				
13	Kannur	16	1.65	5.2	0.1
14	Kasargod				
	State	254	31.75	100	0.13

**A1.13. District wise Area and number of holding under Bitter Gourd (Winter)
during 2023-24**

Sl. No	District	Sample Size	Area under the crop in the sample (ha)	percentage Area	Average Area per holding (ha)
1	Thiruvananthapuram	30	3.61	13.74	0.12
2	Kollam	39	1.28	4.87	0.03
3	Pathanamthitta	29	1.79	6.81	0.06
4	Alappuzha	18	0.83	3.16	0.05
5	Kottayam	24	2.88	10.96	0.12
6	Idukki	10	2.17	8.26	0.22
7	Ernakulam	10	1.4	5.33	0.14
8	Thrissur	30	2.67	10.16	0.09
9	Palakkad	17	5.61	21.35	0.33
10	Malappuram	18	1.4	5.33	0.08
11	Kozhikode	7	0.79	3.01	0.11
12	Wayanad				
13	Kannur	16	0.87	3.31	0.05
14	Kasargod	15	0.99	3.77	0.07
	State	263	26.28	100	0.1

**A1.14. District wise Area and number of holding under Bitter Gourd (Summer)
during 2023-24**

Sl. No	District	Sample Size	Area under the crop in the sample (ha)	percentage Area	Average Area per holding (ha)
1	Thiruvananthapuram	28	3.2	21.83	0.11
2	Kollam	33	0.75	5.12	0.02
3	Pathanamthitta	28	0.91	6.21	0.03
4	Alappuzha	18	1	6.82	0.06
5	Kottayam	14	2.39	16.3	0.17
6	Idukki	6	1.54	10.5	0.26
7	Ernakulam	11	1.08	7.37	0.1
8	Thrissur	24	1.31	8.94	0.05
9	Palakkad	2	0.24	1.64	0.12
10	Malappuram	8	0.24	1.64	0.03
11	Kozhikode	20	1.17	7.98	0.06
12	Wayanad				
13	Kannur	13	0.53	3.62	0.04
14	Kasargod	6	0.3	2.05	0.05
	State	211	14.66	100	0.07

**A1.15. District wise Area and number of holding under Cowpea (Autumn)
during 2023-24**

Sl. No	District	Sample Size	Area under the crop in the sample (ha)	percentage Area	Average Area per holding (ha)
1	Thiruvananthapuram	30	4.53	16.44	0.15
2	Kollam	40	1.27	4.61	0.03
3	Pathanamthitta	31	2.52	9.15	0.08
4	Alappuzha	43	2.47	8.97	0.06
5	Kottayam	30	4.04	14.66	0.13
6	Idukki				
7	Ernakulam	6	0.38	1.38	0.06
8	Thrissur	30	4.6	16.7	0.15
9	Palakkad	20	2.84	10.31	0.14
10	Malappuram	20	3.26	11.83	0.16
11	Kozhikode	7	0.51	1.85	0.07
12	Wayanad				
13	Kannur	20	1.13	4.1	0.06
14	Kasargod				
	State	277	27.55	100	0.1

**A1.16. District wise Area and number of holding under Cowpea (Winter)
during 2023-24**

Sl. No	District	Sample Size	Area under the crop in the sample (ha)	percentage Area	Average Area per holding (ha)
1	Thiruvananthapuram	30	4.03	13.11	0.13
2	Kollam	40	1.52	4.94	0.04
3	Pathanamthitta	32	2.42	7.87	0.08
4	Alappuzha	30	1.64	5.34	0.05
5	Kottayam	30	3.71	12.07	0.12
6	Idukki	10	1.62	5.27	0.16
7	Ernakulam	6	0.55	1.79	0.09
8	Thrissur	30	3.58	11.65	0.12
9	Palakkad	20	4.21	13.7	0.21
10	Malappuram	20	3.61	11.74	0.18
11	Kozhikode	8	0.67	2.18	0.08
12	Wayanad	10	1.42	4.62	0.14
13	Kannur	17	1.11	3.61	0.07
14	Kasargod	20	0.65	2.11	0.03
	State	303	30.74	100	0.1

A1.17. District wise Area and number of holding under Cowpea (Summer) during 2023-24

Sl. No	District	Sample Size	Area under the crop in the sample (ha)	percentage Area	Average Area per holding (ha)
1	Thiruvananthapuram	30	3.02	11.52	0.1
2	Kollam	35	1.08	4.12	0.03
3	Pathanamthitta	36	2.25	8.58	0.06
4	Alappuzha	39	1.81	6.9	0.05
5	Kottayam	30	4.05	15.45	0.14
6	Idukki	10	3.26	12.43	0.33
7	Ernakulam	6	0.51	1.95	0.09
8	Thrissur	28	3.1	11.82	0.11
9	Palakkad	5	0.34	1.3	0.07
10	Malappuram	20	2.15	8.2	0.11
11	Kozhikode	20	1.76	6.71	0.09
12	Wayanad	10	1.01	3.85	0.1
13	Kannur	15	1.08	4.12	0.07
14	Kasargod	16	0.8	3.05	0.05
	State	300	26.22	100	0.09

A1.18. District wise Area and number of holding under Cardamom during 2023-24

Sl. No	District	Sample Size	Area under the crop in the sample (ha)	percentage Area	Average Area per holding (ha)
1	Idukki	7	4.19	18.15	0.6
2	Palakkad	10	11.3	48.96	1.13
3	Wayanad	15	7.59	32.89	0.51
	State	32	23.08	100	0.72

**A1.19. District wise Area and number of holding under Ash Gourd (Autumn)
during 2023-24**

Sl. No	District	Sample Size	Area under the crop in the sample (ha)	percentage Area	Average Area per holding (ha)
1	Thiruvananthapuram				
2	Kollam	3	0.06	0.46	0.02
3	Pathanamthitta	6	0.16	1.22	0.03
4	Alappuzha	5	0.16	1.22	0.03
5	Kottayam	6	0.24	1.83	0.04
6	Idukki				
7	Ernakulam	4	0.81	6.17	0.2
8	Thrissur	30	4.72	35.95	0.16
9	Palakkad	19	3.42	26.05	0.18
10	Malappuram	11	2.21	16.83	0.2
11	Kozhikode	6	0.45	3.43	0.08
12	Wayanad				
13	Kannur	12	0.9	6.85	0.08
14	Kasargod				
	State	102	13.13	100	0.13

**A1.20. District wise Area and number of holding under Ash Gourd (Winter)
during 2023-24**

Sl. No	District	Sample Size	Area under the crop in the sample (ha)	percentage Area	Average Area per holding (ha)
1	Thiruvananthapuram				
2	Kollam	3	0.06	0.69	0.02
3	Pathanamthitta	2	0.06	0.69	0.03
4	Alappuzha				
5	Kottayam	6	0.39	4.46	0.07
6	Idukki				
7	Ernakulam	2	0.18	2.06	0.09
8	Thrissur	30	2.26	25.86	0.08
9	Palakkad	13	2.04	23.34	0.16
10	Malappuram	11	1.1	12.59	0.1
11	Kozhikode	5	0.22	2.52	0.04
12	Wayanad				
13	Kannur	14	0.66	7.55	0.05
14	Kasargod	19	1.76	20.14	0.09
	State	105	8.74	100.00	0.08

A1.21. District wise Area and number of holding under Ash gourd - Summer during 2023-24

Sl.No	District	No of selected Holdings	Area under the crop in the sample (ha)	Percentage Area	Average Area Per holding (ha)
1	Thiruvananthapuram				
2	Kollam	2	0.04	0.47	0.02
3	Pathanamthitta	2	0.06	0.71	0.03
4	Alappuzha	7	0.2	2.37	0.03
5	Kottayam	2	0.06	0.71	0.03
6	Idukki				
7	Ernakulam	5	0.63	7.46	0.13
8	Thrissur	30	1.44	17.04	0.05
9	Palakkad	2	0.1	1.18	0.05
10	Malappuram	25	2.11	24.97	0.08
11	Kozhikode	20	1.19	14.08	0.06
12	Wayanad				
13	Kannur	12	0.87	10.3	0.07
14	Kasargod	12	1.74	20.59	0.15
	state	119	8.45	100	0.07

A1.22. District wise Area and number of holding under Cucumber (Autumn) during 2023-24

Sl. No	District	Sample Size	Area under the crop in the sample (ha)	percentage Area	Average Area per holding (ha)
1	Thiruvananthapuram	30	5.87	35.55	0.2
2	Kollam	7	0.16	0.97	0.02
3	Pathanamthitta	9	0.38	2.3	0.04
4	Alappuzha	11	0.37	2.24	0.03
5	Kottayam	14	0.99	6	0.07
6	Idukki				
7	Ernakulam	9	1.26	7.63	0.14
8	Thrissur	30	2.02	12.24	0.07
9	Palakkad	4	0.51	3.09	0.13
10	Malappuram	15	2.2	13.33	0.15
11	Kozhikode	4	0.2	1.21	0.05
12	Wayanad				
13	Kannur	19	2.54	15.38	0.13
14	Kasargod				
	State	152	16.51	100	0.11

**A1.23. District wise Area and number of holding under Cucumber (Winter)
during 2023-24**

Sl. No	District	Sample Size	Area under the crop in the sample (ha)	percentage Area	Average Area per holding (ha)
1	Thiruvananthapuram	30	3.89	22.68	0.13
2	Kollam	5	0.1	0.58	0.02
3	Pathanamthitta	6	0.28	1.63	0.05
4	Alappuzha	7	0.42	2.45	0.06
5	Kottayam	15	3.18	18.54	0.21
6	Idukki	1	0.12	0.7	0.12
7	Ernakulam	6	0.71	4.14	0.12
8	Thrissur	30	1.54	8.98	0.05
9	Palakkad	5	0.85	4.96	0.17
10	Malappuram	18	2.25	13.12	0.13
11	Kozhikode	3	0.59	3.44	0.2
12	Wayanad				
13	Kannur	17	1.25	7.29	0.07
14	Kasargod	20	1.98	11.55	0.1
	State	163	17.15	100	0.11

**A1.24. District wise Area and number of holding under Cucumber (Summer)
during 2023-24**

Sl. No	District	Sample Size	Area under the crop in the sample (ha)	percentage Area	Average Area per holding (ha)
1	Thiruvananthapuram	30	3.13	15.14	0.1
2	Kollam	10	0.21	1.02	0.02
3	Pathanamthitta	5	0.22	1.06	0.04
4	Alappuzha	19	1.06	5.13	0.06
5	Kottayam	14	1.6	7.74	0.11
6	Idukki	1	0.12	0.58	0.12
7	Ernakulam	11	1.34	6.48	0.12
8	Thrissur	30	1.57	7.59	0.05
9	Palakkad	3	0.11	0.53	0.04
10	Malappuram	27	2	9.67	0.07
11	Kozhikode	20	1.76	8.51	0.09
12	Wayanad				
13	Kannur	15	2.35	11.36	0.16
14	Kasargod	19	5.21	25.19	0.27
	State	204	20.68	100	0.1

**A1.25. District wise Area and number of holding under Snake Gourd (Autumn)
during 2023-24**

Sl. No	District	Sample Size	Area under the crop in the sample (ha)	percentage Area	Average Area per holding (ha)
1	Thiruvananthapuram	30	3.35	13.46	0.11
2	Kollam	17	0.63	2.53	0.04
3	Pathanamthitta	28	2.82	11.33	0.1
4	Alappuzha	28	1.86	7.48	0.07
5	Kottayam	30	3.6	14.47	0.12
6	Idukki				
7	Ernakulam	11	1.89	7.6	0.17
8	Thrissur	30	3.87	15.55	0.13
9	Palakkad	12	4.49	18.05	0.37
10	Malappuram	15	1.7	6.83	0.11
11	Kozhikode	2	0.08	0.32	0.04
12	Wayanad				
13	Kannur	7	0.59	2.37	0.08
14	Kasargod				
	State	210	24.88	100	0.12

**A1.26. District wise Area and number of holding under Snake Gourd (Winter)
during 2023-24**

Sl. No	District	Sample Size	Area under the crop in the sample (ha)	percentage Area	Average Area per holding (ha)
1	Thiruvananthapuram	28	3.2	12.69	0.11
2	Kollam	11	0.33	1.31	0.03
3	Pathanamthitta	29	1.84	7.3	0.06
4	Alappuzha	24	1.38	5.47	0.06
5	Kottayam	30	4.6	18.24	0.15
6	Idukki	5	0.49	1.94	0.1
7	Ernakulam	10	1.07	4.24	0.11
8	Thrissur	30	5.1	20.22	0.17
9	Palakkad	16	5.57	22.09	0.35
10	Malappuram	15	1.16	4.6	0.08
11	Kozhikode	2	0.12	0.48	0.06
12	Wayanad				
13	Kannur	8	0.27	1.07	0.03
14	Kasargod	3	0.1	0.4	0.03
	State	211	25.22	100	0.12

**A1.27. District wise Area and number of holding under Snake Gourd (Summer)
during 2023-24**

Sl. No	District	Sample Size	Area under the crop in the sample (ha)	percentage Area	Average Area per holding (ha)
1	Thiruvananthapuram	29	3.11	15.73	0.11
2	Kollam	15	0.34	1.72	0.02
3	Pathanamthitta	32	1.68	8.5	0.05
4	Alappuzha	32	2.06	10.42	0.06
5	Kottayam	30	3.74	18.92	0.12
6	Idukki	4	1.64	8.3	0.41
7	Ernakulam	11	1.49	7.54	0.14
8	Thrissur	28	3.73	18.87	0.13
9	Palakkad	2	0.26	1.32	0.13
10	Malappuram	13	1.1	5.56	0.08
11	Kozhikode	14	0.36	1.82	0.03
12	Wayanad				
13	Kannur	6	0.19	0.96	0.03
14	Kasargod	1	0.06	0.3	0.06
	State	217	19.77	100	0.09

**A1.28. District wise Area and number of holding under Ladies Finger (Autumn)
during 2023-24**

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	2.43	15.69	0.08
2	Kollam	10	0.32	2.07	0.03
3	Pathanamthitta	7	0.47	3.03	0.07
4	Alappuzha	16	0.57	3.68	0.04
5	Kottayam	15	1.5	9.68	0.1
6	Idukki				
7	Ernakulam	8	1.34	8.65	0.17
8	Thrissur	30	1.6	10.33	0.05
9	Palakkad	20	2.34	15.11	0.12
10	Malappuram	20	3.02	19.5	0.15
11	Kozhikode	9	0.77	4.97	0.09
12	Wayanad				
13	Kannur	16	1.12	7.23	0.07
14	Kasargod				
	Total	181	15.49	100	0.09

**A1.29. District wise Area and number of holding under Ladies Finger(Winter)
during 2023-24**

Sl. No	District	Sample Size	Area under the crop in the sample (ha)	percentage Area	Average Area per holding (ha)
1	Thiruvananthapuram	30	2.19	12.18	0.07
2	Kollam	9	0.18	1	0.02
3	Pathanamthitta	4	0.1	0.56	0.03
4	Alappuzha	13	0.64	3.56	0.05
5	Kottayam	11	1.15	6.4	0.1
6	Idukki	7	1	5.56	0.14
7	Ernakulam	6	0.55	3.06	0.09
8	Thrissur	30	2.11	11.74	0.07
9	Palakkad	20	3.42	19.02	0.17
10	Malappuram	18	2.45	13.63	0.14
11	Kozhikode	10	0.87	4.84	0.09
13	Kannur	15	1.17	6.51	0.08
14	Kasargod	20	2.15	11.96	0.11
	State	193	17.98	100	0.09

**A1.30. District wise Area and number of holding under Ladies Finger (Summer)
during 2023-24**

Sl. No	District	Sample Size	Area under the crop in the sample (ha)	percentage Area	Average Area per holding (ha)
1	Thiruvananthapuram	29	1.57	11.89	0.05
2	Kollam	10	0.2	1.52	0.02
3	Pathanamthitta	4	0.18	1.36	0.05
4	Alappuzha	10	0.58	4.39	0.06
5	Kottayam	8	0.4	3.03	0.05
6	Idukki	4	1.09	8.26	0.27
7	Ernakulam	9	0.45	3.41	0.05
8	Thrissur	30	2.09	15.83	0.07
9	Palakkad	10	1.42	10.76	0.14
10	Malappuram	20	1.48	11.21	0.07
11	Kozhikode	20	1.23	9.32	0.06
13	Kannur	17	1.26	9.55	0.07
14	Kasargod	15	1.25	9.47	0.08
	State	186	13.2	100	0.07

**A1.31. District wise Area and number of holding under Cabbage (Winter)
during 2023-24**

Sl. No	District	Sample Size	Area under the crop in the sample (ha)	percentage Area	Average Area per holding (ha)
1	Idukki	3	0.16	100	0.05
	State	3	0.16	100	0.05

