



## A STUDY ON PROBLEMS AND CHALLENGES FACED BY THE CARDAMOM GROWERS IN TAMILNADU

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### ABSTRACT:

Cardamom is traded as a bulk and graded produce. Cardamom is graded by using sieve and fetches different prices based on their size, colour and freshness, command varied prices. The commercial part of cardamom is the fruit (capsule) of the plant that is used as a spice and a flavoring agent. It is considered to be a versatile spice, as it is used in both sweet and salty foods. Till 2000, India used to be the largest producer of Cardamom, and thereafter, Guatemala pushed her to the second position. There are more number of problems faced by the cardamom growers namely lack of proper pest management, lack of water management and poor marketing management. Most of the time benefits to reach by the middle men not any of the cardamom growers. The traditional methods of drying the capsules include sun drying and drying over the fire. They both have disadvantages as the produce rots fast during rainy and overcast days when the produce is dried outside in the open. Also, when the crop is dried over the fire, the spice loses some of its flavor and hence the quality is lowered. Therefore, it is required that bhattis or other improved dryers be constructed or installed in the villages and the villagers be taught to use them to their advantage.

**KEYWORDS** – lack of open market, lack of financial assistance, no government intervention and so on.

### INTRODUCTION

India spices have been playing a great role for strengthening the economic conditions since the ancient time period. Now at this moment of modernization and technological world, though the spice trade has changed in various bounds and leaps then too the role and importance still exists the same. India Food Spices are used to lift up the taste and flavors of Indian delicacies. Spices like cinnamon, cardamoms, whole garam masala, mint, cilantro, etc are highly used for doing wonders in the recipes. Indian cooking and tasty Indian recipes are widely imparted with these spices. They are not just ingredients but in fact they have been used for doing magics and creating the charm, flavor and aroma in Indian food.

Cardamom, popularly known as the "Queen of Spices," has a checkered history, dating back to the Vedic period (ca. 3000 bc) and is among the ingredients poured into the sacrificial fire during the Hindu marriage. Today cardamom commands a leading position among the spices of immense commercial importance and is finding its way into the dietary habits of millions around the world, even among people on



the European and North American continents, hitherto unaccustomed to its use. Cardamom use ranges from a simple dietary constituent to that of immense pharmacological benefits. Although beset with many problems, both agronomic and economic, it is a safe bet that next to black pepper, cardamom will emerge in the world market as a spice of immense commercial importance. Although India was the world leader in cardamom production, starting from the 1970s the country began to slide down both in production and productivity, while Guatemala, took the leading position, although the cardamom produced there is of

inferior quality<sup>1</sup>.

India consumes almost 90% of the domestic production of cardamom. About 5-8% of its total production, is exported, mostly the premium grade. India also exports value added products of cardamom like cardamom oil, and oleoresins to the European countries. Saudi Arabia, Japan, Malaysia, UK, Kuwait are the major countries that import cardamom and value added products of cardamom from India. Saudi Arabia (42%) followed by Japan (39%) are the largest markets for Indian cardamom.

### INDIAN SCENARIO - DEMAND AND SUPPLY

The commercial part of cardamom is the fruit (capsule) of the plant that is used as a spice and a flavoring agent. It is considered to be a versatile spice, as it is used in both sweet and salty foods. Oil from the seeds and the leftover resin have their usage in processed foods, tonics, liquors and perfumes. The fruit also finds significant usage in Ayurvedic medicines for dental infections, digestive disorders, etc., as it has healing properties.

Till 2000, India used to be the largest producer of Cardamom, and thereafter, Guatemala pushed her to the second position. Cardamom cultivation is concentrated on the Western Ghats in the country; and the Western Ghats are also known as “Cardamom Hills”. In 2012-13, as per provisional trade estimates, India's production is around 12,000 MT.

#### Following states are the major producers of cardamom in India:

1. Kerala – 70%
2. Karnataka – 20%
3. Tamil Nadu – 10%

Cardamom is traded as a bulk and graded produce. Cardamom is graded by using sieve and fetches different prices based on their size, colour and freshness, command varied prices. The 7-mm and above grade with fancy green colour commands a premium over other grades.

