
Cultivation of Cotton: A Study on Factors and Problems

Dr. P. Mohanasundaram*

*Associate Professor in Management, Valluvar college of Science and Management, Karur

ABSTRACT:

Cotton is one of the most important commercial cash crops in India and plays a dominant role in the industrial and agricultural economy of the country. India is one of the major producers of cotton in the world with the largest acreage, almost one-fourth of the world's area. The production share is, however, only 13.5% ranking third after China and USA. India is an agrarian economy with 70% of its population living in villages with agriculture as the main source of livelihood. Agriculture accounts for 22% of the GDP and provides direct investment employment to 58% of the country's population.

Cotton crop is one of the principal crops in India and enjoys pride of place and unique position in our country. It is largely cultivated in rain fed conditions and 74% of the area in our country is dependent on rainfall, while the remaining areas have access to supplementary irrigation. Against this background, this study is focused on factors influencing the cotton cultivation and problems in cotton cultivation in Gobichettipalayam Taluk.

INTRODUCTION

Agricultural sector in India is reeling under the pressure of natural calamities on the one hand and starving for credit and modernization on the other. The agricultural sector registered a rate of growth at 9.07% in 2013-14 as against 5.2% in 2012-13. The tenth five year plan had targeted growth of agricultural GDP at 4% per annum to make up for the deceleration in the later half of the 1990's.

Cotton is largely grown in states like Maharashtra, Gujarat, Karnataka, Madhya Pradesh, Punjab, Rajasthan, Andhra Pradesh, Haryana and Tamil nadu. Indian cotton production this season is estimated at 280 lakh bales of 170 kg and for the next season it has been projected at a minimum of 300 lakh bales. The area under cotton cultivation has also shown significant increase with about 90 lakh hectares. It is projected to touch 95 lakh hectares. This increase in area is because of the fact that more and more farmers are switching over to cotton from other crops like sugarcane, pulses. It is significant to note that the contribution of cotton to the total production in the country, this season is estimated at about 40 percent and for the coming season it has been projected at 55 percent. It is not surprising area under the traditional varieties and hybrids are now making way to cotton developed by private sector seed companies particularly in Coimbatore, Salem and Erode districts of Tamil Nadu considered as the bastion of cotton production.

The Indian cotton farmers never had it so good with a record crop of 300 lakh bales (each of 170 kg). This year India ranks second in the world cotton production having overtaken us and standing next to China.

Modern cotton production technology relies heavily on the use of fertilizers and on chemicals to control insect pests, diseases and weeds resulting in large scale environmental pollution posing hazards to human and animal life besides poor profitability in cotton farming. This has basically prompted the demand for organically cultivated eco-friendly or green cotton.¹

Cotton is the traditional and important commercial cash crop has been in cultivation in India for more than five thousand years. Though synthetic man made fibre has made inroads, cotton deserves the prime position not only in India but also in the world. The northern hemisphere accounts for more than 90% of the total world production.

Indian agriculture is fully depends upon on monsoon. Frequent monsoon failure leaves the farmers high and dry, caught in debt-traps and there are several incidents of suicide in many parts of the country.

STATEMENT OF THE PROBLEM

Cultivation of agricultural goods is more complicated than the production of non-agricultural goods. Cultivation of cotton poses more problems when compared to other agricultural commodities. The cultivation of cotton is generally depending on fertility of soil, climatic situations, high yielding varieties of seeds and rainfall. The farmers are facing many problems in cultivation of cotton. The cotton growers are affected by the problems in cultivation of cotton due to non-availability of labour, high wage rate, high transportation cost, storage cost, poor quality of fertilizers, non-availability of fertile seeds, loss due to pest and inadequate technical know-how. This study is focused to find out answer to the following questions:

1. What are the factors influencing the cultivation of cotton?
2. What are the problems faced by the farmers in the cultivation of cotton?

REVIEW OF LITERATURE

Review of literature is essential for every research study to carry on investigation successfully. Some of the important studies on the related topics have been reviewed here under:

²Ramasundaram P., Shende N.V. and Gajbhiye H.L. conducted a study on “Factors influencing cotton diversion from monopoly procurement”. They suggested that the monopoly cotton procurement scheme of cotton is in operation in Maharashtra since 1972. The cotton producers officially have only one option of selling their produce to the state. But, these three decades of experience has shown that vast interstate movement of cotton is taking place clandestinely.

