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# Problems of Pepper Cultivation- A Study Based on Idukki District

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## **ABSTRACT**

Spices have a very important role in the domestic & foreign market. Pepper, 'The King of Spices' has a significant export orientation and it procures more than 40% of the foreign exchange earnings in spices export. At present pepper production shows the decreasing trend. India's share in world pepper production declined from 23.69 percent in 1970 -1971 to 12.38 percent in 2016 – 2017. The study is confined to Idukki district only because most of the pepper production is from Idukki district. This study aims at provides an understanding of the structure and functioning of the pepper plantation and its development problems. The data and other information required for the study were collected from both primary and secondary sources. This study relies growers are losing their confidence in pepper cultivation mainly on account of its non-remunerative nature and climatic changes.

Key Word: - Pepper, production, productivity, Yield

#### 1. INTRODUCTION

The richness of the culture and the fragrance of the spices were the major sources of glory of the ancient India. It is really amazing to see that India could maintain her supremacy in the production and trade of spices even from the Vedic age dating back to 6000 BC, to the modern era of the 3<sup>rd</sup> millennium.

India, known all over the world as the land of spices, has the most favourable climate and soil conditions for growing spices and is the most important among spices producing countries in the world. As per terminology on spices by Indian standards, the important among them are pepper, ginger, cardamom etc.

Pepper, the king of spices, famous as "Black Gold" botanically known as 'piper nigrum' is one of the oldest and the most popular spices in the world. In early historic times, black pepper was widely cultivated in the tropics of South Asia; it is a perennial climbing vine indigenous to the Malabar cost of India.

Pepper production has been dwindling over the past 10 years due to different reasons. The area under pepper cultivation also has been shrinking every year from 218,670 hectares in 2002 to 182,000 hectares in 2012, According to reports by international pepper community (IPC) import and export of pepper is also showing a declining trend.

## 1.2 RELEVANCE OF THE STUDY

Spices have a very important role in the domestic & foreign market. Among them, pepper is one of the few agricultural commodities produced in India which has a significant export orientation, because it procures more than 40% of the foreign exchange earnings from spices export. Being a tropical country, majority of the people in India regularly use different types of spices for their daily cuisine. More than hundred cores of people in the country offer a very vast domestic market base for spices. Similarly, almost all the states of India produce one or more of spices but Kerala has a remarkable role in pepper production. It is to be noticed that the major portion of the quality Pepper produced in Kerala comes from Idukki and the district is chosen for study purpose. Hence, the study is based on Idukki district only because most of the pepper production is from Idukki district. This study provides the researcher with an understanding of the structure and functioning of the pepper plantation and its development problems.

#### 1.3 STATEMENT OF THE PROBLEM

Scientific methods and techniques for effective marketing of spices and their associated products will be highly helpful to the general economic growth of our State because there are thousands of people depending on the spices sector for their livelihood including the producers, domestic traders, exporters, and the workers.

Unfortunately, our spices sector is really suffocating due to a variety of problems. Generally, the price of a commodity must be either cost based or demand based. However a close observation of the prices trends show that this principle does not have much significance in the case of our major spices pepper. The producers of pepper never get the benefits of price hikes but they have to bear all the evils of adverse market conditions. This also shows that something wrong with the present marketing system.

Another factor is that the Government investment in the sector is increasing year by year but there is no corresponding growth either in the production or trade of pepper. Climatic changes is the another problems facing the pepper. We have best quality spices, the government and other agencies are trying their level best to increase production and export, the producers are trying hard to increase production and productivity, but still then our spices sector is facing a total doom. All these factors inspired the researcher to go deep into the problems and prospects of the pepper cultivation of Kerala with special reference to Idukki District.

#### 1.4 OBJECTIVES OF THE STUDY

- 1. To create basic awareness about pepper cultivation, production and Marketing.
- 2. To understand the problems of pepper cultivator in Idukki District.
- 3. To analyze the trends in area, production and Productivity of pepper in Idukki District.