Cardamom finds its place in every kitchen in the world. Cardamom goes into tea, coffee, snacks, sweet dishes, rice preparations, soft drinks - almost all favorite food items of the world. Guatemala produces around 25,000 MT yearly, the largest in the world, accounting for almost 66% of the total global production.

#### Tamil Nadu production of Cardamom (Small) (Area in Hect., Prodn. in Tonnes., Yield in Kg/Hect)

Financial year	Total Area	Yielding Area	Production	Yield
2012-13	5160	3708	850	229
2013-14	5160	3545	950	268
2014 -15	5160	3545	950	268
2015-16	5160	3635	950	262
2016-17	5160	3556	975	274

Source: Annual Report of spices board of India

The above table reveals that from last five years total amount productivity is not increased in measurable numbers. Most of the financial year production value does not grow in numbers.

There are reasons playing major role in production of cardamom cultivation.

<sup>1</sup> *The Agronomy and Economy of Cardamom (Elettaria cardamomum M.): The “Queen of Spices”*. Available from: [https://www.researchgate.net/publication/251449057\\_The\\_Agronomy\\_and\\_Economy\\_of\\_Cardamom\\_Elettaria\\_cardamomum\\_M\\_The\\_Queen\\_of\\_Spices](https://www.researchgate.net/publication/251449057_The_Agronomy_and_Economy_of_Cardamom_Elettaria_cardamomum_M_The_Queen_of_Spices) [accessed Aug 29 2018].

**Export of Small cardamom from India**

(QTY. IN TONNES &amp; VALUE IN Rs. LAKHS)

Financial year	Quantity	Amount in Rs.
2013-14	3,600	28,380.88
2014-15	3,795	32,346.75
2015-16	5,500	44,982.75
2016-17	3,850	42,150.00
2017-18	5,680	60,908.50

Source: Annual Report of spices board of India

**IMPORTANCE OF THE STUDY:**

The demand for spices in the aggregate is relatively stable in the short run as in the case of any other agriculture produce like food stuffs and raw materials. The supply of agricultural products fluctuate widely from year to year, from one part of the year to another, and from one area to another, one farm to another on account of variations in acreage under cultivation and variation in yields due to seasonal and weather conditions, more supply during certain months of the year, variations in the conditions of marketing, variations in imports or exports, long chain of intermediaries between the consumers and producers etc. The fluctuation in supply constitutes the most important factor responsible for the wide fluctuations in prices of spice crops.

The cost of cultivation is very important in the formulation of agricultural price policies. Detailed inquiries into the cost of cultivation are very costly and cannot be conducted as an annual routine. At the farm level, the relative profitability, which is determined by the value of output and the cost of cultivation, is one of the important factors influencing the allocation of resources, including land for alternative crops by the farmers.

There are more number of problems faced by the cardamom growers namely lack of proper pest management, lack of water management and poor marketing management. Most of the time benefits to reach by the middle men not any of the cardamom growers.

**PROBLEMS FACED BY THE CARDAMOM GROWERS****Financial Assistance**

The major problem in cardamom cultivation is the lack of sufficient finance. Nearly ninety per cent of the cardamom growers depend on agricultural income for their livelihood. So, the majority of their income spent for their own expenses. This resulted in reducing the level of inputs for proper cultivation of cardamom. Likewise, the cost of fertilizers doubled recently. No banks are ready to give loan without security. If they avail loan there are lot of formalities and documents is needed for it.

**Organic cultivation method**

Organic cultivation method is also used for cultivation cardamom. The usually used organic cultivation methods are Neem cake, waste leaf and such other natural wastes, i.e., earth worm compost. The study reveals that 100 per cent of growers are using the organic cultivation method for their cultivation of cardamom. Most of the growers reported that if cultivation method alone is used next year's production will show a decreasing trend and may also cause loss of their plantation due to several diseases. At the same time growers are aware about the side effect of fertilizers which may cause for different types of diseases for men and decreases the fertility of land etc. They argue that cardamom cultivation must be transformed into organic cultivation method.

### **Fertilizers**

Fertilizers are applied in the month of June/July. Generally used chemicals are Phosphorous, Potash and Factomphose 20-20-0-15. Fertilizers are applied twice in a year. The second part is given in the month of December/January. Most of the growers use both fertilizers and organic manure simultaneously.