OBJECTIVES OF THE STUDY

The present study is undertaken with the following specific objectives.

1. To study the factors influencing cultivation of cotton.
2. To identify the problems faced by the cotton growers in cultivation of cotton.

METHODOLOGY

This study is an empirical research based on the survey method. The study is based on primary data. The required primary data have been gathered from the respondents with the help of a well structured and pre-tested by way of interview schedule.

SAMPLING DESIGN

For the purpose of the study a multi-stage stratified random sampling technique was adopted.

Selection of Block

The present study is confined to Erode District in Gobichettipalayam taluk. Gobichettipalayam taluk has three blocks namely Gobi, Nambiyur and Thookanaikanpalayam. Out of these three blocks Gobichettipalayam block was purposively selected.

Selection of Growers

To constitute a sample size of 100 sample farmers were selected by adopting purposive sampling method. The farmers were classified into three different groups namely Small (upto 2 acres), Middle (2 to 5 acres) and Large (above 5 acres).

FRAMEWORK OF ANALYSIS

Based on the data collected from the farmers, a master table was prepared and the data was analyzed with the help of Garrett's ranking technique.

FACTORS INFLUENCING CULTIVATION OF COTTON

The success of farming is judged by the amount of profit gained from it. In the area of study, sample farmers were interviewed to disclose the factors which motivate them to cultivate cotton. Most of the peoples depend upon agriculture. On the way nature of landholding in each farmer can cultivate cotton. There are plenty of factors are considered for influencing cultivation of cotton products. Size of land is foremost important factor to determine the cultivation of cotton and other cropping activities. Especially in cotton cultivation process used for landholdings. The farmers are small, medium, large occupation of land consumption for cotton cultivators.

The sample farmers were asked to assess each factor on its own significance. Each farmer was instructed to indicate the importance of the motivating factor by giving rank I to the most important factor, rank II to the second important factor and so on. In the present study confined to Garrett's ranking technique methods are used to rank the factors.

GARRET'S RANKING TECHNIQUE

Garret's ranking technique has also been applied to rank the factors with the following formula:

$$\text{Percent Position} = 100 \frac{(R_{ij} - 0.5)}{N_j}$$

Where,

R_{ij} = Rank given for the i^{th} factor by the j^{th} respondents

N_j = Number of factors ranked by j^{th} respondents

By referring to the Garret's ranking table the percent position estimated has been converted into scores. Then for each factor, the scores of each individual have been added and then mean value has been considered to be the most important factor.

Table 1 (See Appendix - 1) reveals that the Garret's ranking analysis to find out the factors influencing the cultivation of cotton.

Table 1 indicates that the availability of labour is the most important factor which is influencing the farmers for cultivate the cotton with the highest mean score of 56.58 percent, followed by availability of water with the mean score of 56.44 percent, suitability of soil, with the mean score of 52.81, less risk with the mean score of 51.65, short term with the mean score of 50.06, more return with the mean score of 48.72, need cropping interval with the mean score of 48.18, small landholding with the mean score of 47.77, loan facility with the mean score of 42.25, natural calamities with the mean score of 42.16.

The analysis made by applying the Garrett's ranking technique reveals that the cultivation of cotton in the study area is being influenced by availability of labour followed by other factors.

PROBLEMS IN CULTIVATION OF COTTON

The farmers are facing many problems in cultivation of cotton. To identify the relative importance of the problems in cultivation of cotton, it has been decided to use the Garrett's Ranking Technique, along with the simple ranking technique. The identified problems relating to cultivation of cotton are lack of financial facility, labour shortage, high wage rate, inadequate water supply, severity of diseases, lack of technology, high cost of inputs, climate condition, low quality of fertilizers and pesticides and poor seeds. The sample farmers are called to assign the ranks to identify the most important problems for the cultivation of cotton. The sample farmers were asked to rank the problems in order of priority. Table 2 (See Appendix - 2) reveals that the Garret's ranking analysis to find out the Problems faced by the cultivation of cotton farmers.