**A1.32. District wise Area and number of holding under Tomato (Autumn)
during 2023-24**

SL No	District	No of selected Holdings	Area under the crop in the sample (ha)	Percentage Area	Average Area Per Holding (ha)
1	Pathanamthitta	8	0.36	7.29	0.05
2	Alappuzha	2	0.1	2.02	0.05
3	Palakkad	20	4.47	90.49	0.22
	Total	30	4.94	100	0.16

**A1.33. District wise Area and number of holding under Tomato (Winter) during
2023-24**

Sl.No	District	No of selected Holdings	Area under the crop in the sample (ha)	Percentage Area	Average Area Per holding (ha)
1	Palakkad	18	4.49	100	0.25
	Total	18	4.49	100	0.25

**A1.34. District wise Area and number of holding under Tomato(Summer)
during 2023-24**

Sl.No	District	No of selected Holdings	Area under the crop in the sample (ha)	Percentage Area	Average Area Per holding (ha)
1	Pathanamthitta	1	0.03	1.49	0.03
2	Idukki	1	0.02	0.99	0.02
3	Palakkad	10	1.96	97.03	0.2
	Total	12	2.02	100	0.17

**A1.36. District wise Area and number of holding under Beans - Summer during
2023-24**

Sl.No	District	No of selected Holdings	Area under the crop in the sample (ha)	Percentage Area	Average Area Per holding (ha)
1	Kozhikode	1	0.02	100	0.02
	Total	1	0.02	100	0.02

A2.1 District wise Cost of Cultivation (In Rs.) Per Hectare of Paddy Autumn during 2023 – 2024

Sl. No	Components	Thiruvananthapuram	Kollam	Pathanamthitta	Alappuzha	Kottayam	Idukki	Ernakulam	Thrissur	Palakkad	Malappuram	Kozhikode	Kannur	Kasargod
1	Hired human labour	49891	63041	41925	33943	30124	25033	19000	18706	25813	29893	28959	40494	38499
2	Animal labour													
3	Machine labour	8345	13026	15968	11108	11089	16679	18747	14899	14292	23750	8897	15104	25203
4	Seed /seedlings	2629	3989	4245	9737	4425	2567	3286	3862	3797	3280	4600	2994	2353
5	Farmyard manure and chemical fertilizers	7953	10661	12761	9274	5354	9042	4939	9762	14614	10764	7786	8905	17433
6	Plant Protection	667	362	800	4401	8007	648	1126	993	4176	2119	7		152
7	Land tax and irrigation cess	510	376	58	501	247	52	75	207	236	69	436	513	462
8	Repair and maintenance charges of implements, machinery and building	498	1200	476	1892	142	66	1831	20	35	53	467	42	434

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Sl. No	Components	Thiruvananthapuram	Kollam	Pathanamthitta	Alappuzha	Kottayam	Idukki	Ernakulam	Thrissur	Palakkad	Malappuram	Kozhikode	Kannur	Kasargod
9	Interest on working capital	6948	9108	7570	6846	5900	5397	4710	4822	6269	6981	5025	6750	8364
10	Other expenses	16678	9030	11726	11546	10606	3271	14597	14819	2937	13869	9322	17563	2300
11	Total cost 'A'(1-10)	94119	110794	95529	89248	75893	62754	68310	68091	72170	90777	65500	92364	95200
12	Interest on fixed capital	492	698	227	167	168	379	16326	271	12020	2125	311	148	1682
13	Cost 'B1'(11+12)	94611	111491	95756	89416	76061	63133	84636	68362	84190	92902	65811	92512	96881
14	Interest on land value	737743	80622	168865	192332	244028	501165	469194	628021	141191	257193	778665	198099	156972
15	Cost 'B'(13+14)	832354	192114	264621	281748	320089	564298	553829	696383	225381	350094	844477	290611	253854
16	Imputed value of household labour	25848	11709	7995	3135	14058	4436	6647	5267	3654	4306	7313	11159	14201
17	Cost 'C'(15+16)	858202	203823	272616	284882	334147	568734	560476	701651	229035	354400	851789	301770	268055

A2.2 District wise Cost of Cultivation (In Rs.) Per Hectare of Paddy Winter during 2023-24

SLNo	Components	Thiruvananthapuram	Kollam	Pathanamthitta	Alappuzha	Kottayam	Idukki	Ernakulam	Thrissur	Palakkad	Malappuram	Kozhikode	Wayanad	Kannur	Kasargod
1	Hired human labour	57019	69506	25817	20999	26700	31661	14008	21183	25152	35848	27880	52299	47461	36902
2	Animal labour														
3	Machine labour	6345	11923	14458	8541	9261	15859	28395	22014	15399	23119	12575	15792	14882	27514
4	Seed /seedlings	3159	3735	3998	4457	5054	5766	3352	3399	3479	3004	3597	5515	3043	2587
5	Farmyard manure and chemical fertilizers	8016	12068	9818	6981	6279	8994	7534	9623	8715	11069	14038	14017	13696	14317
6	Plant Protection	638	725	931	3789	8446	402	2021	891	3182	1213	28	438	54	805
7	Land tax and irrigation cess	333	407	19	451	49	317	151	165	921	50	309	804	427	296
8	Repair and maintenance charges of implements, machinery and building	127	1398	162	679	59	140	294	3		125	213	1265	62	71

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Sl.No	Components	Thiruvananthapuram	Kollam	Pathanamthitta	Alappuzha	Kottayam	Idukki	Ernakulam	Thrissur	Palakkad	Malappuram	Kozhikode	Wayanad	Kannur	Kasargod
9	Interest on working capital	7518	9796	5502	4477	5574	6268	5531	5711	5593	7425	5812	8806	7914	8212
10	Other expenses	22097	9815	12179	8153	10569	12630	17313	16482	3724	20156	5888	21131	17335	4201
11	Total cost 'A'(1-10)	105251	119372	72886	58527	71990	82036	78598	79471	66165	102009	70340	120068	104874	94906
12	Interest on fixed capital	538	746	90	133	179	274	736	162	6268	2773	1906	1933	408	4658
13	Cost 'B1'(11+12)	105789	120118	72976	58661	72169	82310	79334	79633	72432	104782	72246	122001	105282	99564
14	Interest on land value	417837	79178	229875	98540	214080	858458	1546736	532094	144357	417353	506231	135852	185322	223219
15	Cost 'B'(13+14)	523626	199295	302852	157201	286250	940768	1626070	611726	216789	522135	578477	257853	290605	322784
16	Imputed value of household labour	27814	15496	5063	1854	15072	4288	7773	4906	2103	3967	8826	16126	12055	15070
17	Cost 'C'(15+16)	551440	214792	307915	159055	301321	945056	1633843	616632	218893	526102	587303	273980	302659	337854

A2.3 District wise Cost of Cultivation (In Rs.) Per Hectare of Paddy Summer during 2023 – 2024

Sl.No	Components	Thiruvananthapuram	Kollam	Pathanamthitta	Alappuzha	Kottayam	Idukki	Ernakulam	Thrissur	Palakkad	Malappuram	Kozhikode	Wayanad	Kannur	Kasargod
1	Hired human labour	64176	65096	19068	20874	36324	19725	11131	18714	25848	32041	34228	92883	75663	24564
2	Animal labour														
3	Machine labour	10993	10638	9546	16119	6261	26582	28727	20140	14377	20116	10694	18326		28819
4	Seed /seedlings	3682	3266	4071	8638	4469	5489	3066	3442	3837	2529	3143	5974	3252	2953
5	Farmyard manure and chemical fertilizers	13190	9775	7678	7552	6468	4705	6938	12028	10253	11639	10150	22288	19579	16018
6	Plant Protection	797	364	850	3181	5435	1176	2521	813	4115	1060	270	180		177
7	Land tax and irrigation cess	729	469	4	592	15		178	244	986	70	186	796	1001	416
8	Repair and maintenance charges of implements, machinery and building	525	670	44	576	139	39	92	1		170	113	349		200

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Sl.No	Components	Thiruvananthapuram	Kollam	Pathanamthitta	Alappuzha	Kottayam	Idukki	Ernakulam	Thrissur	Palakkad	Malappuram	Kozhikode	Wayanad	Kannur	Kasargod
9	Interest on working capital	9284	8914	4121	5636	5896	5768	5238	5514	5843	6738	5848	13965	9849	7253
10	Other expenses	13514	14611	15658	10436	17592	21563	17283	14957	3315	23388	18411	23305	7582	3571
11	Total cost 'A'(1-10)	116889	113804	61040	73604	82599	85047	75174	75853	68573	97751	83043	178066	116925	83973
12	Interest on fixed capital	784	400	24	386	84	50	529	177	8614	1818	948	953	403	8069
13	Cost 'BI'(11+12)	117672	114204	61065	73990	82683	85097	75704	76030	77187	99569	83990	179019	117329	92042
14	Interest on land value	430986	125899	145548	136572	640787	448800	839977	385076	145839	337931	279804	101974	117403	316440
15	Cost 'B'(13+14)	548658	240103	206612	210561	723470	533897	915681	461106	223026	437500	363795	280993	234732	408483
16	Inputed value of household labour	33192	12093	3416	2087	5905		8546	4540	4108	4936	7862	18815	32438	23349
17	Cost 'C'(15+16)	581851	252197	210028	212648	729374	533897	924227	465647	227133	442436	371657	299808	267170	431831

A2.4 District wise Cost of Cultivation (In Rs.) Per Hectare of Coconut during 2023-24

Sl. No	Components	District													
		Thiruvananthapuram	Kollam	Pathanamthitta	Alappuzha	Kottayam	Idukki	Ernakulam	Thrissur	Palakkad	Malappuram	Kozhikode	Wayanad	Kannur	Kasargod
1	Hired human labour	82519	51577	52344	47185	57875	56914	37735	59408	38086	81064	59372	46566	83735	72653
2	Animal labour														
3	Machine labour				677					1237	1840				4891
4	Seed /seedlings			64	252	498			828						34
5	Farmyard manure and chemical fertilizers	21753	14917	22313	9242	29802	8028	7542	24445	19396	34039	31408	25648	36924	34168
6	Plant Protection			350	17	42					37				
7	Land tax and irrigation cess	1787	295	832	670	232	515	281	1081	1476	775	740	799	920	837
8	Repair and maintenance charges of implements, machinery and building	179	1568	1233	190	344	105	296	6	231	485	244	1880	20	185

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Sl. No	Components	Thiruvananthapuram	Kollam	Pathanamthitta	Alappuzha	Kottayam	Idukki	Ernakulam	Thrissur	Palakkad	Malappuram	Kozhikode	Wayanad	Kannur	Kasargod
9	Interest on working capital	10427	6649	7507	5737	8822	6494	4528	8468	5872	11698	9078	7221	12066	11175
10	Other expenses	5515		5723	3951	3647	2214	4197	5174	8106	4161	4518	1475	7265	3866
11	Total cost 'A'(1-10)	122181	75006	90367	67921	101261	74270	54579	99410	74402	134099	105360	83589	140929	127808
12	Interest on fixed capital	380	949	553	1234	213	275	619	1760	17029	10084	113	2156	5667	17496
13	Cost 'B1'(11+12)	122561	75955	90920	69155	101474	74545	55198	101171	91431	144182	105474	85745	146596	145305
14	Interest on land value	1507184	349825	443089	1119075	1357217	928461	4375133	1117601	360751	971381	738231	239362	376225	254949
15	Cost 'B'(13+14)	1629745	425780	534008	1188231	1458692	1003006	4430331	1218772	452182	1115563	843705	325108	522822	400253
16	Imputed value of household labour	17934	12289	5441	6017	9602		4215	10834	3315	7668	8063	10322	10759	12227
17	Cost 'C'(15+16)	1647679	438069	539449	1194247	1468294	1003006	4434545	1229605	455497	1123231	851767	335430	533581	412480

A2.5 District wise Cost of Cultivation (In Rs.) Per Hectare of Arecanut during 2023-24

Sl. No	Components	Thiruvananthapuram	Kollam	Pathanamthitta	Alappuzha	Kottayam	Idukki	Ernakulam	Thrissur	Palakkad	Malappuram	Kozhikode	Wayanad	Kannur	Kasaragod
1	Hired human labour	41134	53440	45594	31045	35556	45405	131465	109955	68574	83805	85730	50120	132597	110583
2	Animal labour														
3	Machine labour										2024			6798	11498
4	Seed /seedlings										125	420			
5	Farmyard manure and chemical fertilizers	24112	11208	22460	8487	6431	9959	11152	41999	113471	25460	37734	18968	33690	73361
6	Plant Protection										2101				
7	Land tax and irrigation cess	1686	556	682	647	649	111	325	888	1781	699	715	720	864	905
8	Repair and maintenance charges of implements, machinery and building	189	5685	3903	6	1313		340	11	529	734	656	619	13	69

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Sl. No	Components	Thiruvananthapuram	Kollam	Pathanamthitta	Alappuzha	Kottayam	Idukki	Ernakulam	Thrissur	Palakkad	Malappuram	Kozhikode	Wayanad	Kannur	Kasaragod
9	Interest on working capital	6525	6465	6805	3953	4199	5536	14262	15195	18204	11351	12388	6909	17309	19544
10	Other expenses	2569	170	4257	3951	2846	38	8864	6524	3722	7567	9426	3364	27079	6740
11	Total cost 'A'(1-10)	76215	77524	83701	48089	50993	61049	166408	174573	206281	133866	147069	80699	218351	222701
12	Interest on fixed capital	775	2539	1964	2113	694	62	848	4474	26626	10457	334	1087	7653	21737
13	Cost 'B1'(11+12)	76990	80063	85665	50202	51687	61111	167257	179047	232907	144323	147402	81786	226004	244438
14	Interest on land value	1451395	357107	404941	1614961	1456776	869783	1694240	1314894	404900	991668	589177	266155	216723	217023
15	Cost 'B'(13+14)	1528386	437170	490606	1665163	1508463	930894	1861497	1493941	637807	1135991	736579	347941	442728	461461
16	Imputed value of household labour	22244	10569	13512	50656	20207		26890	23208	6638	10023	13613	7660	33160	29918
17	Cost 'C'(15+16)	1550629	447739	504118	1715820	1528670	930894	1888387	1517149	644445	1146014	750192	355601	475888	491379

A2.6 District wise Cost of Cultivation (In Rs.) Per Hectare of Tapioca during 2023 – 2024

Sl. No	Components	Thiruvananthapuram	Kollam	Pathanamthitta	Alappuzha	Kottayam	Idukki	Ernakulam	Thrissur	Palakkad	Malappuram	Kozhikode	Wayanad	Kannur	Kasargod
1	Hired human labour	74702	82436	86951	60083	77390	75824	169031	73144	45379	71088	85365	76516	105959	47995
2	Animal labour														
3	Machine labour				4137		35839	11597		9767	1595	5287		12233	3585
4	Seed /seedlings	3694	11015	8390	14702	5005	13926	14880	15944	28687	6631	30271	3016	27504	10029
5	Farmyard manure and chemical fertilizers	32677	20680	73837	33315	35367	6777	69250	22266	28297	22249	53472	6623	38041	19144
6	Plant Protection	460		696	1065	33		503		2650	202		29	7669	835
7	Land tax and irrigation cess	755	320	202	331	317	387	237	210	815	123	356	789	240	387
8	Repair and maintenance charges of implements, machinery and building	89	2663	1115	1163	513	242	344	6	141	151	513	460	438	137

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Sl. No	Components	Thiruvananthapuram	Kollam	Pathanamthitta	Alappuzha	Kottayam	Idukki	Ernakulam	Thrissur	Palakkad	Malappuram	Kozhikode	Wayanad	Kannur	Kasargod
9	Interest on working capital	11153	11413	16987	11330	11779	13237	26526	11135	11478	10176	17439	8618	19141	8159
10	Other expenses	19492	9880	20032	16424	11052	3794	20375	16790	15749	25609	20470	9807	18072	5083
11	Total cost 'A' (1-10)	143020	138408	208210	142551	141455	150026	312743	139496	142963	137824	213173	105859	229297	95355
12	Interest on fixed capital	527	1354	656	12365	373	144	3512	885	19975	8719	262	923	7167	1468
13	Cost 'B1'(11+12)	143547	139762	208866	154916	141828	150170	316255	140381	162938	146542	213435	106782	236464	96823
14	Interest on land value	653405	137243	428587	650611	1373406	1282705	2022745	701587	265070	554167	500320	141697	183666	259451
15	Cost 'B'(13+14)	796953	277005	637453	805527	1515233	1432875	2339000	841969	428008	700710	713756	248479	420130	356273
16	Inputed value of household labour	69745	27605	69739	86233	41153	4181	15617	32870	9742	26205	15452	16186	45074	76394
17	Cost 'C'(15+16)	866698	304610	707192	891760	1556387	1437057	2354616	874839	437749	726914	729208	264665	465204	432667