#### 1.5 RESEARCH METHODOLOGY

Research methodology is a way to systematically solve the research problem. It is a blue print of a research. The research methodology is the general pattern of organizing the procedure for collecting valid and reliable data for n investigation. It gives a detailed description of the research procedures that are followed during the investigation here gives detailed information about sampling size, sampling techniques sources of data, tools for data collection and analysis.

## 1.5.1 Sample size & Sampling techniques

The study is a sample study it is impossible to conduct a census study because of large size of the universe. Therefore, the researcher believes that a sample study would be sufficient.

The sample size is 50 cultivators. The district is divided into 5 taluks, namely Udumbanchola, Thodupuzha, Peerumadu, Devikulam and Idukki. Among them Udumbanchola is ranked first in the production of pepper in Idukki district. All the villages in Udumbanchola taluk are listed and then 5 of them were selected at random. The villages thus selected were vandanmedu, Kattappana, Udumbanchola, Kanchiyar and Nedumkandam.

#### 1.5.2 Source of Data

This study is a descriptive nature. The data and other information required for the study were collected from both primary and secondary sources. Primary data were collected from the respondents directly, using a structured interview schedule and the secondary data were collected from various sources including libraries, journals, newspapers and websites. Primary data is extensively used and secondary data is used to intensity and support primary data.

## 1.5.3 Tools for data collection & analysis

The researcher adopted questionnaire and directive interview schedule as the methods for data collection. The self made questionnaire consisted of 29 questions. All the data collected are classified and tabulated to vender comprehension. The main statistical tools like percentages, averages graphs etc are widely used for analyzing data and arriving at conclusions.

## 1.6 LIMITATION OF THE STUDY

The important limitations of the study were the following:

- 1. The main limitation for the completion of this, study was lack of adequate time.
- 2. Primary data is collected from farmers also generally don't keep any account mostly the information comes from their memory. Some they were reluctant to reveal the aspects regarding income and production and they feared the information may be used the taxation purposes.
- 3. Though the plantation sector occupier an important place in Kerala economy, data for the study were collected sample from one district only.
- 4. The study is based on variables related with agricultural, climatic and economic conditions, and it is impossible to have complete precision in such studies.

#### 1.7 REVIEW OF LITERATURE

Ratish & Dr. Roy (2019) conducted 'a study on pepper cultivation in Kerala.' This paper is based on the secondary data and the information retrieved from various publications like official reports, spices board etc. This study reviles that, the major portion of black pepper production in the country is accounted by Kerala and Karnataka. In the country, Kerala accounts for 75 percent of the total production, the production has recorded a slight increase in 2014-15 from 40.6 tonnes to 42.1 tonnes in 2015-16. The main problems of pepper cultivations are the frequent attack of diseases, lack of pest control measures, lack of fertilizer, water facilities, climatic conditions and nature of soil.

**T.S senthilkumar and Swarupa Uma P** (2018) in their article entitled 'A Quantitative description of pepper cultivation in Kerala' has analyzed part records of production, yield of pepper in India and area, production, Productivity, varieties, price changes of pepper cultivation in Kerala. According to them, conversion of black pepper into white pepper is a simple value addition process, which the producers themselves can apply for making the pepper production more profitable.

P. Resmi, L.B Kunnal and some others (2014) explains technological change in black pepper production through article 'Technological change in black pepper production in Idukki district of Kerala: A decomposition analysis.' A study in the district was conducted to find whether there is technological change in black pepper production. Here Cobb-Douglas production functions and Bisaliah's decomposition model were used for the analysis. In case of modern varieties age of vines, human labour and plant protection measures adopted were found to be positive and significant with elasticities 0.896, 0.041 and 0.058 respectively. In summary in case of MVs age of vines, human labour and plant protection measures adopted were found to be positive and significant. Other variables like number of vines and manures and fertilizers applied were not statistically significant i.e. they were not found to affect the yield. The variable manures and fertilizers applied were affecting the yield in an adverse manner while number of vines had a positive impact on yield.

