SOCIO ECONOMIC STUDY OF COTTON GROWERS AND CONSTRAINTS IN COTTON PRODUCTION IN BHADRADRI KOTHAGUDEM DISTRICT OF TELANGANA

Micha Hima Bindu [1]*and Mukesh Maurya [2]

Abstract

In Bhadradri Kothagudem District, cotton is the main cash crop that produces better returns than anticipated, although there are several significant factors that hinder the profit. The present study will make an effort to study and identify the issues cotton growers confront. 100 cotton farmers were chosen at random from the Telangana district of Bhadradri kothagudem. Five villages in the Cherla block were chosen at random for the study: Upparigudem, Singhasamudram, Mallaram, Gannavaram, and G. colony. In this study, the socioeconomic circumstances in the chosen study area were analysed in order to examine the problems that cotton growers face. The study discovers that the age, education, and farming experience of the head of home have a substantial impact on enhanced cotton cultivation..To find out the most significant factor which influences in cotton cultivation , Garrett's ranking technique is used to determine the most important factor influencing the response. Garrett's Ranking Technique allows you to convert the orders of problems into numerical scores.. The benefit of this method is that the problems are sorted according to their severity from the respondents' perspective and it concludes that cotton farmers' biggest issue was their ignorance of modern scientific crop practises, and their least significant issue was a lack of timely access to financing.

Keywords*: socio economic status,Marginal farmers,Constraints , Garrett ranking*

Introduction

Cotton is an important principal commercial fiber crop. It is one of the most leading and important cash crops in the Indian economy. It is the number one crop in natural fibre utilised by textile industries and plays a very vital role in international trade. An important characteristic of cotton production is the low average yield which has translated to low

[1] Email : binduhima107@gmail.com

[2] Department of Agricultural Economics, Sam Higginbottom University of Agriculture, Technology and Sciences, Prayagraj, Uttar Pradesh

marginal profitability for small producers. In some cases, farmers' productivity are in the range of 300 to 600 kg/ha, while the yield potential of improved varieties at the research station could reach up to 2500 kg/ha. This has resulted in a high yield gap between the research station and actual farmers plots. Due to low production, low productivity and vulnerability to low prices of cotton, climate, pests and diseases, farmers often resort to alternative cash crops to diversify their businesses and ensure greater safety and security. The consequence of this is the fall of the exchange rate, the lack of raw materials for fabrics and oil mills. Thus, this study was undertaken to suggest suitable measures for bridging the yield gap and improving the income of farmers in the study area.

Cotton has become one of India's leading fibre and cash crops and a significant contributor to India's agricultural and industrial economy. This provides with the cotton textile industry the raw material (cotton fibre). About 40-50 million people are employed in cotton manufacturing and trading and its processing.

Research Methodology

The study was undertaken in the Bhadradri kothagudemDistrict. Cherla block is purposively selected because the block has a more cotton-growing area as compared to other blocks. A complete list of all villages were obtained from sampled blocks office. Therefore, the villages were arranged in ascending order on the basis of cotton cultivation area, and then from a total of 77 villages, 6% were randomly chosen. As a result, 5 sample villages(Upparigudem, Singhasamudram, Mallaram, Gannavaram, and G. colony) were selected randomly for the present study. A random sampling procedure was followed for the selection of the respondents and accordingly, 20 cotton growers from each of the selected villages were selected as respondents and then respondents were classified into three different size farm groups based on the area under cultivation.

1)Marginal farmers – less than 1 ha

2) Small farmers– 1 ha to less than 2ha

3Marginal farmers - 2 ha to 10 ha

Therefore, 100 cotton growers were chosen for the research. The primary decision-maker, or head of the family, was considered a respondent for the study. To study the socio-economic conditions of cotton farmers, Simple statistical tools used for analysing the data include Percentages, Tables, Pie diagrams and Bar diagrams. For measuring constraints Garrett's ranking technique is used to determine the most important factor influencing the response. As

per this method, respondents are allowed to rank their preferences on which they perceived more and the outcomes of such ranking have been converted into score values with the help of the following formula

Garrett's ranking technique

The Garrett ranking technique was used to examine the constraints of cotton production. Each respondent's ranks were converted into per cent position using the following formula:

Per cent position (PP) = $\frac{100\ (R_{ij}-0.5)}{Nj}$

Where

Rij = Rank given for the ith variable by jth respondents

Nj = Number of variables ranked by jth respondents

Period of study:

The study was conducted for the Agricultural year 2021-22.