Table 2 indicates that the Inadequate water supply is a big problem to all the 100 sample respondents with highest mean score of 52.73, followed by low quality of fertilizers and pesticides with the mean score of 52.33, labour shortage with the mean score of 51.83, high cost of inputs with the mean score of 51.07, high wage rate with the mean score of 50.98, climate condition with the mean score of 49.18, lack of financial facility with the mean score of 48.30, severity of diseases with the mean score of 47.62, lack of technology with the mean score of 43.96, poor seeds with the mean score of 42.60.

FINDINGS

The present study has attempt to highlighting the Factors and problems in cultivation of cotton in Gobichettipalayam taluk. The findings are as follows:

Under the Garrett's ranking method, various factors influenced cotton cultivation such as, availability of labour is found to be most important factor influencing the farmer to cultivate the cotton, followed by availability of water, suitability of soil, less risk, short term, more return, need cropping interval, small landholding, loan facility, natural calamities.

It is concluded that the availability of labour is a most important factor that influence the farmers to cultivate the cotton, because cotton cultivation as well as harvesting is based on labour shortage.

To identify the problem, which is the most important factor, Garrett's ranking analysis has been applied. On the basis of this ranking method, it is found that inadequate water supply in production of cotton is a huge problem, followed by low quality of fertilizers and pesticides, labour shortage, high cost of inputs, high wage rate, climate condition, lack of financial facility, severity of diseases, lack of technology and poor seeds.

It is concluded that inadequate water supply is an important cultivation problem faced by the cotton cultivators, because the cotton is the commercial cash crops, it depends upon the monsoon.

SUGGESTION

On the basis of the above findings, the following suggestion is offered to improve the cultivation and marketing of cotton farmers.

It is found that, the majority of the sample farmers feel about shortage of labour is huge problem facing the cultivation and harvesting of cotton. So, the government should take necessary steps to solve the problem of shortage of labour and protect the farming community.

CONCLUSION

Agriculture being an important sector in the Indian economy, drastic changes is required to develop agriculture in India on par with advanced countries. The government must initiate steps to improve agriculture in India through proper and well-defined strategies, so as to make the agricultural sector more flourishing in the coming future.

FOOTNOTES:

¹ S.S. Nagarajan, "Indian Cotton Scenario : Organic Vs BT Cotton", Kisan World, Vol. 35, No. 3, March 2008, P. 15

² Ramasundaram P., Rajendra Ingle, Sonali Dhote, Phundan Singh, "Cost of Cultivation of Cotton", Financing Agriculture, Vol. 37, No. 1, Jan.-March 2005, P. 22.

BIBLIOGRAPHY

BOOKS

- i Pillai and Bhagavathi R.S.N., “Modern Marketing”, Sultan Chand and Sons Publications, New Delhi, 1982, P. 321.

JOURNALS

- i Dr. Balasubramanian M. and Dr. Eswaran R., “Marketing Practices and Problems of Cotton Cultivators in Virudhunagar District”, Indian Journal of Marketing, Vol. XXXVIII, No. 7, July 2008, P. 27-32
- ii Barik B.B., “Agricultural Marketing – Extension Issues”, Agricultural Marketing, Vol. XLIV, No. 1, April-June 2001, P. 28.
- iii Dhanasekaran T., “Agricultural Marketing Systems”, Indian Journal of Agricultural Marketing, Vol. 16, No. 3, Sep.-Dec. 2002, P. 111
- iv Nagarajan S.S., “BT Cotton Making in Roads into Tamilnadu”, Kisan World, Vol. 34, No. 12, Dec. 2007, P. 13.
- v Raju A.R., Phundan Singh, Rao M.R.K., Blaisu D., Mahale P.S., Varsha Dhosewan, “Financing Agriculture”, Vol. 37, No. 1, Jan.-Mar. 2005, P. 56
- vi Ramasundaram P., Rajendra Ingle, Sonali Dhote, Phundan Singh, “Cost of Cultivation of Cotton”, Financing Agriculture, Vol. 37, No. 1, Jan.-March 2005, P. 22
- vii Ramasundaram P., Vennila S., Phundan Singh, “Emerging Issues in Indian Cotton Cultivation”, Financing Agriculture, Vol. 37, No. 2, April-June 2005, P. 30
- viii Ramasundaram P., Sonali Dhote, Phundan Singh, “Cotton Marketing in India”, Financing Agriculture, Vol. 37, No. 1, Jan.-March 2005, P. 42.