### **Irrigation Source**

There is no particular irrigation scheme for the cultivation of cardamom. No financial aids are provided from the Spices Board to up-bring water requirement and to upgrade cardamom cultivation and so they have to depend on the natural facilities in the form of ponds, check dams etc.

### **Absence of Open Market:**

All most of the farmers are of the opinion that they are not getting reasonable price for their product because of the auction method. The farmers have no voice in deciding the price of their product. They argue that if there is open market it will lead to high price for their product.

### **Labour Problem:**

Lack of labours and high wages demanded by the labourers are other problems faced by the farmers. For marginal farmers, works are done by themselves and for large and small farmers hired labourers are needed. But now-a-days, the number of labours is very less and they demand high salary.

### **STATEMENT OF THE PROBLEM**

Though the cultivation area in India is very less, the quality and standard of the product cultivated is of global standard. This has kept the product to be in demand by global nations as for as marketing is concerned the state of Tamil nadu has plenty of dealers to sell it in the local as it is in the global market. The exports of cardamom are mainly done through middlemen who work on a commission basis and have disabled farmers from enjoying the upper hand in pricing and also problems of transport. There is no policy support to expand production, provide credit facilities to farmers and support the emergence of local stockiest.

This study is an attempt to discusses the cultivation and marketing problems and issues.

### **OBJECTIVES OF THE STUDY**

1. To identify the nature and level of cultivators of cardamom and to study their socio economic conditions, in Tamil Nadu
2. To study the problems faced by farmers in the marketing of cardamom in Tamil Nadu.
3. To offer suggestions for better marketing of cardamom in Tamil Nadu

### **RESEARCH METHODOLOGY**

The research design adopted in this study is descriptive research. The researcher has used both the primary and secondary data. The primary data were collected from the cardamom growers in Kerala and Tamil Nadu using interview schedule method. The collected primary data were used to coined significantly in the questions and drawn the attention of the growers with answers. Secondary data were collected from the spices board; spices research station at Tamilnadu and the related articles and sites. The sample is 50 which are selected based on the convenience sampling from the major cultivation areas like Bodinayakanur, Kumily, Thekkady, Kumbum.

**Karl Pearson's Co-Efficient Of Correlation Between  
Respondents' Age and their overall production problems faced by cardamom growers**

S.No	Production Problems cardamom growers	Mean	Std. Deviation	Correlation value	Statistical Interface
1.	Unfavorable weather conditions	1.41	.868	(-)0.080	0.956 > 0.05 Not Significant
2.	Labour Problem	1.33	.926	0.130	0.302 > 0.05 Not Significant
3.	Cost of Fertilizers:	1.07	.918	(-)0.170	0.044 > 0.05 Significant
4.	Insufficient irrigation facility	1.61	.946	0.078	0.821 > 0.05 Not Significant
5.	Non-availability of improved varieties:	1.20	.926	(-)0.060	0.743 > 0.05 Not Significant
6.	Continuous crop failure	1.24	.954	1.563	0.354 > 0.05 Not Significant
7.	Overall perception about production problems faced by cardamom growers	6.04	2.882	0.325	0.121 > 0.05 Not Significant

#### Research hypothesis

There is a significant relationship between age of the respondents and their overall perception of production problems faced by cardamom growers .

#### Null hypothesis

There is no significant relationship between age of the respondents and their overall perception of production problems faced by cardamom growers.

#### Statistical tools

Karl Pearson co-efficient correlation Test was used for the above table.

#### FINDINGS

The above table reveals that there is no significant relationship between age of the respondents and their overall perception of production problems faced by cardamom growers. Hence, the calculated value is less than table value ( $P < 0.05$ ). So the research hypothesis is accepted and the null hypothesis is rejected

#### Karl Pearson correlation test

	Mean	Std. Deviation	R value	Statistical inference
Lack of financial assistance	2.65	1.394	-0.067	0.144 > 0.05 Not significant
Lack of open market	2.38	1.382	0.047	0.301 > 0.05 Not significant
Lack of government support	2.56	1.376	-0.017	0.718 > 0.05 Not significant
Lack of good storage facilities	2.56	1.413	0.004	0.929 > 0.05 Not significant