Study of socio-economic status of selected farmers

1.1 Distribution of respondents according to their area under cultivation

The majority of cotton growing farmers are small farmers (57%), marginal (25%) and then medium (18%) because Bhadrachalam has only recently begun to practise cotton cultivation. The majority of the cotton-growing area is up to 2 hectares, but it is growing every year due to high returns.

Table no :1Distribution of Respondents according to their cultivation area

S.no	Category	Number	Percent
1.	Marginal (>1ha)	25	25%
2.	Small (1 – 2ha)	57	57%
3.	Medium (2 – 10ha)	18	18%

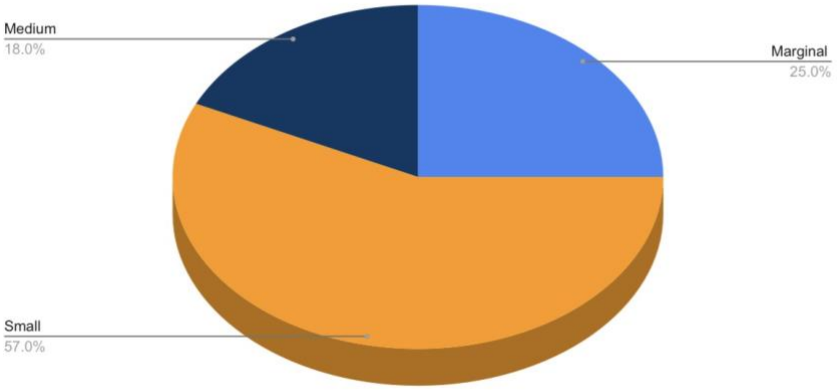

Fig no 1Distribution of farmers based on area under cultivation

1.2 Gender composition of sample households

Since women are typically assigned to work as daily wage workers on other farms, it is evident that many cotton growers are men about 68 per cent and females are about 32 per cent.

Table no : 2 Gender composition of sample households

S.No	Members	Farm Groups			All farms
		Marginal	Small	Medium	
1.	Male	16 (64)	38 (66.7)	14 (77.8)	68
2.	Female	9 (36)	19 (33.3)	4 (22.2)	32
	Total	25	57	18	100

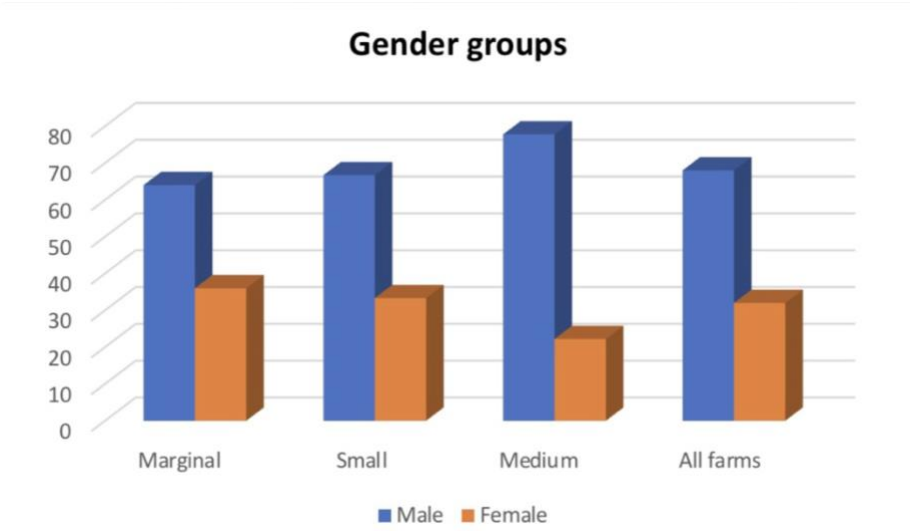

Fig no 2 Gender composition of sample households

1.3 Distribution of Cotton growers according to their age

Table 3 analysis showed that 68 per cent of the sample farmers are from 36-58 years old. Thus, it may be concluded that the middle age generation is interested in cultivating cotton more than the younger and older generations