A2.7 District wise Cost of Cultivation (In Rs.) Per Hectare of Banana during 2023-24

Sl. No	Components	Thiruvananthapuram	Kollam	Pathanamthitta	Alappuzha	Kottayam	Idukki	Ernakulam	Thrissur	Palakkad	Malappuram	Kozhikode	Wayanad	Kannur	Kasaragod
1	Hired human labour	97088	122794	76230	59789	78237	97781	204614	79210	57957	79400	96597	116268	117900	58208
2	Animal labour														
3	Machine labour				4550			151	8203	2852	1021	5076		13970	2795
4	Seed /seedlings	24620	34744	28587	28319	15705	49116	26299	37682	25866	31562	41748	32326	39645	31645
5	Farmyard manure and chemical fertilizers	64417	45182	44857	70851	23762	15959	25131	67763	84634	68158	88732	5198	67789	83161
6	Plant Protection		656	754	2812	8282	1529	1096	2985	1338	2048	841	2277	22738	11210
7	Land tax and irrigation cess	582	385	2091	413	187	323	256	338	904	24	19	696	367	529
8	Repair and maintenance charges of implements, machinery and building	60	3110	1376	1208	418	431	1415	3	257	720	3765	625	215	210
9	Interest on working capital	18612	20338	15043	16632	12599	16438	25729	19584	17265	18219	23299	15607	26204	18702
10	Other expenses	28176	14973	48876	38258	11513	11958	55454	98970	17768	87918	48737	17825	22572	24067
11	Total cost 'A'(1-10)	233554	242183	217814	222833	150703	193535	340144	314738	208841	289070	308814	190821	311399	230527
12	Interest on fixed capital	425	1417	699	8989	393	341	8224	1657	22164	9444	3532	2106	7576	42335
13	Cost 'B1'(11+12)	233979	243601	218513	231822	151096	193876	348368	316395	231005	298514	312347	192927	318975	272862
14	Interest on land value	428633	182251	374831	524963	1294751	1392307	1984156	1265770	285850	772919	327185	138959	199641	257079
15	Cost 'B'(13+14)	662612	425852	593343	756786	1445847	1586183	2332524	1582165	516855	1071433	639532	331886	518616	529941
16	Imputed value of household labour	91771	29335	56749	77608	65361	-	31522	62066	19645	45038	42237	23195	43224	151160
17	Cost 'C'(15+16)	754383	455186	650092	834394	1511208	1586183	2364046	1644232	536501	1116471	681768	355081	561840	681100

A2.8 District wise Cost of Cultivation (In Rs.) Per Hectare of Pepper during 2023-24

Sl. No	Components	Thiruvananthapuram	Kollam	Pathanamthitta	Alappuzha	Kottayam	Idukki	Ernakulam	Thrissur	Palakkad	Malappuram	Kozhikode	Wayanad	Kannur	Kasaragod
1	Hired human labour	48618	98923	48138	35428	68559	55210	38657	86602	74640	45925	63065	51140	139593	53245
2	Animal labour														
3	Machine labour														283
4	Seed /seedlings			1573					1922		1521	531	2747		
5	Farmyard manure and chemical fertilizers	14087	19926	26199	20055	26341	4721	2671	18247	20872	20481	30595	11652	43381	45282
6	Plant Protection			69		231				5781	1728			1874	1107
7	Land tax and irrigation cess	1692	459	668	485	637	312	378	727	1635	771	758	804	1066	918
8	Repair and maintenance charges of implements, machinery and building	66	9368	2427	303	1371	56	1231		101	1747	914	199	85	272
9	Interest on working capital	6270	11885	7598	5548	9513	5993	4133	10677	10129	6965	9419	6554	18485	9992
10	Other expenses	2690	3609	4124	4052	5979	842	11258	8094	2263	5630	317	1185	8879	5124
11	Total cost 'A'(1-10)	73423	144169	90795	65871	112632	67134	58327	126269	115421	84768	105599	74281	213363	116222
12	Interest on fixed capital	906	4531	1499	10282	759	249	11753	6017	13383	21634	429	878	7923	60845
13	Cost 'B1'(11+12)	74328	148700	92295	76153	113391	67383	70079	132287	128804	106402	106028	75159	221286	177067
14	Interest on land value	1193910	371856	754222	961607	1559281	1737852	3084019	901489	503297	868514	520330	324576	298998	282223
15	Cost 'B'(13+14)	1268238	520556	846516	1037760	1672672	1805235	3154098	1033776	632101	974916	626358	399736	520283	459290
16	Inputed value of household labour	50635	45316	32323	82256	21826		39927	47859	14590	26267	19760	16459	40054	44074
17	Cost 'C'(15+16)	1318873	565872	878839	1120015	1694499	1805235	3194025	1081635	646691	1001184	646118	416195	560338	503363

A2.9 District wise Cost of Cultivation (In Rs.) Per Hectare of Ginger during 2023-24

Sl. No	Components	Thiruvananthapuram	Kollam	Pathanamthitta	Alappuzha	Kottayam	Idukki	Ernakulam	Thrissur	Palakkad	Malappuram	Kozhikode	Wayanad	Kannur	Kasargod
1	Hired human labour	42641	143565	57846	82719	95285	70128	97241	67774	51883	61635	85586	191362	84484	66838
2	Animal labour														
3	Machine labour							11324		7374	4117			10082	8102
4	Seed /seedlings	50272	84049	75557	43534	65794	53474	156447	74898	142364	66846	56784	263479	64567	80959
5	Farmyard manure and chemical fertilizers	38126	21111	44996	19483	27470	9931	46726	33377	19760	58883	41797	23059	57218	36449
6	Plant Protection		244	451	244	6103			1487	3333	519	331	1608		
7	Land tax and irrigation cess	800	526	636	821	725	23	439	537	988	657	592	802	674	591
8	Repair and maintenance charges of implements, machinery and building	274	7904	2848	132	1345	891	287	6	19	494	1725	865	235	
9	Interest on working capital	13104	24897	17885	14598	19465	13353	31174	17754	22471	19200	18450	47951	21635	19235
10	Other expenses	15797	9896	6930	13671	10358	12732	27675	11193	8229	11477	10264	17869	33001	13229
11	Total cost 'A'(1-10)	161013	292192	207149	175202	226545	160532	371312	207028	256421	223828	215528	546995	271897	225402
12	Interest on fixed capital	2098	3164	1590	5934	1316	674	1156	572	10626	2020	958	1043	981	2066
13	Cost 'B1'(11+12)	163112	295356	208739	181136	227861	161207	372468	207599	267047	225848	216486	548038	272878	227469
14	Interest on land value	757647	323440	530518	1593954	1365370	587359	6711338	834298	157347	593263	417655	181742	203296	211727
15	Cost 'B'(13+14)	920759	618796	739257	1775090	1593231	748566	7083806	1041897	424394	819111	634142	729780	476174	439196
16	Inputed value of household labour	111527	31079	68905	71417	62966	5602	105504	72340	5364	103452	75665	42213	86926	62476
17	Cost 'C'(15+16)	1032286	649875	808163	1846508	1656197	754168	7189310	1114238	429758	922563	709807	771993	563100	501672

A2.10 District wise Cost of Cultivation (In Rs.) Per Hectare of Turmeric during 2023-24

Sl.No	Components	Thiruvananthapuram	Kollam	Pathanamthitta	Alappuzha	Kottayam	Idukki	Ernakulam	Thrissur	Palakkad	Malappuram	Kozhikode	Wayanad	Kannur	Kasargod
1	Hired human labour	47516	134529	34085	103040	64832	113488	125176	60683	59901	37848	59055	101772	74971	48867
2	Animal labour														
3	Machine labour				484			8180		10089	1456			4366	7894
4	Seed /seedlings	25351	13342	24288	35219	24848	44989	74585	27166	29722	35187	42919	70009	37171	56161
5	Farmyard manure and chemical fertilizers	30253	14011	30647	32809	24187	5730	75888	31761	12469	21401	29321	38123	35174	36460
6	Plant Protection				632	1082				1171					
7	Land tax and irrigation cess	1157	461	747	497	710		452	641	1283	266	458	705	697	849
8	Repair and maintenance charges of implements, machinery and building	424	9452	2746	1114	1364		734		80	429	2876	1312	20	140
9	Interest on working capital	10312	16188	8902	17218	11495	16421	28383	11961	11335	9589	13129	20990	15168	14938
10	Other expenses	9764	6495	5153	9974	3082		30638	9246	9992	18942	12551	6484	17816	8073
11	Total cost 'A'(1-10)	124778	194478	106569	200988	131599	180627	344037	141458	136042	125117	160309	239395	185383	173382
12	Interest on fixed capital	1926	3975	1971	21366	1108	826	1176	230	24199	36535	1419	1977	649	2666
13	Cost 'B1'(11+12)	126704	198453	108540	222354	132708	181453	345213	141688	160240	161652	161729	241372	186032	176049
14	Interest on land value	619980	380615	474407	3062670	1401328	1193891	3692084	1186130	167159	660369	676165	263949	540655	212642
15	Cost 'B'(13+14)	746684	579068	582946	3285025	1534035	1375344	4037296	1327818	327399	822021	837894	505322	726687	388691
16	Imputed value of household labour	108870	27893	64415	67302	41048	12923	85127	75012	24480	39120	70556	93158	68232	85180
17	Cost 'C'(15+16)	855554	606961	647361	3352327	1575083	1388268	4122423	1402831	351879	861142	908450	598479	794919	473871

A2.11 District wise Cost of Cultivation (In Rs.) Per Hectare of Pineapple during 2023 – 2024

Sl. No	Components	Thiruvananthapuram	Kollam	Pathanamthitta	Alappuzha	Kottayam	Idukki	Ernakulam	Thrissur	Palakkad	Malappuram	Kozhikode	Kannur	Kasaragod
1	Hired human labour	27787	116845	64658	41507	50328	44326	52276	66332	101454	104364	47650	58236	83665
2	Animal labour													
3	Machine labour				54951		7627	12587	9667		22880	6299	16970	17594
4	Seed /seedlings	143507	97500	20023	62166	88640	37699	149053	98966		56550	97168	64022	109889
5	Farmyard manure and chemical fertilizers	45943	23915	12832	58142	18959	7002	19941	15227	21736	38106	33602	37927	24444
6	Plant Protection		20	11488	1499	8254	1833	12715	5097	2371	6117	51		2476
7	Land tax and irrigation cess		305	22	145	39		156	19			10	49	7
8	Repair and maintenance charges of implements, machinery and building		2257	760		226	48	15	20		1213	27	116	54

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Sl. No	Components	Thiruvananthapuram	Kollam	Pathanamthitta	Alappuzha	Kottayam	Idukki	Ernakulam	Thrissur	Palakkad	Malappuram	Kozhikode	Kannur	Kasaragod
9	Interest on working capital	21724	23828	10900	21826	16618	9849	24657	19529	12556	22802	18477	17715	23807
10	Other expenses	46930	106554	18401	21245	52747	5633	143141	26354	39794	24588	44570	20383	35237
11	Total cost 'A'(1-10)	285891	371224	139084	261481	235812	114016	414541	241212	177912	276620	247853	215419	297171
12	Interest on fixed capital	307	924	363	388	192	95	135	375	1187	3723	24	582	1110
13	Cost 'B1'(11+12)	286199	372148	139447	261870	236005	114111	414676	241587	179099	280342	247877	216001	298281
14	Interest on land value	266760	478919	528259	82981	885656	1006445	1779073	912676	366514	2676960	129803	154511	233981
15	Cost 'B'(13+14)	552959	851067	667706	344850	1121661	1120557	2193749	1154263	545613	2957302	377680	370512	532262
16	Inputed value of household labour	37668	13216	14922	3275	11934		689	3701		4290	4493	3337	1331
17	Cost 'C'(15+16)	590626	864283	682628	348125	1133595	1120557	2194439	1157963	545613	2961592	382173	373848	533593

A2.12 District wise Cost of Cultivation (In Rs.) Per Hectare of Bitter Gourd Autumn during 2023-24

Sl.No	Components	Thiruvananthapuram	Kollam	Pathanamthitta	Alappuzha	Kottayam	Ernakulam	Thrissur	Palakkad	Malappuram	Kozhikode	Kannur
1	Hired human labour	67623	139865	77764	101865	99472	29477	51766	49375	33457		44436
2	Animal labour											
3	Machine labour				1527		4965	2875	14322			3034
4	Seed /seedlings	7350	8083	12712	17991	4772	3017	5678	15485	7527	14079	28796
5	Farmyard manure and chemical fertilizers	57991	36434	21568	30837	24341	26785	21443	14378	20370	29931	35521
6	Plant Protection	2044	1018	3740	13958	5444	728	2921	4133	3729		1214
7	Land tax and irrigation cess	195	490	234	417	314	41	88	707		371	319
8	Repair and maintenance charges of implements, machinery and building	1293	7518	2301	14775	1182	1953	20	10	459	469	728
9	Interest on working capital	13501	18540	11578	16618	13403	6497	8468	9769	6508	4401	11300
10	Other expenses	78429	15169	33820	36599	26280	18971	50869	16848	35719	222	35187
11	Total cost 'A'(1-10)	228427	227116	163719	234587	175210	92436	144128	125029	107769	49474	160535
12	Interest on fixed capital	2080	4021	1519	113756	3219	29199	601	28275	1419	1125	11545
13	Cost 'B1'(11+12)	230507	231136	165237	348343	178429	121635	144729	153303	109188	50599	172080
14	Interest on land value	330328	187808	528558	1007434	775404	1044864	745545	152239	275732	301669	179023
15	Cost 'B'(13+14)	560835	418945	693795	1355777	953833	1166499	890274	305543	384920	352267	351104
16	Inputed value of household labour	177138	60537	89967	218570	95866	40844	67349	19483	57643	50042	72625
17	Cost 'C'(15+16)	737973	479482	783762	1574347	1049699	1207343	957623	325026	442563	402309	423729

A2.13 District wise Cost of Cultivation (In Rs.) Per Hectare of Bitter Gourd Winter during 2023-24

Sl.No	Components	District												
		Thiruvananthapuram	Kollam	Pathanamthitta	Alappuzha	Kottayam	Idukki	Ernakulam	Thrissur	Palakkad	Malappuram	Kozhikode	Kannur	Kasargod
1	Hired human labour	36761	141489	45826	59636	114521	86348	36585	66413	48332	37139	28804	29340	66352
2	Animal labour													
3	Machine labour							8162		5199		7600	2747	18752
4	Seed /seedlings	7338	5488	13972	15408	7916	3633	3483	7694	14745	8224	12122	28310	10813
5	Farmyard manure and chemical fertilizers	46068	37187	24362	36528	25988	11200	9236	31421	15753	22706	36115	42692	45140
6	Plant Protection	1805	908	2302	8807	14571	485	1008	5577	4508	7962	1013		642
7	Land tax and irrigation cess	158	1889	245	418	397	334	244	161	787		95	219	210
8	Repair and maintenance charges of implements, machinery and building	587	7636	3456	31606	452	300	1117			2760	380	58	454

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Sl.No	Components	Thiruvananthapuram	Kollam	Pathanamthitta	Alappuzha	Kottayam	Idukki	Ernakulam	Thrissur	Palakkad	Malappuram	Kozhikode	Kannur	Kasaragod
		9197	18507	8646	12038	16300	10167	5847	11111	8854	7603	8565	10309	14170
10	Other expenses	58286	32551	41163	44280	35224	20360	30402	37421	18186	39801	24890	45891	25985
11	Total cost 'A'(1-10)	160200	245655	139973	208721	215368	132828	96083	159797	116364	126196	119584	159566	182517
12	Interest on fixed capital	1844	3594	1948	33952	776	435	16407	5678	31191	59472	897	20155	81288
13	Cost 'B1'(11+12)	162044	249249	141921	242673	216144	133263	112490	165474	147555	185668	120481	179721	263806
14	Interest on land value	304926	250802	607107	945735	770675	226649	852329	1103019	136712	1094676	437051	196042	196209
15	Cost 'B'(13+14)	466970	500051	749028	1188408	986819	359912	964819	1268494	284267	1280344	557532	375763	460014
16	Imputed value of household labour	144550	54504	108884	250603	102411	14982	49822	87926	23710	73323	71161	132578	234126
17	Cost 'C'(15+16)	611521	554555	857912	1439011	1089230	374894	1014641	1356420	307977	1353668	628693	508340	694140

A2.14 District wise Cost of Cultivation (In Rs.) Per Hectare of Bitter Gourd Summer during 2023-24