**Regeena** (2014) made a study on economic analysis of black pepper cultivation in Kerala. This research paper covered black pepper cultivation in Kerala and also import and export. She pointed out that the future strategy for pepper cultivation. This study is descriptive in nature, purely based on secondary data on area, production and exports blushed by different government departments for the analysis.

**Sharama** (2006) examined the prospects of India's pepper trade regaining past glory. On analysis he found that India could regain its past glory in black pepper if all the concerned agencies put in a strong front with combined efforts and practical strategies to revive black pepper. For this farmers needed guidance from organization like Spices Board, Agriculture Universities and even NGS's

#### 1.8 RESULT AND ANALYSIS

This Study shows that pepper production had its own importance. Pepper cultivators face lot of problems. Following is the important result of this study.

## 1.8.1 Area and production of pepper in India

In India, pepper is cultivated in the state of Kerala, Karnataka and Tamil Nadu. area under pepper cultivation in India is showing a gradually decreasing trend. In 2012-2013 it reached at the level of 20, 1381 hectares of cultivable area 55,000 tons of production. In 2018 - 2019, it reached at the level of 5638 hectares of cultivable area 3000 tone of production.

## 1.8.2 Forgin Trade

Highest export in the last decade was reported in 1994; approximately 94% of total pepper production was exported. The pepper export from India, from 1991, shows a downward trend. With 13031 MT exports in 1991, it went up to the highest at 48661 MT in 1994 and then witnessed almost a continuous decline upto 14148 MT in 2005, except the year 1997 when it reached 47,624 MT. As a result of this interestingly, the stock carryover was 30,866 tons and 30,666 tons in 2002 & 2003 respectively because of stagnation of International demand for Indian pepper. Exports increased to 17,363 MT in 2006 and 28,750 MT in 2007 and 35,000 MT in 2008. The Government provided export subsidy during 2007 in order to encourage exports. In last year 2018-2019 our export was 13,540 tonnes.

The import of pepper into India has been increasing gradually from 1,472 MT in 1991 to 17,725 MT in 2005. As per the current Foreign Trade policy, there is no quantitative restriction on import of spices into India. The tariff for imports has also been steadily brought down. Under the bilateral agreement with Sri Lanka, duty free import of spices is permitted. Duty free imports are possible for value addition and re-export. Traditionally India has been an exporter of pepper. India has a more or less stable production of 55,000 - 65,000 MT of pepper during 1992-2002. Since production has stabilized and domestic demand is increasing, import of pepper has increased considerably

after 2000. According to the recent statistics released by the Spice Board of India, 17,725 MT pepper is expected to be imported in 2004-05 which is 3,391 MT more than the previous year import. In 2018-2019 the total imports was 29,650 tonnes.

## 1.8.3 Pepper in Kerala

"Black pepper is one of the important crops which provides major source of Income and employment for rural households in Kerala where more than 2.5 lakhs farm families are involved in pepper cultivation"

(Govt. of India, 2009)

Pepper cultivation can be seen throughout the length and breadth of the State. The reason is that pepper can be cultivated as a mixed crop, either in Cocoanut garden, in cardamom plantation, in areca nut garden or can be grown with jackfruit or mango tree. Pepper plant is susceptible to the various climatic Conditions of the state. Hence, it can be considered as a more general crop than any other spices of the state. Kerala alone amounts for 94% of the total area and 96% of the total production of pepper in India Karnataka, Tamil Nadu and Kerala are the major pepper productivity states in the country Idukki and Wyanadu are the two major pepper producing districts in Kerala.

## 1.8.4 District wise production and productivity of pepper

Kerala pepper is cultivated in all most all districts. Idukki district alone constitutes 31% of yielding area and 48% of production. The following table has shown the details about the district wise production of pepper in Kerala. The productivity of pepper is highest in Idukki district that is 501 to 590 kg and the lowest in Kottayam.

## 1.8.5 Pepper production in Idukki district

Dreams built on pepper fortunes no longer seem to turn real in Idukki, the most important centre of its cultivation in India, as elsewhere in the state. Out of a total plantation of 182.38 thousand hectares of pepper crop in the state, Idukki registered 49.75 thousand hectares.