Table : 3 Distribution of Cotton growers according to their age

S.no	Categories	Marginal	Small	Medium	Total
1.	Young (18 - 35 years)	10 (40)	8 (14.1)	2 (11.1)	20
2.	Middle age (36 - 58 Years)	12 (48)	42 (73.7)	14 (77.8)	68
3.	Old age(59 - 66 Years)	3 (12)	7 (12.2)	2 (11.1)	12
	Total	25	57	18	100

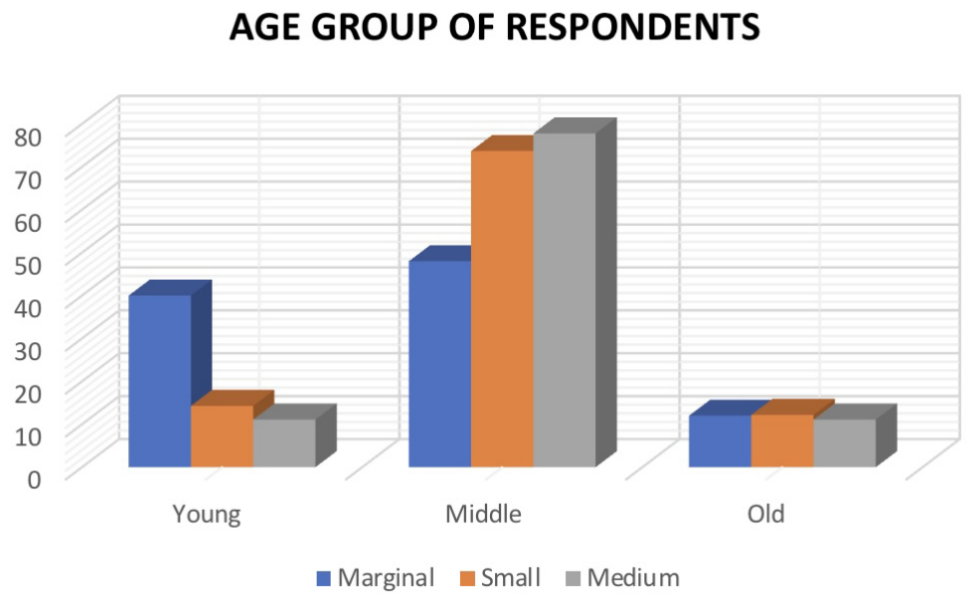

Fig no : 3 Age group of Respondents

1.4 Distribution of Cotton growers according to their level of education

The analysis of education level of sample respondents showed that majority of farmers are illiterate about 48 per cent , up to the middle class were about 35 per cent and 17 per cent in higher secondary. The Majority of small farmers possessed education up to high secondary & above

Table 4 Distribution of Cotton growers according to their level of education

s.no	Categories	Marginal	Small	Medium	Total
1.	Illiterate	11 (44)	27 (47.3)	10 (55.5)	48
2.	Upto middle school	10 (4)	20 (35.1)	5 (27.8)	35
3.	Higher secondary & above	4 (16)	10 (17.6)	3 (16.7)	17
	Total	25	57	18	100

.