Sl.No	Components	Thiruvananthapuram	Kollam	Pathanamthitta	Alappuzha	Kottayam	Idukki	Ernakulam	Thrissur	Palakkad	Malappuram	Kozhikode	Kannur	Kasargod
1	Hired human labour	57435	147048	37833	97164	118671	77688	74035	65059		3768	19304	25156	40113
2	Animal labour													
3	Machine labour				1000			6938				6729	5272	9880
4	Seed /seedlings	7724	7487	14128	8597	5273	3425	3071	8947	8645	7812	24300	31112	12954
5	Farmyard manure and chemical fertilizers	66749	30079	26275	37614	7819	4343	9855	19832	17043	20702	42049	61246	42449
6	Plant Protection	1523	1064	5694	7515	3533	731	1254	4075	3582	1309	1278		1284
7	Land tax and irrigation cess	1235	433	68	514	209		338	349	630	306	102	769	576
8	Repair and maintenance charges of implements, machinery and building	578	11148	4631	2360	783	130	185	50		17102	3952	1425	461
9	Interest on working capital	13343	18568	8393	15189	13530	8619	9515	9791	2927	3359	9366	12279	10668
10	Other expenses	56807	12553	151031	33215	16788	2275	28276	38576	18163	19085	35125	42997	20468
11	Total cost 'A'(1-10)	205395	228380	248052	203168	166605	97212	133469	146680	50989	73442	142204	180258	138855
12	Interest on fixed capital	2342	5367	3247	61769	280	131	7413	9890	16750	75194	10347	26647	83160
13	Cost 'B1'(11+12)	207737	233747	251300	264937	166885	97343	140882	156570	67739	148635	152551	206905	222015
14	Interest on land value	419212	181351	356579	678267	1159891	490356	987255	1034108	208913	552578	328585	289180	358270
15	Cost 'B'(13+14)	626949	415098	607878	943204	1326776	587699	1128137	1190679	276652	701213	481136	496085	580284
16	Imputed value of household labour	183890	61450	123502	126268	129891		56634	94212	78995	98988	105512	156883	271667
17	Cost 'C'(15+16)	810839	476548	731380	1069472	1456667	587699	1184771	1284890	355647	800202	586648	652968	851951

A2.15 District wise Cost of Cultivation (In Rs.) Per Hectare of Cowpea Autumn during 2023-24

Sl.No	Components	Thiruvananthapuram	Kollam	Pathanamthitta	Alappuzha	Kottayam	Ernakulam	Thrissur	Palakkad	Malappuram	Kozhikode	Kannur
1	Hired human labour	77567	141916	85645	54087	90523	57756	58342	45740	40151		32363
2	Animal labour											
3	Machine labour							1088	9161			11284
4	Seed /seedlings	7842	6634	8591	7638	6359	5387	3606	3247	6365	3909	36240
5	Farmyard manure and chemical fertilizers	50499	36922	20292	28015	29397	6078	19192	12581	18907	28273	42352
6	Plant Protection	1500	1191	2281	19866	5112	164	2240	3897	2984		888
7	Land tax and irrigation cess	206	439	206	513	269	171	48	730		706	560
8	Repair and maintenance charges of implements, machinery and building	1383	7955	2446	15709	1223	5949	24		546	194	204
9	Interest on working capital	13741	18666	11681	10961	13139	6938	8447	7463	6841	3218	12313
10	Other expenses	70675	25959	29086	59367	32402	35605	41665	12657	37484	4084	54710
11	Total cost 'A'(1-10)	223412	239683	160228	196156	178424	118048	134652	95476	113279	40385	190914
12	Interest on fixed capital	1738	4456	1430	61543	1226	132326	604	67267	25570	1353	11401
13	Cost 'B1'(11+12)	225149	244139	161658	257699	179649	250374	135256	162743	138848	41738	202315
14	Interest on land value	316803	220188	923463	628087	677646	2208075	925421	235764	252476	412695	165925
15	Cost 'B'(13+14)	541953	464327	1085121	885786	857295	2458449	1060677	398507	391324	454433	368240
16	Inputed value of household labour	156632	70391	81745	170223	93844	76465	72620	54484	78796	55585	90226
17	Cost 'C'(15+16)	698585	534718	1166866	1056008	951139	2534914	1133297	452991	470120	510018	458466

A2.16 District wise Cost of Cultivation (In Rs.) Per Hectare of Cowpea Winter during 2023-24

Sl. No	Components	Thiruvananthapuram	Kollam	Pathanamthitta	Alappuzha	Kottayam	Idukki	Ernakulam	Thrissur	Palakkad	Malappuram	Kozhikode	Wayanad	Kannur	Kasaragod
1	Hired human labour	42149	153593	32491	77035	116418	88259	25926	64635	59454	30172	17402	72230	50316	32355
2	Animal labour														
3	Machine labour							4327	1814	6828				9161	14651
4	Seed /seedlings	10222	5934	7913	11716	6233	4752	4733	4634	2814	5082	12359	5310	10572	11442
5	Farmyard manure and chemical fertilizers	61640	40802	22327	36532	23057	3606	10091	24615	14260	25477	58497	28080	31225	44968
6	Plant Protection	1383	930	1139	10505	7832	945	1172	3149	4862	3240		10233		138
7	Land tax and irrigation cess	617	270	279	582	262		317	147	725	27	90	814	287	261
8	Repair and maintenance charges of implements, machinery and building	1129	6653	4444	16348	917	130	1442	33	24	1124	299	7583	1455	
9	Interest on working capital	11539	20126	6387	13579	15354	9756	4625	9885	8822	6397	8826	11585	10127	10355
10	Other expenses	51657	42088	37735	50455	30055	12350	39513	32826	13181	36807	14221	28701	39408	22713
11	Total cost 'A'(1-10)	180337	270395	112714	216751	200129	119798	92146	141738	110971	108327	111695	164537	152552	136885
12	Interest on fixed capital	1529	3097	4882	31813	744	335	7773	4613	44931	23309	1834	18776	31706	176771
13	Cost 'B1'(11+12)	181866	273493	117596	248564	200873	120132	99919	146351	155902	131636	113529	183313	184258	313655
14	Interest on land value	307536	392684	735540	1006176	419563	659594	1122858	911412	167053	995872	267064	207845	173484	340845
15	Cost 'B'(13+14)	489402	666177	853137	1254739	620437	779726	1222777	1057762	322955	1127508	380593	391159	357742	654500
16	Inputed value of household labour	154991	53089	129518	179617	88509	10312	93157	80609	19098	78510	39033	242730	141297	212865
17	Cost 'C'(15+16)	644393	719265	982654	1434356	708946	790039	1315934	1138371	342053	1206017	419627	633889	499040	867365

A2.17 District wise Cost of Cultivation (In Rs.) Per Hectare of Cowpea Summer during 2023-24

Sl. No	Components	Thiruvananthapuram	Kollam	Pathanamthitta	Alappuzha	Kottayam	Idukki	Ernakulam	Thrissur	Palakkad	Malappuram	Kozhikode	Wayanad	Kannur	Kasargod
1	Hired human labour	65062	145739	45704	54658	90472	46338	119825	49652	7628	23388	30986	66295	62777	42090
2	Animal labour														
3	Machine labour				1105			8299				2328		9575	5015
4	Seed /seedlings	10436	8762	9434	7167	4324	5739	13486	5216	1668	4370	12265	10954	13081	15616
5	Farmyard manure and chemical fertilizers	65737	33552	23505	36967	26423	614	13249	21203	9540	21996	36977	13615	41370	38075
6	Plant Protection	1991	929	1943	7107	4166		823	5998	2232	2502	653	3848		395
7	Land tax and irrigation cess	870	724	172	422	121		306	212	456		94	790	463	407
8	Repair and maintenance charges of implements, machinery and building	218	8023	2399	1879	1399	31	395	5		2030	1752	1630	1758	439
9	Interest on working capital	14322	18898	8059	10700	12539	5269	15568	8207	2107	5226	8321	9471	12680	10119
10	Other expenses	55190	23172	26283	43906	17754		25490	28613	8572	32745	20434	5078	44451	15686
11	Total cost 'A'(1-10)	213825	239800	117498	163910	157197	57991	197442	119104	32203	92257	113808	111683	186154	127844
12	Interest on fixed capital	2296	3821	1646	64883	677	357	2976	4047	18765	16584	14382	4386	27724	51255
13	Cost 'B1'(11+12)	216121	243621	119143	228793	157875	58348	200418	123152	50968	108841	128191	116069	213878	179099
14	Interest on land value	270930	223572	469936	684319	722018	379230	932672	777792	235949	521558	1242189	138930	148811	232381
15	Cost 'B'(13+14)	487051	467193	589080	913112	879893	437578	1133090	900944	286916	630399	1370379	254999	362688	411479
16	Imputed value of household labour	178663	55111	124721	191353	73239		31814	100012	53053	86520	51467	152330	157058	214733
17	Cost 'C'(15+16)	665714	522304	713800	1104465	953132	437578	1164904	1000957	339969	716919	1421846	407329	519746	626212

A2.18 District wise Cost of Cultivation (In Rs.) Per Hectare of Cardamom during 2023-24

Sl.No	Components	Idukki	Palakkad	Wayanad
1	Hired human labour	70217	158686	101487
2	Animal labour			
3	Machine labour			
4	Seed /seedlings			
5	Farmyard manure and chemical fertilizers	13138	48452	50906
6	Plant Protection	4188	21120	2847
7	Land tax and irrigation cess	354	1976	807
8	Repair and maintenance charges of implements, machinery and building	263		2297
9	Interest on working capital	8754	22826	15524
10	Other expenses	2625	98245	24107
11	Total cost 'A'(1-10)	99540	351305	197975
12	Interest on fixed capital	509	903	11848
13	Cost 'B1'(11+12)	100049	352208	209823
14	Interest on land value	514379	73648	234657
15	Cost 'B'(13+14)	614429	425856	444480
16	Inputed value of household labour	1146	23987	64325
17	Cost 'C'(15+16)	615574	449844	508806

A2.19 District wise Cost of Cultivation (In Rs.) Per Hectare of Ash gourd - Autumn during 2023 – 2024

Sl. No	Components	Kollam	Pathanamthitta	Alappuzha	Kottayam	Ernakulam	Thrissur	Palakkad	Malappuram	Kozhikode	Kannur
1	Hired human labour	46107	53568	22909	45736	34271	61616	28314	36910	1123	20369
2	Animal labour										
3	Machine labour						954	2777			4430
4	Seed /seedlings	7081	5064	4045	4520	2470	2181	4666	4958	9655	8041
5	Farmyard manure and chemical fertilizers	11362	36050	19297	4725	15555	19699	12363	14073	29988	25667
6	Plant Protection	926	2533	1420	4940	494	1938	1474	3028		
7	Land tax and irrigation cess	247	62	445	391	86	32	497	119	438	166
8	Repair and maintenance charges of implements, machinery and building	12350	6175	37050	515	636	17		332		78
9	Interest on working capital	6548	9721	4767	5992	5279	8639	4959	5897	4077	5851
10	Other expenses	23794	22292	33716	3664	24823	17274	9433	14080	5142	38080
11	Total cost 'A'(1-10)	108414	135465	123648	70483	83615	112350	64483	79398	50423	102683
12	Interest on fixed capital	5500	3556	42219	2240	1481	597	1717	848	1233	1834
13	Cost 'B1'(11+12)	113914	139021	165867	72722	85097	112947	66200	80245	51656	104517
14	Interest on land value	51788	978544	2276179	570753	2413709	603987	353001	245992	399712	195662
15	Cost 'B'(13+14)	165702	1117565	2442046	643475	2498805	716934	419201	326237	451368	300179
16	Inputed value of household labour	23053	68950	120555	48988	20995	26591	31117	22477	79040	62049
17	Cost 'C'(15+16)	188755	1186515	2562601	692463	2519800	743525	450318	348714	530408	362228

A2.20 District wise Cost of Cultivation (In Rs.) Per Hectare of Ash gourd - Winter during 2023-24

Sl. No	Components	Thiruvananthapuram	Kollam	Pathanamthitta	Alappuzha	Kottayam	Idukki	Ernakulam	Thrissur	Palakkad	Malappuram	Kozhikode	Kannur	Kasargod
1	Hired human labour		57633	47753		44151		57304	46216	40669	29654	12754	4228	36641
2	Animal labour													
3	Machine labour									6016			1818	12549
4	Seed /seedlings		62573	6998		4261		2470	3106	5020	4804	8645	15914	5222
5	Farmyard manure and chemical fertilizers		11362	31863		3886		11005	22176	6089	18386	71513	33490	41068
6	Plant Protection		926	618		11257		720	3607	724	1835			
7	Land tax and irrigation cess		247			617			87	760		337	673	242
8	Repair and maintenance charges of implements, machinery and building		6587	6587		257			4	49	3124	449	2879	
9	Interest on working capital		13249	8723		6356		7150	7511	5852	5468	9291	5545	9548
10	Other expenses		23300	28652		3795		41167	18864	10286	19229	14820	30746	11419
11	Total cost 'A'(1-10)		175878	131194		74581		119816	101571	75465	82498	117810	95294	116689
12	Interest on fixed capital		2458	2917		797		2417	5785	3086	73975	2300	34823	58365
13	Cost 'B1'(11+12)		178337	134111		75378		122233	107356	78551	156473	120110	130117	175054
14	Interest on land value		53352	1477432		348870		1163644	994125	157648	1507285	431226	199661	261212
15	Cost 'B'(13+14)		231689	1611543		424248		1285877	1101481	236199	1663758	551336	329778	436266
16	Inputed value of household labour		41167	47210		46778		37434	49997	21430	43702	56002	116999	116269
17	Cost 'C'(15+16))		272855	1658753		471026		1323312	1151478	257630	1707459	607337	446777	552535

A2.21 District wise Cost of Cultivation (In Rs.) Per Hectare of Ash gourd - Summer during 2023-24

Sl. No	Components	Kollam	Pathanamthitta	Alappuzha	Kottayam	Idukki	Ernakulam	Thrissur	Palakkad	Malappuram	Kozhikode	Kannur	Kasargod
1	Hired human labour	49400	51047	21242	28981		77829	34674		34333	36703	21972	43070
2	Animal labour												
3	Machine labour									1695	5107	8679	10167
4	Seed /seedlings	4940	8645	1778	7245		2470	3047	2855	4469	11178	13321	4824
5	Farmyard manure and chemical fertilizers	11362	36474	11184	5665		15210	20389	20106	38348	36123	65703	42608
6	Plant Protection	926	618	790	3129		1195	3614	2411	2380	461		
7	Land tax and irrigation cess	247	8233	548	1647		88	104	662	307	38	977	462
8	Repair and maintenance charges of implements, machinery and building	22230	4940		7410		359			2136	2449	1149	
9	Interest on working capital	6663	9678	3499	4502		9670	6172	2537	8123	8957	10967	10067
10	Other expenses	23589	23877	24700	8233		20158	14566	2174	40830	24209	39658	10792
11	Total cost 'A'(1-10)	119357	143511	63743	66812		126980	82567	30745	132621	125224	162426	121990
12	Interest on fixed capital	9625	2500	8050	2917		7540	8717	25900	67839	8682	34356	22285
13	Cost 'B1'(11+12)	128982	146011	71793	69729		134519	91284	56645	200460	133905	196782	144275
14	Interest on land value	56934	1477432	437180	1187520		382452	770868	216390	364314	321263	221209	656130
15	Cost 'B'(13+14)	185915	1623443	508973	1257249		516971	862152	273034	564774	455168	417991	800405
16	Imputed value of household labour	39520	43307	228352	59774		26668	63667	63331	57730	69918	116159	95641
17	Cost 'C'(15+16))	225435	1666751	737324	1317023		543639	925819	336365	622504	525086	534149	896045

A2.22 District wise Cost of Cultivation (In Rs.) Per Hectare of Cucumber - Autumn during 2023-24

Sl.No	Components	Thiruvananthapuram	Kollam	Pathanamthitta	Alappuzha	Kottayam	Ernakulam	Thrissur	Palakkad	Malappuram	Kozhikode	Kannur
1	Hired human labour	35143	139333	89765	25237	14957	34883	39300		33193		29878
2	Animal labour											
3	Machine labour											7512
4	Seed /seedlings	3014	3782	3180	3671	1961	3243	2211	1504	3567	8601	8067
5	Farmyard manure and chemical fertilizers	43855	13802	43833	8336	24038	8729	19544	21726	17424	16129	32534
6	Plant Protection	1455	891	2681	6954	3186	837	1139	2490	2808		
7	Land tax and irrigation cess	59	336	192	415	175	76	67	447	50	445	142
8	Repair and maintenance charges of implements, machinery and building	1092	9817	4758	9209	1220	3366	20		632		51
9	Interest on working capital	8347	15781	13946	4420	4414	4769	6219	2572	5699	2473	7799
10	Other expenses	29765	32300	30245	5947	2208	32150	18072	6323	21265	1927	30944
11	Total cost 'A'(1-10)	122731	216042	188601	64189	52161	88052	86572	35062	84637	29574	116927
12	Interest on fixed capital	1371	4625	2522	105757	3411	43230	1691	5314	1528	1750	2883
13	Cost 'B1'(11+12)	124102	220667	191123	169945	55571	131282	88263	40376	86165	31324	119810
14	Interest on land value	249131	165382	856333	264311	1866826	2467723	3618682	748393	206743	378490	177156
15	Cost 'B'(13+14)	373233	386049	1047456	434257	1922397	2599005	3706945	788768	292908	409814	296965
16	Inputed value of household labour	108098	31667	62722	185814	50249	25863	33209	63117	50860	46436	63640
17	Cost 'C'(15+16))	481331	417716	1110179	620071	1972646	2624869	3740154	851886	343768	456250	360605