The main reasons for dominance of pepper production in Idukki can be because of the following facts. Idukki district is situating in high range which are surrounded by hilly regions. This geographical position coupled with the climate and the suitable soil culminated in higher level of production in Idukki.

## 1.8.6 Production and area under pepper in Idukki district

Idukki is the largest pepper producing district in Kerala. Idukki district is dividing into four taluk. Following table shows contribution of pepper production from each taluk in Idukki district. Udumbanchola taluk along produce 45% of total production. Pepper is grown virtually in every farm holding or homestead garden and hence is

deeply associated with income and livelihood of majority of farmers. Pepper is estimated to contribute about 20% of the agriculture income of the district. It is mostly an intercroand a pure crop in un-estimated small area.

## 1.8.7 Taluk wise area production and productivity of pepper.

The area under pepper cultivation in the taluks in Idukki district shows that Udumbanchola taluk contribution 37% of the total area of pepper and 39% of yielding area of pepper in Idukki district in 2007- 2008

In Idukki district Udumbanchola taluk alone constitutes 45% of production and 39% of Pepper Peerumadu contribution 31% of production and 37.5% of yielding area followed by Devikulam 19% and 21.3% of pepper production and yielding area respectively. Thodupuzha contribution 5% and 22% of pepper production and yielding area respectively.

In Idukki district, Udumbanchola Taluk alone has 19402 hectares of pepper plantation constituting 48 percent of the total area. In Kerala 60 percent Marginal holders, 20.3 percent large holders and 19.7 percent are small hold. In udumbanchola 53.33 percent holdings are Marginal holders while 24 percent holdings are small holders and 22.67 percent are large holders.

Predominance of marginal growers and low productivity are the major problem faced by the farmers. Among the 50 growers, Marginal growers are 27 in number with less than 1 hectares of land.

Over dependence on borrowed funds and fertilizer consumption are the other problems faced by the farmer. For financing, 30 growers depend upon borrowed and own funds.

Organic Manure Consumption and possession of the property affects the farmers. The study reveals that 60% of growers use organic manure. But none of the growers use manure alone.

Insufficient Institutional Assistance and Awareness also affects the farmers. Among 50 growers, 31 growers do not get assistance from any agency other than Spices Board.

Almost all are more or less equally aware of the schemes – 40 percent of the growers are aware of the Spices Board Schemes mentioned above.

The main reason for not investing in the schemes is non- awareness of each scheme. It is also noted that the people are more aware about the subsidized supply of pepper thresher scheme than any other scheme. 73.33 percent of growers have availed only one of the schemes.

Growers opinion about Spices Board Schemes with regard to the extension advisory scheme is that the extensions Visits, advise etc given are insufficient.

The working of the Spices Board with regard to pepper development is not at all satisfactory. About 54% of people suggested that the working of the Board is not benefitting them. All growers suggested that more improvement is needed in the working of the Spice Board.

## 1.9 MAJOR PROBLEMS OF PEPPER CULTIVATION IN IDUKKI

- Non availability of high yielding improved varieties of pepper plants suitable to different areas.
- The selling prices turned pepper cultivation in Kerala unprofitable and unattractive.
- The majority of the pepper growers in Idukki district are small and marginal farmers.
- Low productivity is another main problem of pepper cultivation in Idukki district.
- Erratic weather conditions badly affect the production of black pepper.
- Lack of labours and the marginal productivity of labour are very low.
- ➤ High wage rates of labours prevailing in the pepper growing area.
- Migration of agricultural workers to other fields of occupation.
- Lack of finance, unavailability of credit facilities and indebtedness of pepper growers.
- Less initiatives from the state and center governments.

## 1.10 CONCLUSION

The growers are losing their confidence in pepper cultivation mainly on account of its non-remunerative nature involved in it. Naturally this forces them to switch over to other dependable remunerative crops. They are of the opinion that Spices Board's functioning is not satisfactory due to the following reasons. The Board does not seem to help them during crisis. They has to make the growers confident by evolving and implementing new development measures and to revitalize its present strategies, programmers etc.

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