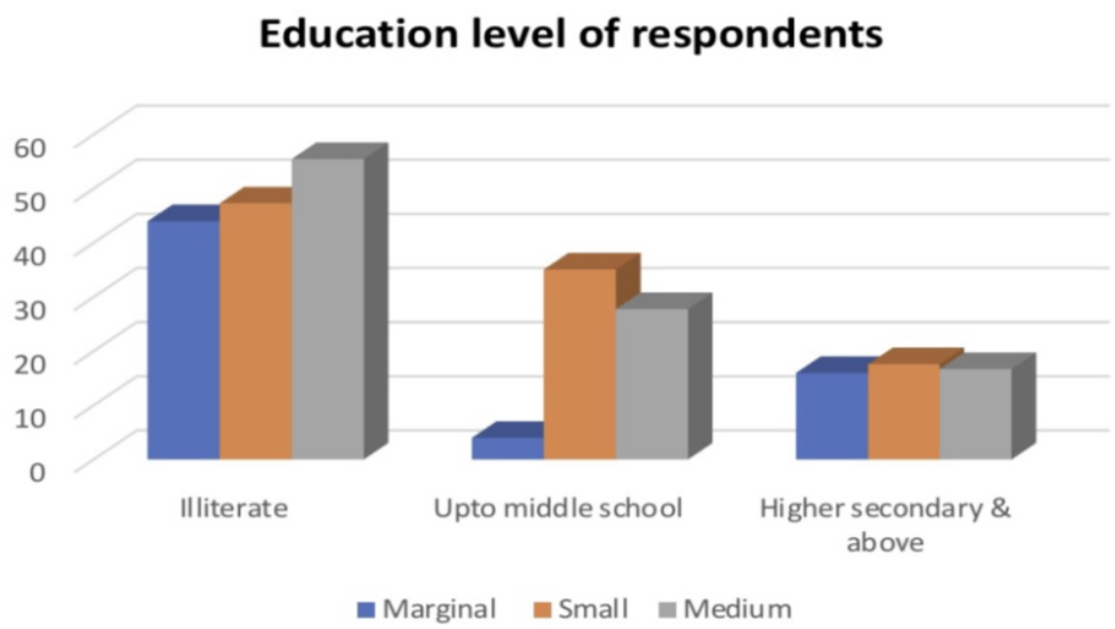

Fig 4 Education level of respondents

1.5 Distribution of Respondents based on the farm experience

Table 5 showed that between 6 and 23 years of farming experience were held by approximately 45 per cent of the respondents. 51% of those interviewed have experience of about 24& above years. 4 per cent of the respondents reported having experience farming for up to 5 years

Table 5 Distribution of Respondents based on the farm experience

S.no	Category	Marginal	Small	Medium	Total
1.	Upto 5 Years	1 (4)	3 (5.2)	-	4
2.	From 6 to 23 Years	18 (72)	20 (35.1)	7 (38.9)	45
3.	24 and above	6 (24)	34 (59.7)	11 (61.1)	51
	Total	25	57	18	100

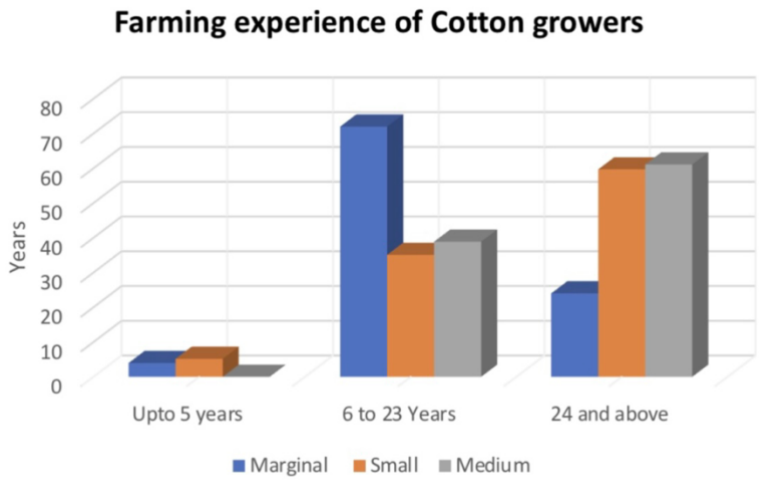

Fig 5 Farming experience of Cotton growers

1.6 Farm distribution according to their Occupation

It has been observed that the majority of cotton farmers (73%) work a daily wage job in addition to farming, which is followed by a 19% farming-only job and an approximate 8% farming-with-self employment job.