A2.23 District wise Cost of Cultivation (In Rs.) Per Hectare of Cucumber - Winter during 2023 – 2024

SLNo	Components	Thiruvananthapuram	Kollam	Pathanamthitta	Alappuzha	Kottayam	Idukki	Ernakulam	Thrissur	Palakkad	Malappuram	Kozhikode	Kannur	Kasargod
1	Hired human labour	24348	52364	19054	72541	47588	27417	29598	50329	33668	22806	11217	6456	40737
2	Animal labour													
3	Machine labour							3811				9880	5790	15097
4	Seed /seedlings	2835	5558	4658	3501	1125	9633	3465	3689	1420	5358	13117	9158	7247
5	Farmyard manure and chemical fertilizers	43183	11362	27862	10168	12477	988	8821	19114	20249	18832	80812	52029	42688
6	Plant Protection	1567	1390	1250	14556	4793	618	1376	2834	2446	3352	341		623
7	Land tax and irrigation cess	312	247	88	436	189		113	162		72		305	263
8	Repair and maintenance charges of implements, machinery and building	234	8892	5505	3537	134	2058	2893	16		505	170	1524	857
9	Interest on working capital	7193	7067	5282	10077	6598	3866	4707	7597	5778	5035	11537	7343	10639
10	Other expenses	33763	22773	16725	6235	4355	12350	39485	13786	15585	21818	21605	18897	10083
11	Total cost 'A'(1-10)	113436	109653	80424	121052	77258	56929	94269	97527	79147	77777	148678	101502	128234
12	Interest on fixed capital	1372	3975	2616	40190	886	1500	4817	9019	6424	860	645	26730	45332
13	Cost 'B1'(11+12)	114808	113628	83040	161242	78145	58429	99086	106546	85571	78638	149323	128231	173565
14	Interest on land value	283886	52492	815804	992271	796571	471240	1696537	868261	187865	971367	283995	193871	220551
15	Cost 'B'(13+14)	398694	166120	898844	1153513	874716	529669	1795623	974807	273436	1050005	433318	322102	394116
16	Imputed value of household labour	131284	14820	124403	39784	28046		33394	45182	29338	50519	69944	103303	125647
17	Cost 'C'(15+16)	529978	180940	1023248	1193297	902762	529669	1829018	1019988	302773	1100524	503262	425405	519764

A2.24 District wise Cost of Cultivation (In Rs.) Per Hectare of Cucumber - Summer during 2023 – 2024

Sl. No	Components	District												
		Thiruvananthapuram	Kollam	Pathanamthitta	Alappuzha	Kottayam	Idukki	Ernakulam	Thrissur	Palakkad	Malappuram	Kozhikode	Kannur	Kasaragod
1	Hired human labour	31320	131656	50158	37523	45073	39273	59849	32552		19620	45400	26507	34653
2	Animal labour													
3	Machine labour							674			3880	4940	24838	9358
4	Seed /seedlings	3031	4334	6265	2550	1981	1284	2672	3699	1662	3535	7559	10982	6338
5	Farmyard manure and chemical fertilizers	54543	35768	25490	23919	12433	6175	11849	21012	20349	26238	37551	52965	40649
6	Plant Protection	1868	1258	2196	1879	3983		1007	4096	2432	1168	681		278
7	Land tax and irrigation cess	186	340	332	339	110		209	237	408	7	51	140	64
8	Repair and maintenance charges of implements, machinery and building	873	13748	2964	379	351		75	13		2981	1661	595	56
9	Interest on working capital	9076	17302	8411	6587	6347	4673	7605	6136	2444	5444	9613	11529	9128
10	Other expenses	29992	14237	23443	11498	7115	16467	19198	12743	16150	22528	22924	27065	10284
11	Total cost 'A'(1-10)	130889	218644	119259	84674	77393	67872	103137	80487	43446	85403	130380	154621	110808
12	Interest on fixed capital	2474	5929	1818	22526	980	500	4073	7970	31364	73719	5799	15703	11046
13	Cost 'B1'(11+12)	133364	224573	121077	107200	78373	68372	107210	88457	74810	159122	136180	170324	121854
14	Interest on land value	357427	102426	1347110	280208	1068545	792000	819015	736789	137020	682795	344919	220676	200743
15	Cost 'B'(13+14)	490791	326998	1468187	387408	1146917	860372	926225	825247	211830	841917	481099	391000	322597
16	Inputed value of household labour	158939	55692	72533	83575	37201		32686	62217	69806	73626	73254	75241	61809
17	Cost 'C'(15+16)	649730	382690	1540719	470983	1184118	860372	958911	887464	281636	915543	554353	466242	384406

A2.25 District wise Cost of Cultivation (In Rs.) Per Hectare of Snake gourd - Autumn during 2023– 2024

Sl. No	Components	Thiruvananthapuram	Kollam	Pathanamthitta	Alappuzha	Kottayam	Ernakulam	Thrissur	Palakkad	Malappuram	Kozhikode	Kannur
1	Hired human labour	38561	103162	67824	44653	82873	24991	37916	38435	32549		47032
2	Animal labour											
3	Machine labour						1825	4138	19204			3384
4	Seed /seedlings	5643	4645	122867	8193	6689	1893	5257	17194	3370	9818	10544
5	Farmyard manure and chemical fertilizers	46658	18784	19028	21791	23147	17530	15714	13033	19275	125970	38079
6	Plant Protection	1990	690	2756	12770	4104	2467	1488	3996	2338		1793
7	Land tax and irrigation cess	331	555	221	480	328	32	39	866	21	741	
8	Repair and maintenance charges of implements, machinery and building	1014	7888	1955	4857	1175	1145	10	18	1108		
9	Interest on working capital	9285	12728	21247	8741	11681	4871	6451	9186	5753	13579	10083
10	Other expenses	43264	22640	38766	51604	21637	18961	40425	10122	40951	1729	58663
11	Total cost 'A'(1-10)	146746	171091	274664	153088	151635	73715	111439	112055	105366	151837	169577
12	Interest on fixed capital	2187	3616	1134	37336	1349	5453	409	38247	1886	2750	903
13	Cost 'B1'(11+12)	148933	174707	275797	190425	152984	79168	111848	150302	107252	154587	170480
14	Interest on land value	431346	116711	514326	667846	851870	1155655	1059005	146348	222175	238170	180242
15	Cost 'B'(13+14)	580279	291419	790123	858271	1004854	1234822	1170853	296650	329427	392757	350722
16	Imputed value of household labour	145147	41990	70227	103886	67940	54753	68759	18122	67347	60515	66851
17	Cost 'C'(15+16))	725426	333409	860350	962157	1072794	1289575	1239612	314771	396774	453272	417573

A2.26 District wise Cost of Cultivation (In Rs.) Per Hectare of Snake gourd - Winter during 2023-24

Sl. No	Components	District												
		Thiruvananthapuram	Kollam	Pathanamthitta	Alappuzha	Kottayam	Idukki	Ernakulam	Thrissur	Palakkad	Malappuram	Kozhikode	Kannur	Kasargod
1	Hired human labour	29687	65028	42287	74226	94611	92007	37246	41034	54201	32596	29393	57465	43670
2	Animal labour													
3	Machine labour				2173			4474		8048		9880	10329	5928
4	Seed /seedlings	5566	11824	12083	5532	4976	2933	3449	4881	16555	5472	8851	10628	14573
5	Farmyard manure and chemical fertilizers	45539	16798	22817	31618	28792	10292	8487	17739	14827	28425	53105	47529	83911
6	Plant Protection	2020	1180	1225	7743	6027	772	1703	2717	4243	4977	4528		2322
7	Land tax and irrigation cess	933	171	70	358	251		259	79	917	45		393	306
8	Repair and maintenance charges of implements, machinery and building	584	6404	3757	1094	748	515	1165	18		3356	1647	4865	1482
9	Interest on working capital	8281	9483	7841	12129	13441	10600	5536	6637	9787	7147	10576	12595	15040
10	Other expenses	36441	39496	35075	65151	12065	13379	32623	36981	9579	37228	34168	64295	14079
11	Total cost 'A'(1-10)	129053	150383	125155	200024	160910	130498	94941	110087	118158	119247	152148	208099	181311
12	Interest on fixed capital	1831	3068	2106	42217	758	433	6651	2646	39265	71485	1196	80059	285380
13	Cost 'B1'(11+12)	130883	153451	127261	242242	161668	130931	101592	112733	157422	190732	153344	288159	466691
14	Interest on land value	398783	58091	612882	811515	773552	204717	1074557	999359	137721	545228	241978	221813	155215
15	Cost 'B'(13+14)	529666	211542	740143	1053757	935220	335648	1176150	1112092	295144	735960	395321	509972	621906
16	Inputed value of household labour	153928	24471	114021	120706	68618	1647	57891	52415	14417	58931	74676	181171	256831
17	Cost 'C'(15+16)	683595	236013	854164	1174463	1003839	337295	1234041	1164507	309561	794891	469998	691143	878736

A2.27 District wise Cost of Cultivation (In Rs.) Per Hectare of Snake gourd - Summer during 2023 – 2024

Sl. No	Components	District												
		Thiruvananthapuram	Kollam	Pathanamthitta	Alappuzha	Kottayam	Idukki	Ernakulam	Thrissur	Palakkad	Malappuram	Kozhikode	Kannur	Kasaragod
1	Hired human labour	43182	104240	39240	55639	97792	82644	58743	56709	22800	38058	27431	30000	
2	Animal labour													
3	Machine labour				971			9262				6587	3088	9880
4	Seed /seedlings	5953	7585	11769	6270	5988	2074	4322	5069	11400	4696	9921	14923	24700
5	Farmyard manure and chemical fertilizers	49853	16293	22215	34782	22291	9599	18604	18983	14645	25250	28531	57772	72618
6	Plant Protection	1840	1344	2315	4423	2798	366	2366	6008	2166	1854	2470		3623
7	Land tax and irrigation cess	771	375	24	390	161		255	121	657	147	124		
8	Repair and maintenance charges of implements, machinery and building	504	15290	4027	849	1322	61	164	4		3778	4034	5403	
9	Interest on working capital	10083	12946	7554	10208	12887	9468	9330	8677	5101	6986	7494	10578	11082
10	Other expenses	35780	27626	40262	37550	15146	1220	22956	30040	23864	47983	59214	48422	18937
11	Total cost 'A'(1-10)	147965	185699	127406	151082	158384	105432	126003	125611	80634	128751	145806	170187	140839
12	Interest on fixed capital	2415	7721	2073	27034	748	171	5262	3522	10962	23096	17194	115842	4042
13	Cost 'B1'(11+12)	150380	193420	129479	178116	159132	105603	131265	129133	91595	151847	163000	286029	144881
14	Interest on land value	476603	82980	367020	702344	490402	499807	517022	1095993	213142	416398	359959	304119	211267
15	Cost 'B'(13+14)	626983	276400	496500	880460	649534	605410	648287	1225125	304737	568245	522959	590147	356148
16	Inputed value of household labour	171167	43593	128195	123186	81843		44339	56048	53683	52397	130416	149795	299693
17	Cost 'C'(15+16))	798151	319993	624694	1003646	731377	605410	692626	1281174	358420	620642	653375	739943	655842

A2.28 District wise Cost of Cultivation (In Rs.) Per Hectare of Ladies finger - Autumn during 2023-24

Sl.no	Components	Thiruvananthapuram	Kollam	Pathanamthitta	Alappuzha	Kottayam	Ernakulam	Thrissur	Palakkad	Malappuram	Kozhikode	Kannur
1	Hired human labour	79650	136236	100089	52922	52352	36968	30337	37563	34314	3640	36979
2	Animal labour											
3	Machine labour								9743			3745
4	Seed /seedlings	7543	3473	4016	14959	3866	1108	6264	6000	5519	13513	13775
5	Farmyard manure and chemical fertilizers	61651	33990	23143	23382	28491	4790	17619	33133	17833	32766	51382
6	Plant Protection	1722	475	2483	40381	3347	150	2783	1445	2829		
7	Land tax and irrigation cess	99	528	253	576	403	262	81	679		682	321
8	Repair and maintenance charges of implements, machinery and building	2145	7657	2685	17960	1215	2758		299	5496	279	71
9	Interest on working capital	15057	17417	12973	13164	8806	4302	5700	8788	6049	4992	10588
10	Other expenses	31555	19143	29505	8335	20860	41167	17523	9285	26287	617	32088
11	Total cost 'A'(1-10)	199422	218919	175147	171679	119339	91504	80308	106935	98327	56492	148949
12	Interest on fixed capital	3159	3650	1660	127723	1547	41187	1752	74885	34593	1091	1754
13	Cost 'B1'(11+12)	202581	222569	176807	299402	120886	132690	82060	181820	132919	57582	150704
14	Interest on land value	360911	154236	1353835	1300151	694886	2500954	974812	231091	348846	285356	189593
15	Cost 'B'(13+14)	563491	376805	1530642	1599553	815772	2633645	1056871	412911	481765	342938	340296
16	Inputed value of household labour	154114	43765	28094	100520	36019	24685	43635	29649	68284	44135	91399
17	Cost 'C'(15+16))	717605	420571	1558735	1700073	851791	2658330	1100507	442561	550049	387073	431695

A2.29 District wise Cost of Cultivation (In Rs.) Per Hectare of Ladies finger - Winter during 2023-24

Sl. No	Components	District												
		Thiruvananthapuram	Kollam	Pathanamthitta	Alappuzha	Kottayam	Idukki	Ernakulam	Thrissur	Palakkad	Malappuram	Kozhikode	Kannur	Kasargod
1	Hired human labour	37737	127342	59692	70636	51859	73024	51376	44827	34738	27382	4165	10885	51006
2	Animal labour													
3	Machine labour						6972	4940		10669		1149	6601	9845
4	Seed /seedlings	5949	7702	4868	5260	4600	5809	1235	5568	5595	5677	4834	15348	7585
5	Farmyard manure and chemical fertilizers	60035	33449	24726	22808	22064	10756	6998	21364	26806	27896	49331	46984	45772
6	Plant Protection	1848	515	648	14273	8492	822	595	3377	4225	3237			899
7	Land tax and irrigation cess	1518	412	257	567	217	131	183	160	838	817	103	463	299
8	Repair and maintenance charges of implements, machinery and building	484	12624	12865	2853	732		6202	36	270	563	115	2044	93
9	Interest on working capital	10557	16901	8993	11298	8702	9738	6514	7514	8203	6419	5948	7982	11511
10	Other expenses	23221	37407	25215	9459	12237	249	37873	13739	6877	34738	10052	25134	11784
11	Total cost 'A'(1-10)	141349	236352	137264	137155	108904	107502	115917	96584	98220	106729	75697	115441	138793
12	Interest on fixed capital	1988	7528	37050	50886	1281		88045	6648	46792	1911	1632	29408	59111
13	Cost 'B1'(11+12)	143337	243880	174314	188041	110184	107502	203963	103233	145012	108640	77329	144849	197904
14	Interest on land value	507732	427337	2109188	2937868	702704	973676	1635506	757846	140936	767145	471472	309040	167927
15	Cost 'B'(13+14)	651069	671217	2283501	3125909	812888	1081178	1839468	861079	285948	875785	548801	453889	365831
16	Inputed value of household labour	170777	49400	39314	81472	42706	32508	38331	39449	22203	54169	62497	122193	117549
17	Cost 'C'(15+16)	821847	720617	2322815	3207381	855594	1113687	1877799	900528	308151	929953	611298	576081	483380

A2.30 District wise Cost of Cultivation (In Rs.) Per Hectare of Ladies finger - Summer during 2023-24