Lack of good transportation facilities.	2.58	1.432	0.203	0.000<0.05 Significant
Distance of the market from the fields.	2.37	1.328	0.089	0.052>0.05 Not significant
High transportation cost	2.51	1.368	-0.066	0.151>0.05 Not significant
<b>Overall perception of problems of cardamom growers</b>	<b>33.5250</b>	<b>6.39247</b>	<b>-0.045</b>	<b>0.323&gt;0.05</b> <b>Not significant</b>

### Research hypothesis

There is a significant relationship between sex of the respondents and their overall perception of problems of cardamom growers .

### Null hypothesis

There is no significant relationship between sex of the respondents and their overall perception of problems of cardamom growers.

### Statistical tools

Karl Pearson correlation test was used for the above table.

### FINDINGS

The above table reveals that there is no significant relationship between sex of the respondents and their overall perception of problems of cardamom growers. Hence, the calculated value greater than table value ( $P < 0.05$ ). So the research hypothesis is rejected and the null hypothesis is accepted.

### FINDINGS OF THE STUDY

1. 70.3% of the respondents agree with the statement that there are no trained labourers for cardamom cultivation
2. 72.3% of the respondents agree with the statement that the labourers are not aware of usage of fertilizers ratio
3. 63.1% of the respondents agree with the statement that storage facilities are not available in the cardamom products
4. 77.8% of the respondents agree with the statement that financial problems are the major reasons for cardamom production.
5. 70.4% of the respondents agree with the statement that lack of fertilizer and seeds are impacting the cardamom production
6. 85.1% of the respondents agree with the statement that village local authorities do not help the farmers for trading.

### SUGGESTIONS

- Government should take initiative and provide the growers with the necessary training facilities for scientific cultivation of large cardamom.
- Farmers should be taught to identify and control insect-pest and disease incidence at an early controllable stage and they should be introduced to INM, IPM and IDM.
- Farmers need to be trained in post harvest handling of produce, like sorting, grading and curing to avoid post-harvest losses.
- Broadcasting of market information in radios and television is an essential step in raising awareness about the up to date market information amongst the growers.

- Construction of durable storage houses that can protect the produce from harsh weather and climate
- The traditional methods of drying the capsules include sun drying and drying over the fire. They both have disadvantages as the produce rots fast during rainy and overcast days when the produce is dried outside in the open. Also, when the crop is dried over the fire, the spice loses some of its flavor and hence the quality is lowered. Therefore, it is required that bhattis or other improved dryers be constructed or installed in the villages and the villagers be taught to use them to their advantage.
- Promoting cooperative methods of marketing among the growers is essential in order to reduce marketing cost of the producers.
- The government takes initiatives in better transportation facilities, better roads and reasonable transportation cost will encourage the growers to strive better and also encourage other farmers to start large cardamom cultivation.

## CONCLUSION

Agriculture is the backbone of every nation to meet its basic needs required for survival and aids in stability, sustainability and strengthens the economy. The metamorphosis was brought by not only technological changes such as green revolution, but also by institutional innovations in delivering farm inputs and marketing of output. Defining what constitutes a smallholder is not merely concerned with setting a threshold in terms of hectares. In order to avoid isolation of small-scale farmers from the benefits of agricultural produce they need to be integrated and informed with the market knowledge like fluctuations, demand and supply concepts which are the core of economy. India has huge potential for agricultural production, because it has a wide geographical range. As most of the rural people in India are engaged in agriculture and its allied activities, more and more provisions must be made available to attain success in the international market, it is very essential that research activity is taken up on flavour perseverance, colour retention and packaging etc. The more basic issues of massive deforestation and degradation of ecological balance in the Cardamom hills is a threat. It is important to evolve schemes like soil conservation, land development etc. and also after estuation schemes should be promoted in these areas. It is necessary to ensure some kind of stability in price, particularly for the small growers, who otherwise seem to have very little incentive for cultivating the crop. Efforts should be made in improving the productivity, and production and there buy attaining a lower unit cost of production together with implementation of appropriate market development strategies will keep Cardamom industry in the direction for overall growth in the years to come.

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