Table : 6 Farm distribution according to their Occupation

S.no	Category	Frequency	Percentage
1.	Solely farming	19	19
2.	Farming + Daily wage worker	73	73
3.	Farming + Self employed	8	8
	Total	100	100

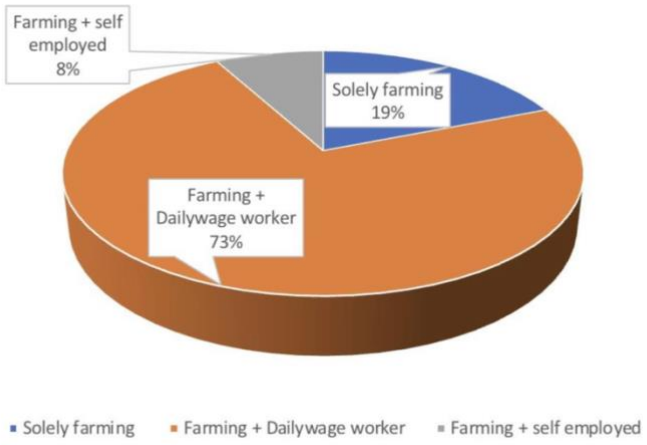

Fig 6 Farm distribution based on their occupation

Application of the Garrett Ranking Technique

An attempt is made to recognise the problems faced by the growers in the cultivation of cotton. The identified problems of growers in the cultivation of cotton are ranked by making use of Garrett's Ranking Technique. The technique was used to rank the preference mentioned by the respondents on different factors and aspects of the cultivation process. It is used to find the most significant factor which had influenced the respondent in their practices. Founded on the Garrett ranking technique, the study had the respondent rank different problems and outcomes based on their impact thereby converting them into score values and ranking with the help of the following formula

Percent position (PP) = $\frac{100\ (R_{ij}-0.5)}{Nj}$

Where

Rij = Rank given for the ith variable by jth respondents

Nj = Number of variable ranked by jth respondents

Findings and Discussion

Table 7 Constraints analysis of Cotton Production

S.NO	Constraints	Percentage	Rank
1	lack of knowledge about improved scientific practice in the crop	59.04	I
2	High price of chemical fertilizers	43.6	IX
3	High labour charges	52.3	III

4	lack of proper storage facility	49.48	VIII
5	Non availability of implements for sowing proper seed rate and depth	49.88	VII
6	Non availability of labour during peak period	51.3	V
7	High initial investment	54.34	II
8	Market places are far away	51.96	IV
9	High cost of transportation	51.08	VI
10	Non availability of finance in time	42.88	X

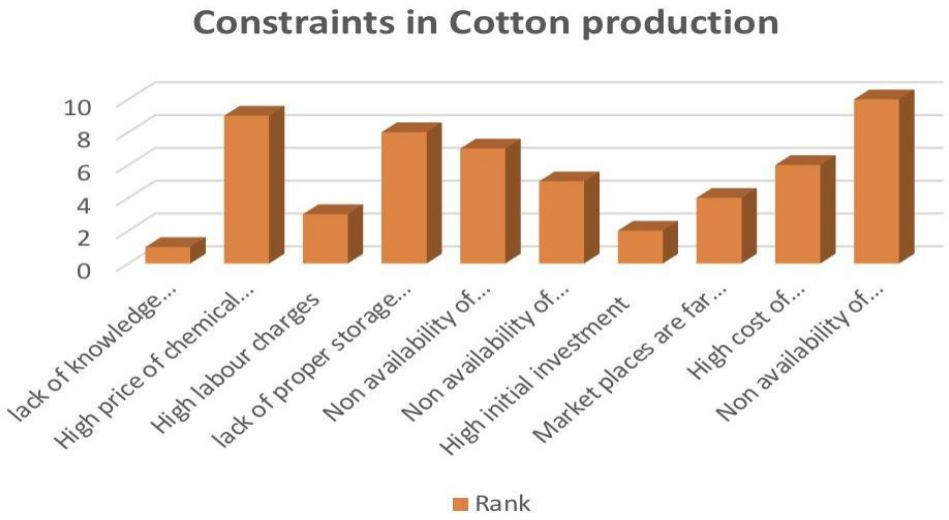

Fig 7 Constraints in cotton production

As seen from the table, and lack of knowledge about improved scientific practice in the crop(54.04%), High price of chemical fertilizers (43.6%), High labour charges(52.3%), lack of proper storage facility(49.48%), Non-availability of implements for sowing proper seed rate and depth(49.88%), Non-availability of labour during peak period(51.3%), High initial investment(54.34%), Market places are far away (51.96%), High cost of transportation (51.08%), Non-availability of finance in time;42.88%)are the major constraints faced by cotton growers in management of cotton cultivation.