Sl.No	Components	District												
		Thiruvananthapuram	Kollam	Pathanamthitta	Alappuzha	Kottayam	Idukki	Ernakulam	Thrissur	Palakkad	Malappuram	Kozhikode	Kannur	Kasaragod
1	Hired human labour	38034	156598	51596	97971	63380	59390	53711	30891	17784	35069	40544	24094	33020
2	Animal labour													
3	Machine labour									13197		3725	9442	6817
4	Seed /seedlings	7146	3293	5066	6374	7990	5763	1235	5497	4940	6713	8017	10589	7030
5	Farmyard manure and chemical fertilizers	78759	38186	16906	23928	23051	1954	2942	22329	57061	41204	34147	43819	52499
6	Plant Protection	2220	371	720	9716	6360		449	5653	2470	2796	1174		513
7	Land tax and irrigation cess	700	395	137	601	124		213	137	658		101	155	433
8	Repair and maintenance charges of implements, machinery and building	286	15660	1372	2720	2668		449	19	385	2679	2794	1115	120
9	Interest on working capital	12616	19845	7429	13799	10078	6711	5834	6437	9545	8578	8761	8794	9988
10	Other expenses	20307	22428	23932	7876	14820		29640	12291	8140	35600	32958	24967	11623
11	Total cost 'A'(1-10)	160070	256775	107158	162985	128471	73818	94473	83253	114180	132639	132223	122976	122043
12	Interest on fixed capital	4363	6465	8556	61035	1703	292	5144	6202	35817	77908	21353	24464	38218
13	Cost 'B1'(11+12)	164433	263240	115713	224020	130173	74110	99617	89455	149997	210547	153575	147440	160261
14	Interest on land value	659227	393496	1531530	839573	782356	725449	945336	532388	184912	1273508	789533	182047	447575
15	Cost 'B'(13+14)	823660	656735	1647243	1063593	912529	799558	1044954	621843	334909	1484055	943109	329487	607837
16	Imputed value of household labour	202101	67184	42923	39945	47950		51915	54987	17974	60549	88179	136181	142851
17	Cost 'C'(15+16)	1025761	723919	1690166	1103538	960479	799558	1096869	676830	352882	1544604	1031288	465668	750688

A2.31 District wise Cost of Cultivation (In Rs.) Per Hectare of Cabbage - winter during 2023 – 2024

Sl.No	Components	Idukki
1	Hired human labour	111706
2	Animal labour	0
3	Machine labour	0
4	Seed /seedlings	22477
5	Farmyard manure and chemical fertilizers	2237
6	Plant Protection	849
7	Land tax and irrigation cess	0
8	Repair and maintenance charges of implements, machinery and building	0
9	Interest on working capital	13727
10	Other expenses	0
11	Total cost 'A'(1-10)	150996
12	Interest on fixed capital	1476
13	Cost 'B1'(11+12)	152471
14	Interest on land value	206909
15	Cost 'B'(13+14)	359381
16	Imputed value of household labour	4631
17	Cost 'C'(15+16)	364012

A2.32 District wise Cost of Cultivation (In Rs.) Per Hectare of Tomato –Autumn during 2023 – 2024

Sl.No	Components	Pathanamthitta	Alappuzha	Palakkad
1	Hired human labour	61201	99788	55905
2	Animal labour			
3	Machine labour		11856	11579
4	Seed /seedlings	4446	17784	15548
5	Farmyard manure and chemical fertilizers	18799	4742	37802
6	Plant Protection	1911	53441	2875
7	Land tax and irrigation cess	233	504	753
8	Repair and maintenance charges of implements, machinery and building	3156	46683	302
9	Interest on working capital	8636	18761	12371
10	Other expenses	33762	20748	13132
11	Total cost 'A'(1-10)	132145	274307	150265
12	Interest on fixed capital	1653	607050	56534
13	Cost 'B1'(11+12)	133797	881357	206800
14	Interest on land value	1749038	306280	180822
15	Cost 'B'(13+14)	1882835	1187637	387622
16	Inputed value of household labour	73826	66690	17163
17	Cost 'C'(15+16))	1956661	1254327	404784

**A2.33 District wise Cost of Cultivation (In Rs.) Per Hectare of Tomato – winter
during 2023 – 2024**

Sl.No	Components	Idukki
1	Hired human labour	55400
2	Animal labour	
3	Machine labour	9624
4	Seed /seedlings	19367
5	Farmyard manure and chemical fertilizers	36277
6	Plant Protection	3273
7	Land tax and irrigation cess	828
8	Repair and maintenance charges of implements, machinery and building	156
9	Interest on working capital	12394
10	Other expenses	12216
11	Total cost 'A'(1-10)	149536
12	Interest on fixed capital	29640
13	Cost 'B1'(11+12)	179175
14	Interest on land value	152349
15	Cost 'B'(13+14)	331524
16	Inputed value of household labour	11520
17	Cost 'C'(15+16))	343044

A2.34 District wise Cost of Cultivation (In Rs.) Per Hectare of Tomato - Summer during 2023-24

Sl.No	Components	Pathanamthitta	Idukki	Palakkad
1	Hired human labour		66690	56906
2	Animal labour			
3	Machine labour			11387
4	Seed /seedlings	1544	9880	15044
5	Farmyard manure and chemical fertilizers	17753	24700	71417
6	Plant Protection	2933		2470
7	Land tax and irrigation cess			659
8	Repair and maintenance charges of implements, machinery and building			446
9	Interest on working capital	2223	10127	15722
10	Other expenses	40138		18003
11	Total cost 'A'(1-10)	64591	111397	192055
12	Interest on fixed capital	1667	1500	19138
13	Cost 'B1'(11+12)	66257	112897	211193
14	Interest on land value		865365	285518
15	Cost 'B'(13+14)	66257	978262	496711
16	Inputed value of household labour	89538		9525
17	Cost 'C'(15+16))	155795	978262	506236

A2.35 District wise Cost of Cultivation (In Rs.) Per Hectare of Beans – Summer during 2023 – 2024

Sl.No	Components	Kozhikode
1	Hired human labour	179075
2	Animal labour	0
3	Machine labour	0
4	Seed /seedlings	4631
5	Farmyard manure and chemical fertilizers	16302
6	Plant Protection	7410
7	Land tax and irrigation cess	741
8	Repair and maintenance charges of implements, machinery and building	4940
9	Interest on working capital	20742
10	Other expenses	14820
11	Total cost 'A'(1-10)	248661
12	Interest on fixed capital	769010
13	Cost 'B1'(11+12)	1017671
14	Interest on land value	395694
15	Cost 'B'(13+14)	1413365
16	Inputed value of household labour	59280
17	Cost 'C'(15+16)	1472645

**A3.1. Percentage of Hired human labour hours to total human labour hours under
Autumn Paddy**

Sl.No	District	Male	Female	Total
1	Thiruvananthapuram	38.72	27.15	65.87
2	Kollam	55.43	29	84.43
3	Pathanamthitta	43.83	41.24	85.07
4	Alappuzha	40.12	50.53	90.65
5	Kottayam	56.09	8.9	64.99
6	Idukki	50.66	31.92	82.58
7	Ernakulam	39.68	31.35	71.03
8	Thrissur	73.48	5.03	78.51
9	Palakkad	24.84	62.06	86.9
10	Malappuram	54.62	24.91	79.53
11	Kozhikode	43.78	31.65	75.43
12	Wayanad			0
13	Kannur	13.81	67.62	81.43
14	Kasargod	21.38	54.97	76.35
State		45.31	34.02	79.33

**A3.2. Percentage of Hired human labour hours to total human labour hours under
Winter Paddy**

Sl.No	District	Male	Female	Total
1	Thiruvananthapuram	44.29	23.71	68
2	Kollam	53.83	29.17	83
3	Pathanamthitta	48.53	35.55	84.08
4	Alappuzha	30.49	31.97	62.46
5	Kottayam	53.13	9.62	62.75
6	Idukki	65.16	25.85	91.01
7	Ernakulam	42.39	8.42	50.81
8	Thrissur	74.02	7.03	81.05
9	Palakkad	21.49	71.8	93.29
10	Malappuram	67.24	16.23	83.47
11	Kozhikode	60.29	12.04	72.33
12	Wayanad	36.32	40.66	76.98
13	Kannur	16.08	65.8	81.88
14	Kasargod	23.11	51.63	74.74
State		45.38	31.54	76.92

A3.3. Percentage of Hired human labour hours to total human labour hours under Summer Paddy

Sl.No	District	Male	Female	Total
1	Thiruvananthapuram	37.3	29.81	67.11
2	Kollam	47.2	36.64	83.84
3	Pathanamthitta	56.89	28.76	85.65
4	Alappuzha	53.36	31.85	85.21
5	Kottayam	70.08	13.19	83.27
6	Idukki	62.44	37.56	100
7	Ernakulam	33.64	5.81	39.45
8	Thrissur	75.04	5.07	80.11
9	Palakkad	28.58	56.71	85.29
10	Malappuram	71.66	10.61	82.27
11	Kozhikode	51.26	25.36	76.62
12	Wayanad	36.2	46.86	83.06
13	Kannur	28.48	42.72	71.2
14	Kasargod	26.78	28.4	55.18
	State	56.79	24.57	81.37

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

Sl.No	District	Male	Female	Total
1	Thiruvananthapuram	81.96	0	81.96
2	Kollam	80.26	0	80.26
3	Pathanamthitta	83.69	0	83.69
4	Alappuzha	82.38	0.04	82.42
5	Kottayam	78.9	0	78.9
6	Idukki	100	0	100
7	Ernakulam	75.43	11.84	87.27
8	Thrissur	72.4	9.05	81.45
9	Palakkad	71.93	18.25	90.18
10	Malappuram	79.95	2.92	82.87
11	Kozhikode	72.64	1.6	74.24
12	Wayanad	82.49	0	82.49
13	Kannur	68.03	18.31	86.34
14	Kasargod	55.78	27.18	82.96
	State	75.62	7.38	83

A3.5. Percentage of Hired human labour hours to total human labour hours under Arecanut

Sl.No	District	Male	Female	Total
1	Thiruvananthapuram	65.74	0	65.74
2	Kollam	82.9	0	82.9
3	Pathanamthitta	71.32	0	71.32
4	Alappuzha	37.54	0	37.54
5	Kottayam	63.95	0	63.95
6	Idukki	100	0	100
7	Ernakulam	63.62	16.5	80.12
8	Thrissur	63.94	18.19	82.13
9	Palakkad	73.47	16.16	89.63
10	Malappuram	75.38	5.32	80.7
11	Kozhikode	74.11	0	74.11
12	Wayanad	84.46	1.3	85.76
13	Kannur	53.4	23.4	76.8
14	Kasargod	48.05	27.13	75.18
	State	64.35	14.34	78.69

A3.6. Percentage of Hired human labour hours to total human labour hours under Tapioca

Sl.No	District	Male	Female	Total
1	Thiruvananthapuram	51.71	0	51.71
2	Kollam	73.85	0	73.85
3	Pathanamthitta	55.78	0	55.78
4	Alappuzha	37.45	0.1	37.55
5	Kottayam	65.46	0	65.46
6	Idukki	75.5	19.38	94.88
7	Ernakulam	87.69	2.34	90.03
8	Thrissur	60.33	8.26	68.59
9	Palakkad	50.52	31.85	82.37
10	Malappuram	69.24	1.81	71.05
11	Kozhikode	76.89	2.82	79.71
12	Wayanad	72.35	9.49	81.84
13	Kannur	61.99	8.3	70.29
14	Kasargod	21.1	18.15	39.25
	State	65.08	5.39	70.46

A3.7. Percentage of Hired human labour hours to total human labour hours under Banana

Sl.No	District	Male	Female	Total
1	Thiruvananthapuram	51.99	0	51.99
2	Kollam	80.34	0	80.34
3	Pathanamthitta	58.13	0	58.13
4	Alappuzha	30.65	1.74	32.39
5	Kottayam	55.01	0	55.01
6	Idukki	82.79	17.21	100
7	Ernakulam	80.37	4.22	84.59
8	Thrissur	52.52	3.69	56.21
9	Palakkad	52.03	24.44	76.47
10	Malappuram	62.25	0	62.25
11	Kozhikode	64.51	0	64.51
12	Wayanad	72.86	10.65	83.51
13	Kannur	57.89	16.21	74.1
14	Kasargod	18.78	10.38	29.16
	State	60.58	5.29	65.86

A3.8. Percentage of Hired human labour hours to total human labour hours under Pepper

Sl.No	District	Male	Female	Total
1	Thiruvananthapuram	45.74	0	45.74
2	Kollam	68.14	0	68.14
3	Pathanamthitta	57.49	0.37	57.86
4	Alappuzha	26.39	0	26.39
5	Kottayam	75.89	0	75.89
6	Idukki	68.54	31.46	100
7	Ernakulam	36.03	0.54	36.57
8	Thrissur	57.95	4.15	62.1
9	Palakkad	70.16	10.54	80.7
10	Malappuram	57.71	3.1	60.81
11	Kozhikode	68.49	0.44	68.93
12	Wayanad	57.42	19.04	76.46
13	Kannur	68.92	5.15	74.07
14	Kasargod	37.43	15.7	53.13
	State	56.98	5.35	62.34

A3.9. Percentage of Hired human labour hours to total human labour hours under Ginger

Sl.No	District	Male	Female	Total
1	Thiruvananthapuram	28.46	0	28.46
2	Kollam	82.33	0	82.33
3	Pathanamthitta	46.18	0	46.18
4	Alappuzha	48.69	0.47	49.16
5	Kottayam	53.91	6.45	60.36
6	Idukki	57.62	36.29	93.91
7	Ernakulam	35.49	7.56	43.05
8	Thrissur	31.57	19.19	50.76
9	Palakkad	27.04	64	91.04
10	Malappuram	31.08	3.07	34.15
11	Kozhikode	42.59	4.67	47.26
12	Wayanad	32.29	49.87	82.16
13	Kannur	26.75	24.05	50.8
14	Kasargod	29.32	21.94	51.26
	State	36.38	32.75	69.13

A3.10. Percentage of Hired human labour hours to total human labour hours under Turmeric

Sl.No	District	Male	Female	Total
1	Thiruvananthapuram	30.96	0	30.96
2	Kollam	82.93	0	82.93
3	Pathanamthitta	34.78	0	34.78
4	Alappuzha	40.16	32.91	73.07
5	Kottayam	60.07	1.7	61.77
6	Idukki	51.64	37.91	89.55
7	Ernakulam	34.14	12.19	46.33
8	Thrissur	35.58	8.79	44.37
9	Palakkad	22.27	48.21	70.48
10	Malappuram	39.6	7.75	47.35
11	Kozhikode	34.7	8.06	42.76
12	Wayanad	27.51	26.77	54.28
13	Kannur	23.53	31.12	54.65
14	Kasargod	17.44	19.17	36.61
	State	36.45	17.97	54.41

A3.11. Percentage of Hired human labour hours to total human labour hours under Pineapple

Sl.No	District	Male	Female	Total
1	Thiruvananthapuram	42.45	0	42.45
2	Kollam	89.84	0	89.84
3	Pathanamthitta	81.9	0	81.9
4	Alappuzha	79.95	0	79.95
5	Kottayam	80.41	1.11	81.52
6	Idukki	68.23	31.77	100
7	Ernakulam	90.87	7.66	98.53
8	Thrissur	86.98	7.77	94.75
9	Palakkad	100	0	100
10	Malappuram	93.19	2.87	96.06
11	Kozhikode	67.04	22.46	89.5
12	Wayanad			0
13	Kannur	52.57	42.42	94.99
14	Kasargod	40.62	58.09	98.71
	State	76.54	17.19	93.72

A3.12. Percentage of Hired human labour hours to total human labour hours under Bitter Gourd – Autumn

Sl.No	District	Male	Female	Total
1	Thiruvananthapuram	27.69	0	27.69
2	Kollam	69.48	0.43	69.91
3	Pathanamthitta	56.68	0	56.68
4	Alappuzha	17.5	6.09	23.59
5	Kottayam	29.01	0	29.01
6	Idukki			0
7	Ernakulam	36.33	0	36.33
8	Thrissur	22.26	22.65	44.91
9	Palakkad	17.63	59.92	77.55
10	Malappuram	35.16	0	35.16
11	Kozhikode	0	0	0
12	Wayanad			0
13	Kannur	21.89	18.52	40.41
14	Kasargod			0
	State	29.59	16.9	46.49

A3.13. Percentage of Hired human labour hours to total human labour hours under Bitter Gourd – Winter

Sl.No	District	Male	Female	Total
1	Thiruvananthapuram	20.17	0	20.17
2	Kollam	71.53	0	71.53
3	Pathanamthitta	29.6	0	29.6
4	Alappuzha	17.13	3.17	20.3
5	Kottayam	47.55	6.17	53.72
6	Idukki	69.43	12.6	82.03
7	Ernakulam	29.58	7.08	36.66
8	Thrissur	33.64	9.77	43.41
9	Palakkad	21.14	52.75	73.89
10	Malappuram	31.6	0	31.6
11	Kozhikode	22.53	0	22.53
12	Wayanad			0
13	Kannur	9.81	9.47	19.28
14	Kasargod	13.93	8.28	22.21
	State	32.88	13.41	46.28

A3.14. Percentage of Hired human labour hours to total human labour hours under Bitter Gourd – Summer

Sl.No	District	Male	Female	Total
1	Thiruvananthapuram	25.81	0	25.81
2	Kollam	70.27	0	70.27
3	Pathanamthitta	23.5	0	23.5
4	Alappuzha	42.77	1.62	44.39
5	Kottayam	41.96	3	44.96
6	Idukki	49.16	50.84	100
7	Ernakulam	52.57	0	52.57
8	Thrissur	28.79	13.96	42.75
9	Palakkad	0	0	0
10	Malappuram	3.18	0	3.18
11	Kozhikode	11.96	0	11.96
12	Wayanad			0
13	Kannur	5.35	10.21	15.56
14	Kasargod	5.76	8.32	14.08
	State	33.67	6.06	39.73

A3.15. Percentage of Hired human labour hours to total human labour hours under Cowpea – Autumn

Sl.No	District	Male	Female	Total
1	Thiruvananthapuram	33.03	0	33.03
2	Kollam	65.68	0.34	66.02
3	Pathanamthitta	41.7	0	41.7
4	Alappuzha	15.21	6.29	21.5
5	Kottayam	47.07	2.75	49.82
6	Idukki			0
7	Ernakulam	36.02	0	36.02
8	Thrissur	33.58	10.73	44.31
9	Palakkad	8.09	45.21	53.3
10	Malappuram	31.25	1.19	32.44
11	Kozhikode	0	0	0
12	Wayanad			0
13	Kannur	10.39	18.83	29.22
14	Kasargod			0
	State	32.71	8.44	41.16

A3.16. Percentage of Hired human labour hours to total human labour hours under Cowpea – Winter

Sl.No	District	Male	Female	Total
1	Thiruvananthapuram	22.2	0	22.2
2	Kollam	73.85	0	73.85
3	Pathanamthitta	29.69	0	29.69
4	Alappuzha	26.06	2.18	28.24
5	Kottayam	32.82	3.04	35.86
6	Idukki	44.43	47.32	91.75
7	Ernakulam	17.73	0	17.73
8	Thrissur	31.11	12.35	43.46
9	Palakkad	23.69	55.78	79.47
10	Malappuram	25.72	0	25.72
11	Kozhikode	30.77	0	30.77
12	Wayanad	15.59	6.18	21.77
13	Kannur	8.77	20.79	29.56
14	Kasargod	7.18	6.72	13.9
	State	28.48	11.04	39.52

A3.17. Percentage of Hired human labour hours to total human labour hours under Cowpea – Summer

Sl.No	District	Male	Female	Total
1	Thiruvananthapuram	28.05	0	28.05
2	Kollam	71.43	0	71.43
3	Pathanamthitta	27.04	0	27.04
4	Alappuzha	9.18	0.92	10.1
5	Kottayam	2.05	0.14	2.19
6	Idukki	61.64	38.36	100
7	Ernakulam	76.13	0	76.13
8	Thrissur	26.73	6.76	33.49
9	Palakkad	8.3	4.98	13.28
10	Malappuram	19.16	0	19.16
11	Kozhikode	31.41	0.84	32.25
12	Wayanad	21.1	8.21	29.31
13	Kannur	14.81	14.42	29.23
14	Kasargod	9.14	8.54	17.68
	State	6.47	1.05	7.52

A3.18. Percentage of Hired human labour hours to total human labour hours under Cardamom

Sl.No	District	Male	Female	Total
1	Thiruvananthapuram			0
2	Kollam			0
3	Pathanamthitta			0
4	Alappuzha			0
5	Kottayam			0
6	Idukki	34.32	64.54	98.86
7	Ernakulam			0
8	Thrissur			0
9	Palakkad	11.2	77.38	88.58
10	Malappuram			0
11	Kozhikode			0
12	Wayanad	22.26	38.48	60.74
13	Kannur			0
14	Kasargod			0
	State	15.84	66.1	81.94

A3.19. Percentage of Hired human labour hours to total human labour hours under Ash Gourd – Autumn

Sl.No	District	Male	Female	Total
1	Thiruvananthapuram			0
2	Kollam	66.67	0	66.67
3	Pathanamthitta	42.22	0	42.22
4	Alappuzha	6.98	0	6.98
5	Kottayam	48.56	0	48.56
6	Idukki			0
7	Ernakulam	56.72	0	56.72
8	Thrissur	54.23	16.28	70.51
9	Palakkad	27.29	23.74	51.03
10	Malappuram	60.2	2.09	62.29
11	Kozhikode	0	0	0
12	Wayanad			0
13	Kannur	12.21	15.02	27.23
14	Kasargod			0
	State	42.33	14.42	56.75

A3.20. Percentage of Hired human labour hours to total human labour hours under Ash Gourd – Winter

Sl.No	District	Male	Female	Total
1	Thiruvananthapuram			0
2	Kollam	58.33	0	58.33
3	Pathanamthitta	52.73	0	52.73
4	Alappuzha			0
5	Kottayam	48.75	0	48.75
6	Idukki			0
7	Ernakulam	55.41	0	55.41
8	Thrissur	44.85	2.39	47.24
9	Palakkad	16.71	54.11	70.82
10	Malappuram	39.4	0	39.4
11	Kozhikode	20.51	0	20.51
12	Wayanad			0
13	Kannur	2.7	0.9	3.6
14	Kasargod	15.57	9.36	24.93
	State	26.73	16.6	43.33

A3.21. Percentage of Hired human labour hours to total human labour hours under Ash Gourd – Summer

Sl.No	District	Male	Female	Total
1	Thiruvananthapuram			0
2	Kollam	55.56	0	55.56
3	Pathanamthitta	56.36	0	56.36
4	Alappuzha	6.49	0	6.49
5	Kottayam	32	0	32
6	Idukki			0
7	Ernakulam	68.87	0	68.87
8	Thrissur	30.43	4.67	35.1
9	Palakkad	0	0	0
10	Malappuram	30.92	0	30.92
11	Kozhikode	28.32	0	28.32
12	Wayanad			0
13	Kannur	15.66	0	15.66
14	Kasargod	18.31	14.33	32.64
	State	27.26	3.92	31.19

A3.22. Percentage of Hired human labour hours to total human labour hours under Cucumber – Autumn

Sl.No	District	Male	Female	Total
1	Thiruvananthapuram	24.83	0	24.83
2	Kollam	80.74	0	80.74
3	Pathanamthitta	10.44	0	10.44
4	Alappuzha	9.09	0	9.09
5	Kottayam	22.3	0	22.3
6	Idukki			0
7	Ernakulam	51.68	0	51.68
8	Thrissur	43.98	10.09	54.07
9	Palakkad	0	0	0
10	Malappuram	38.57	0	38.57
11	Kozhikode	0	0	0
12	Wayanad			0
13	Kannur	19.21	15.89	35.1
14	Kasargod			0
	State	24.9	2.79	27.69

A3.23. Percentage of Hired human labour hours to total human labour hours under Cucumber – Winter

Sl.No	District	Male	Female	Total
1	Thiruvananthapuram	15.75	0	15.75
2	Kollam	77.94	0	77.94
3	Pathanamthitta	14.21	0	14.21
4	Alappuzha	56.26	9.12	65.38
5	Kottayam	62.83	0	62.83
6	Idukki	26.53	73.47	100
7	Ernakulam	41.18	0	41.18
8	Thrissur	36.08	18.5	54.58
9	Palakkad	41.11	13.05	54.16
10	Malappuram	29.84	0	29.84
11	Kozhikode	12.47	0	12.47
12	Wayanad			0
13	Kannur	4.44	1.77	6.21
14	Kasargod	15.79	9.56	25.35
	State	27.51	4.56	32.07

A3.24. Percentage of Hired human labour hours to total human labour hours under Cucumber – Summer

Sl.No	District	Male	Female	Total
1	Thiruvananthapuram	18.5	0	18.5
2	Kollam	70.25	0	70.25
3	Pathanamthitta	41.81	0	41.81
4	Alappuzha	26.76	0	26.76
5	Kottayam	54.6	0	54.6
6	Idukki	60.66	39.34	100
7	Ernakulam	59.81	0	59.81
8	Thrissur	28.24	6.73	34.97
9	Palakkad	0	0	0
10	Malappuram	16.22	0	16.22
11	Kozhikode	27.61	0	27.61
12	Wayanad			0
13	Kannur	21.37	5.27	26.64
14	Kasargod	29.87	6.08	35.95
	State	28.81	2.38	31.19

A3.25. Percentage of Hired human labour hours to total human labour hours under Snake Gourd – Autumn

Sl.No	District	Male	Female	Total
1	Thiruvananthapuram	21.63	0	21.63
2	Kollam	71.57	0	71.57
3	Pathanamthitta	49.95	0	49.95
4	Alappuzha	25.65	2.65	28.3
5	Kottayam	47.87	0.26	48.13
6	Idukki			0
7	Ernakulam	22.95	0.71	23.66
8	Thrissur	29.03	4.14	33.17
9	Palakkad	19.76	56.56	76.32
10	Malappuram	30.84	0	30.84
11	Kozhikode	0	0	0
12	Wayanad			0
13	Kannur	27.56	14.81	42.37
14	Kasargod			0
	State	33.73	9.29	43.02

A3.26. Percentage of Hired human labour hours to total human labour hours under Snake Gourd – Winter

Sl.No	District	Male	Female	Total
1	Thiruvananthapuram	16.54	0	16.54
2	Kollam	72.56	0	72.56
3	Pathanamthitta	27.11	0	27.11
4	Alappuzha	22	2.1	24.1
5	Kottayam	57.86	0.61	58.47
6	Idukki	63.68	34.99	98.67
7	Ernakulam	34.66	0	34.66
8	Thrissur	37.65	4.18	41.83
9	Palakkad	19.83	63.43	83.26
10	Malappuram	32.89	0	32.89
11	Kozhikode	18.73	0	18.73
12	Wayanad			0
13	Kannur	15.99	9.01	25
14	Kasargod	14.78	0	14.78
	State	33.33	15.03	48.36

A3.27. Percentage of Hired human labour hours to total human labour hours under Snake Gourd – Summer

Sl.No	District	Male	Female	Total
1	Thiruvananthapuram	21.44	0	21.44
2	Kollam	70.56	0	70.56
3	Pathanamthitta	23.48	0	23.48
4	Alappuzha	26.06	2.39	28.45
5	Kottayam	54.74	0.4	55.14
6	Idukki	60.8	39.2	100
7	Ernakulam	53.2	0	53.2
8	Thrissur	44.59	5.13	49.72
9	Palakkad	28.57	0	28.57
10	Malappuram	38.97	0	38.97
11	Kozhikode	12.27	0	12.27
12	Wayanad			0
13	Kannur	13.38	4.23	17.61
14	Kasargod	0	0	0
	State	39.35	3.83	43.18

A3.28. Percentage of Hired human labour hours to total human labour hours under Ladies Finger – Autumn

Sl.No	District	Male	Female	Total
1	Thiruvananthapuram	33.81	0	33.81
2	Kollam	75.65	0	75.65
3	Pathanamthitta	78.32	0	78.32
4	Alappuzha	13.67	24.24	37.91
5	Kottayam	59.32	0.8	60.12
6	Idukki			0
7	Ernakulam	53.7	0	53.7
8	Thrissur	31.69	10.54	42.23
9	Palakkad	13.12	48.94	62.06
10	Malappuram	28.22	4.17	32.39
11	Kozhikode	7.63	0	7.63
12	Wayanad			0
13	Kannur	12.84	18.52	31.36
14	Kasargod			0
	State	32.08	12.22	44.3

A3.29. Percentage of Hired human labour hours to total human labour hours under Ladies Finger – Winter

Sl.No	District	Male	Female	Total
1	Thiruvananthapuram	18.37	0	18.37
2	Kollam	70.21	0	70.21
3	Pathanamthitta	61.38	0	61.38
4	Alappuzha	40.51	5.28	45.79
5	Kottayam	55.92	0	55.92
6	Idukki	40.59	28.27	68.86
7	Ernakulam	51.44	0	51.44
8	Thrissur	40.72	13.2	53.92
9	Palakkad	12.59	53.05	65.64
10	Malappuram	33.6	0	33.6
11	Kozhikode	10.57	0	10.57
12	Wayanad			0
13	Kannur	2.78	6.48	9.26
14	Kasargod	17.79	14.58	32.37
	State	25.8	16.28	42.08

A3.30. Percentage of Hired human labour hours to total human labour hours under Ladies Finger – Summer

Sl.No	District	Male	Female	Total
1	Thiruvananthapuram	16.9	0	16.9
2	Kollam	77.56	0	77.56
3	Pathanamthitta	54.97	0	54.97
4	Alappuzha	51.69	20.61	72.3
5	Kottayam	58.74	0	58.74
6	Idukki	61.67	38.33	100
7	Ernakulam	44.73	0	44.73
8	Thrissur	32.14	3.61	35.75
9	Palakkad	29.01	23.15	52.16
10	Malappuram	35.08	0	35.08
11	Kozhikode	24.58	0	24.58
12	Wayanad			0
13	Kannur	8.42	7.36	15.78
14	Kasargod	11.78	8.01	19.79
	State	28.9	6.56	35.46

A3.31. Percentage of Hired human labour hours to total human labour hours under Cabbage – winter

Sl.No	District	Male	Female	Total
1	Idukki	57.81	37.97	95.78
	State	57.81	37.97	95.78

A3.32. Percentage of Hired human labour hours to total human labour hours under Tomato- Autumn

Sl.No	District	Male	Female	Total
1	Thiruvananthapuram			0
2	Kollam			0
3	Pathanamthitta	45.33	0	45.33
4	Alappuzha	0	62.73	62.73
5	Kottayam			0
6	Idukki			0
7	Ernakulam			0
8	Thrissur			0
9	Palakkad	14.13	65.5	79.63
10	Malappuram			0
11	Kozhikode			0
12	Wayanad			0
13	Kannur			0
14	Kasargod			0
	State	16.07	60.67	76.74

A3.33. Percentage of Hired human labour hours to total human labour hours under Tomato- Winter

Sl.No	District	Male	Female	Total
1	Thiruvananthapuram			0
2	Kollam			0
3	Pathanamthitta			0
4	Alappuzha			0
5	Kottayam			0
6	Idukki			0
7	Ernakulam			0
8	Thrissur			0
9	Palakkad	13.93	69.49	83.42
10	Malappuram			0
11	Kozhikode			0
12	Wayanad			0
13	Kannur			0
14	Kasargod			0
	State	13.93	69.49	83.42

A3.34. Percentage of Hired human labour hours to total human labour hours under Tomato- Summer

Sl.No	District	Male	Female	Total
1	Thiruvananthapuram			0
2	Kollam			0
3	Pathanamthitta	0	0	0
4	Alappuzha			0
5	Kottayam			0
6	Idukki	81.25	18.75	100
7	Ernakulam			0
8	Thrissur			0
9	Palakkad	10.21	76.14	86.35
10	Malappuram			0
11	Kozhikode			0
12	Wayanad			0
13	Kannur			0
14	Kasargod			0
	State	10.55	74.87	85.42

A3.35. Percentage of Hired human labour hours to total humanlabour hours under Beans –Summer

Sl.No	District	Male	Female	Total
1	Kozhikode	62.26	0	62.26
	State	62.26	0	62.26

A4. 1 District Wise Value of Product and by – product per hectare (in Rs) of Autumn Paddy

District	Paddy Autumn	Byproduct	Total
Thiruvananthapuram	128296	50188	178484
Kollam	114540	30425	144964
Pathanamthitta	98671	13381	112052
Alappuzha	132028	14312	146340
Kottayam	138712	298	139010
Idukki	137440	6971	144411
Ernakulam	61682	7870	69552
Thrissur	86693		86693
Palakkad	154053	1387	155441
Malappuram	83239	4893	88132
Kozhikode	59289	43374	102663
Wayanad			
Kannur	65699	34217	99917
Kasargod	87310	35611	122921
Total	104855	12863	117719

**A4. 2 District Wise Value of Product and by – product per hectare (in Rs)
of Winter Paddy**

District	Paddy Winter	Byproduct	Total
Thiruvananthapuram	143325	50775	194099
Kollam	116862	31060	147921
Pathanamthitta	99253	8733	107986
Alappuzha	93412	18221	111633
Kottayam	149086	395	149481
Idukki	100462	7563	108025
Ernakulam	118390	10555	128945
Thrissur	114968	9070	124038
Palakkad	154013	10997	165009
Malappuram	112679	14217	126896
Kozhikode	47381	36057	83438
Wayanad	119407	20806	140213
Kannur	73466	41735	115201
Kasargod	84425	36504	120930
Total	109111	15808	124919

**A4. 3 District Wise Value of Product and by – product per hectare (in Rs)
of Summer Paddy**

District	Paddy Summer	Byproduct	Total
Thiruvananthapuram	172775	42817	215592
Kollam	92413	31722	124134
Pathanamthitta	93576	4076	97652
Alappuzha	144405	30790	175194
Kottayam	175076	185	175261
Idukki	93860	11762	105622
Ernakulam	113771	13069	126840
Thrissur	130979	7360	138339
Palakkad	162448	10161	172609
Malappuram	122998	13504	136502
Kozhikode	87242	26125	113367
Wayanad	139768	25946	165714
Kannur	97612	37832	135444
Kasargod	84557	35326	119883
Total	124368	12956	137325