Summary

The research identified the socioeconomic characteristics of cotton growers. Having analysed the findings based on the information collected, About 57 percent of cotton growers are small farmers (1-2 hectares), and men are more active in farming than women. Farmers between the ages of 36 and 58 are more enthusiastic about growing cotton. Farmers have a poor level of

education, with only roughly 48% of them being literate. The bulk of farmers have 6 to 23 years of experience. In addition to farming, the farmers' primary employment was to work as a daily wage job.

The cotton farmers' biggest issue was their ignorance of modern scientific crop practises, and their least significant issue was a lack of timely access to financing .Therefore, they advised that the government should provide enough information regarding approved technology and recommended dosage of fertiliser, insecticides, and pesticides, among other things.

Conclusion

The aspects that determine the farmer community's position in Bhadrachalam have been looked into in the current study. The primary source of data is the foundation of the study. The study finds that improved cotton cultivation is significantly influenced by the head of household's age, education, and farming experience . Since majority of Cotton growers are illiterate they are ignorant of modern scientific techniques for the crop and are unaware of the negative effects of pesticide and fertilizer use. Due to their aversion to cropping loss, farmers have spent more money on pesticides to protect their crops. The high expense of cultivation was a direct effect of this. The government should implement an enabling marketing policy through the Product Marketing Corporation, which will act as a clearinghouse for cotton marketing, and the agro-service agencies should set up an appropriate inputs delivery network, conduct adequate and intensive research, and deliver extension services in order to pursue a consistent and systematic campaign for cotton production.

REFERENCES

A. A. Darandale(2011) Constraints Faced by Cotton Growers in Management of Cotton Cultivation,Gujarat *Journal of Extension Education5): 1561-1567*

E. Ravi Goud(2018) Constraints Perceived by the Cotton Growers on the Cotton Cultivation in Kurnool District of Andhra Pradesh, India,*International Journal of Current Microbiology and Applied Science.50-50*

Gaurav Turkhade(2012) Study on problems of cotton farmers in Vidarbha region of Maharashtra,*Hind Agricultural Research and Training Institute.34(4):205-206*

Gohil G.R (2016) Constraints faced by cotton growers in crisis management of cotton cultivation in Gujarat ,*International Journal of Agriculture Sciences.2(2): 28-32.*

Gohil, G.R., Raviya, P.B., Parakhiya, A.M. and Kalsariya, B.N. 2016. Constraints faced by cotton growers in crisis management of cotton cultivation in Gujarat. *International Journal of Agriculture Sciences.8(25): 1500-1502.*

Goud, R.E., Daya, R. and Chowdary, R.K. (2018). Constraints perceived by the cotton growers on the cotton cultivation in Kurnool district of Andhra Pradesh, India. *International Journal of Current Microbiology and Applied Sciences. 7(6): 872-876.*

N, R. and Ahire, P.S. (1999). Constraints in adoption of biological pest control in cotton. *Journal of Soils and Crops. 9(2): 185-187.Gaddi, G.M., Mundinamani. andPatil,AE: 3(2), 103-105*

S.A. (2002). Yield gap constraint and potential cotton production in North Karnataka an economic analysis.*Indian Journal of Agricultural Economics. 57(4): 722-723.*

S.V.Ramesh(2018)Cotton cultivation and marketing - A Study on prospects and problems in Tirupur District ,*International Journal of Enterprise and Innovation Management Studies.Journal of Science, Environment and Technology, 7(2): 496-504.*

W. Ao1 and B.K. Jamir (2020) Application of garret ranking technique in studying the problems of bamboo cultivation: A case study of Mokokchung district.*Nagaland. Indian Journal of Hill Farming December 2020, Volume 33, Issue 2: ISSN: 0970-6429.*

Chitrasena padhy (2021) Constraints in cotton cultivation Reported by Growers and suggestive Measures. *Asian journal of Agricultural Extension,Economics & sociology:AJAEES 67361*