A4. 4 District Wise Value of Product and by – product per hectare (in Rs) of Coconut

District	Coconut	Byproduct	Total
Thiruvananthapuram	283904	2281	286185
Kollam	150028		150028
Pathanamthitta	136836	2796	139632
Alappuzha	140812	1907	142720
Kottayam	170170		170170
Idukki	140195		140195
Ernakulam	161635	4746	166381
Thrissur	149531	1022	150553
Palakkad	152953	4880	157833
Malappuram	169020	12641	181661
Kozhikode	131624	6717	138341
Wayanad	153673		153673
Kannur	170716	5378	176094
Kasargod	141647	1567	143214
Total	158504	3671	162175

A4. 5 District Wise Value of Product and by – product per hectare (in Rs) of Arecanut

District	Arecanut
Thiruvananthapuram	186947
Kollam	116768
Pathanamthitta	215380
Alappuzha	228207
Kottayam	263111
Idukki	80119
Ernakulam	527923
Thrissur	354649
Palakkad	498027
Malappuram	409245
Kozhikode	417103
Wayanad	185101
Kannur	343968
Kasargod	583440
Total	391209

A4. 6 District Wise Value of Product and by – product per hectare (in Rs) of Tapioca

District	Tapioca	Byproduct	Total
Thiruvananthapuram	588618	13957	602576
Kollam	433350	6673	440023
Pathanamthitta	608783	5029	613812
Alappuzha	728070	17217	745287
Kottayam	477099	1829	478928
Idukki	292442		292442
Ernakulam	859558	10923	870481
Thrissur	481500	54	481554
Palakkad	693064	26803	719867
Malappuram	296268	3814	300081
Kozhikode	542096	8839	550935
Wayanad	462304	510	462814
Kannur	642031	5353	647383
Kasargod	367236	5447	372683
Total	555933	8494	564427

A4. 7 District Wise Value of Product and by – product per hectare (in Rs) of Banana

District	Banana	Byproduct	Total
Thiruvananthapuram	745504	31970	777474
Kollam	539140	22017	561156
Pathanamthitta	561546	7107	568653
Alappuzha	710193	2933	713126
Kottayam	506591	10282	516874
Idukki	364697	0	364697
Ernakulam	733401	11908	745309
Thrissur	631353	196	631548
Palakkad	564754	10197	574951
Malappuram	648760	9359	658119
Kozhikode	1087612	48644	1136256
Wayanad	474673	359	475032
Kannur	684479	16322	700801
Kasargod	687056	26239	713295
Total	663508	14415	677923

A4.8 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	275964	845261	448280
2	Kollam	383131	732143	214942
3	Pathanamthitta	221958	694013	297193
4	Alappuzha	352585	3031760	606444
5	Kottayam	407631	547346	172944
6	Idukki	145730	339230	233525
7	Ernakulam	234086	1719374	638868
8	Thrissur	352117	503006	335863
9	Palakkad	303298	1494125	391177
10	Malappuram	149986	832966	294073
11	kozhikode	298441	631393	259712
12	Wayanad	152674	1674018	369983
13	Kannur	416127	395096	163942
14	Kasargod	280000	457980	390105
	State	270051	1160056	339370

A4.9 District Wise Value of Product and by – product per hectare (in Rs) of Pineapple

District	Pineapple	Byproduct	Total
Thiruvananthapuram	473746	110735	584481
Kollam	448272	58926	507197
Pathanamthitta	173338	0	173338
Alappuzha	555487	10407	565894
Kottayam	428723	8349	437072
Idukki	321712	0	321712
Ernakulam	857170	375597	1232767
Thrissur	395106	4647	399753
Palakkad	592800	90018	682818
Malappuram	567528	42738	610266
Kozhikode	567014	32441	599456
Kannur	364694	2492	367186
Kasargod	368018	15449	383468
State	535598	92796	628394

**A4. 10 District Wise Value of Product and by – product per hectare (in Rs)
of Bitter Gourd**

Sl.No	District	Autumn	Winter	Summer
1	Thiruvananthapuram	621484	558482	742254
2	Kollam	478771	494121	457684
3	Pathanamthitta	472746	469448	489052
4	Alappuzha	748609	675785	547090
5	Kottayam	464949	388549	446312
6	Idukki		216367	283107
7	Ernakulam	208418	346573	850429
8	Thrissur	281801	378979	350626
9	Palakkad	619029	555624	279933
10	Malappuram	250205	229799	230037
11	kozhikode	343083	280800	331802
12	Wayanad			
13	Kannur	410536	351191	417618
14	Kasargod		439510	423160
State		457722	438945	508169

A4. 11 District Wise Value of Product and by – product per hectare (in Rs) of Cowpea

Sl.No	District	Autumn	Winter	Summer
1	Thiruvananthapuram	520242	585808	576223
2	Kollam	458789	460787	471728
3	Pathanamthitta	408943	410471	467148
4	Alappuzha	679766	761408	855013
5	Kottayam	391603	452729	329005
6	Idukki	-	201947	196250
7	Ernakulam	306474	328041	433841
8	Thrissur	326133	367016	364107
9	Palakkad	486343	417065	117688
10	Malappuram	279830	219983	199450
11	kozhikode	497112	291984	236590
12	Wayanad	-	733061	306711
13	Kannur	443495	419154	377716
14	Kasargod	-	421890	384329
State		431854	433545	384463

**A4.12 District Wise Value of Product and by – product per hectare (in Rs)
of Cardamom**

Sl.No	District	Product
1	Idukki	353628
2	Palakkad	746701
3	Wayanad	487018
	State	589905

**A4.13. District Wise Value of Product and by – product per hectare (in Rs)
of Ash Gourd**

Sl.No	District	Autumn	Winter	Summer
1	Thiruvananthapuram	-	-	-
2	Kollam	247659	224770	220448
3	Pathanamthitta	367166	294424	271700
4	Alappuzha	493074		816345
5	Kottayam	363989	263261	287837
6	Idukki	-	-	-
7	Ernakulam	252360	265113	285564
8	Thrissur	204792	222253	206375
9	Palakkad	287267	280845	217360
10	Malappuram	126103	180984	308864
11	kozhikode	328061	494449	460592
12	Wayanad	-	-	-
13	Kannur	264445	394033	468993
14	Kasargod	-	295278	287321
	State	232944	268589	333437

**A4. 14 District Wise Value of Product and by – product per hectare (in Rs)
of Cucumber**

Sl.No	District	Autumn	Winter	Summer
1	Thiruvananthapuram	392930	413591	448593
2	Kollam	275247	151757	316906
3	Pathanamthitta	373935	268013	393011
4	Alappuzha	398104	418611	301297
5	Kottayam	132241	120888	144881
6	Idukki		98800	197600
7	Ernakulam	198421	230599	252782
8	Thrissur	174494	183173	217466
9	Palakkad	158554	198776	109250
10	Malappuram	115805	134060	194939
11	kozhikode	276146	756757	215796
12	Wayanad			
13	Kannur	297734	507970	418431
14	Kasargod		270321	232442
	State	274097	279854	279928

**A4.15 District Wise Value of Product and by – product per hectare (in Rs)
of Snake Gourd**

Sl.No	District	Autumn	Winter	Summer
1	Thiruvananthapuram	383897	348829	396780
2	Kollam	448727	511290	523317
3	Pathanamthitta	372083	341351	328253
4	Alappuzha	538313	743253	568010
5	Kottayam	386048	341736	323637
6	Idukki		268046	177261
7	Ernakulam	226254	363006	222434
8	Thrissur	258227	250119	242771
9	Palakkad	431137	331230	169480
10	Malappuram	214605	245276	412933
11	kozhikode	192290	263055	262465
12	Wayanad	-	-	-
13	Kannur	494257	400664	411950
14	Kasargod		503188	530885
State		363517	341877	332735

**A4.16. District Wise Value of Product and by – product per hectare (in Rs)
of Ladies Finger**

Sl.No	District	Autumn	Winter	Summer
1	Thiruvananthapuram	468178	447675	503816
2	Kollam	421444	393828	416936
3	Pathanamthitta	272076	259556	208226
4	Alappuzha	577919	526323	679276
5	Kottayam	271790	237549	283927
6	Idukki		277788	203546
7	Ernakulam	232711	237193	227094
8	Thrissur	239680	243185	277082
9	Palakkad	232050	263130	241919
10	Malappuram	219252	196242	279186
11	kozhikode	445737	704697	274968
12	Wayanad			
13	Kannur	313528	353511	358128
14	Kasargod		330835	282376
State		305861	318580	319807

A4.17. District Wise Value of Product and by – product per hectare (in Rs) of Cabbage Winter

Sl.No	District	Winter
1	Idukki	307824
State		307824

A4.18. District Wise Value of Product and by – product per hectare (in Rs) of Tomato

District	Autumn	Winter	Summer
Pathanamthitta	198451	-	216125
Alappuzha	946504	-	-
Idukki	-	-	98800
Palakkad	313659	192281	278575
Total	318128	192281	275767

A4.19. District Wise Value of Product and by – product per hectare (in Rs) of Beans

District	Beans - Summer
Kozhikode	446082
Total	446082

Cropwise timeseries data

Comparison table for the cost of cultivation Cost A of crops such as Paddy (3 Seasons), Coconut, Arecanut, Tapioca, Banana, Pepper, Ginger, Turmeric from 2014-15 to 2023-24 is given in the table below. Cost of Cultivation of Crops during 2014-2015 has more or less doubled during 2023-24.

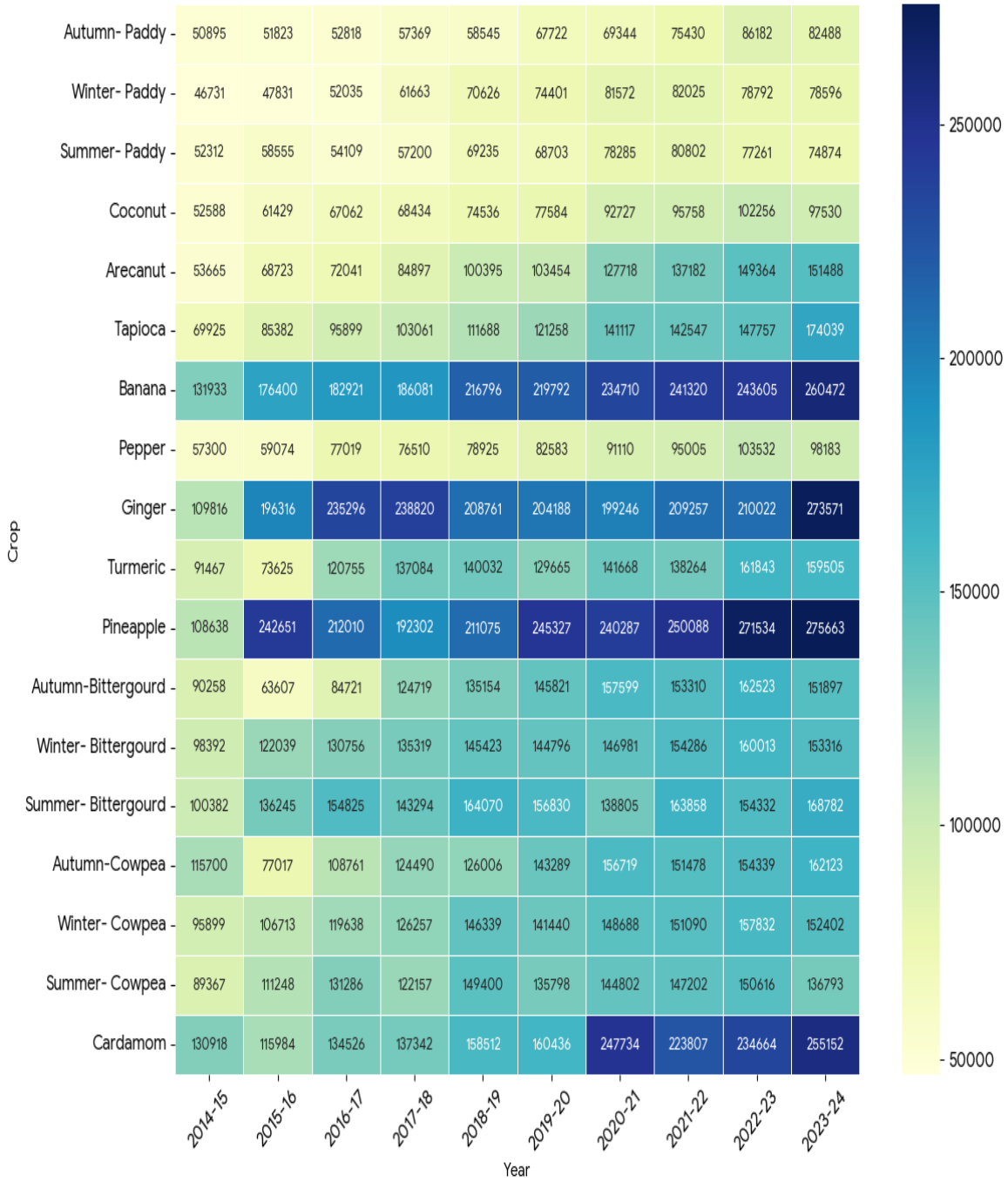
A5.1 Cropwise timeseries data

CROP	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23	2023-24
Autumn-Paddy	50895	51823	52818	57369	58545	67722	69344	75430	86182	82488
Winter-Paddy	46731	47831	52035	61663	70626	74401	81572	82025	78792	78596
Summer-Paddy	52312	58555	54109	57200	69235	68703	78285	80802	77261	74874
Coconut	52588	61429	67062	68434	74536	77584	92727	95758	102256	97530
Arecanut	53665	68723	72041	84897	100395	103454	127718	137182	149364	151488
Tapioca	69925	85382	95899	103061	111688	121258	141117	142547	147757	174039
Banana	131933	176400	182921	186081	216796	219792	234710	241320	243605	260472
Pepper	57300	59074	77019	76510	78925	82583	91110	95005	103532	98183
Ginger	109816	196316	235296	238820	208761	204188	199246	209257	210022	273571
Turmeric	91467	73625	120755	137084	140032	129665	141668	138264	161843	159505
Pineapple	108638	242651	212010	192302	211075	245327	240287	250088	271534	275663

Autumn-Bittergourd	90258	63607	84721	124719	135154	145821	157599	153310	162523	151897
Winter-Bittergourd	98392	122039	130756	135319	145423	144796	146981	154286	160013	153316
Summer-Bittergourd	100382	136245	154825	143294	164070	156830	138805	163858	154332	168782
Autumn-Cowpea	115700	77017	108761	124490	126006	143289	156719	151478	154339	162123
Winter-Cowpea	95899	106713	119638	126257	146339	141440	148688	151090	157832	152402
Summer-Cowpea	89367	111248	131286	122157	149400	135798	144802	147202	150616	136793
Cardamom	130918	115984	134526	137342	158512	160436	247734	223807	234664	255152
Autumn-Ash gourd	0	0	0	0	0	0	79887	79141	85115	89431
Winter- Ash gourd	0	0	0	0	0	0	60767	90859	94700	95953
Summer-Ash gourd	0	0	0	0	0	0	69373	114748	93615	120187
Autumn-Cucumber	0	0	0	0	0	0	71630	102037	79768	102736
Winter-Cucumber	0	0	0	0	0	0	85948	95466	103357	99412
Summer-Cucumber	0	0	0	0	0	0	81859	103591	112311	111935

Autumn-Snakegourd	0	0	0	0	0	0	108657	134465	135244	143464
Winter-Snakegourd	0	0	0	0	0	0	132010	136578	141033	131778
Summer-Snakegourd	0	0	0	0	0	0	134216	147236	121911	137957
Autumn-Ladiesfinger	0	0	0	0	0	0	84085	97680	115772	124238
Winter-Ladiesfinger	0	0	0	0	0	0	91403	96742	100577	114056
Summer-Ladiesfinger	0	0	0	0	0	0	100322	124787	113397	120757
winter-Cabbage	0	0	0	0	0	0	0	0	0	150996
Autumn-Tomato	0	0	0	0	0	0	135901	130976	146250	151471
Winter-Tomato	0	0	0	0	0	0	128492	151040	144979	149536
Summer-Tomato	0	0	0	0	0	0	159132	180259	183473	189198
Summer-Beans	0	0	0	0	0	0	0	0	0	248661

A5.2 Figure on Cropwise comparison of Cost A(statewide) from 2014-15 to 2023-24



A5.3. Figure on Cropwise comparison of Cost A(statewide)from 2020-21 to 2023-24

