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To assess knowledge level of farmers regarding improved cotton cultivation practices

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Abstract

The study was conducted during the year 2022-23 in Padampur and Suratgarh blocks of Sriganganagar district of Rajasthan to study the knowledge level of cotton growers on improved cotton cultivation practices. A sample size of 120 respondents was selected based on proportionate random sampling procedure. The study revealed that majority of the respondents (68.34%) had medium level of knowledge on improved cotton cultivation practices where, as low level of knowledge was observed on improved cotton cultivation (20.00%). The study analyzed that particularly strong understanding in the areas of season and time of sowing cotton (95.83%), and respondents have less knowledge about inter cropping in cotton crop with 76.665 MPS.

Keywords: Knowledge level, cotton growers, cotton cultivation, improved, practices

Introduction

Cotton is one of the most important commercial crops cultivated in India and accounts for around 25% of the total global cotton production. It plays a major role in sustaining the livelihood of an estimated 6 million cotton farmers and 40-50 million people engaged in related activity such as cotton processing & trade. The Indian Textile Industry consumes a diverse range of fibres and yarns and the ratio of use of cotton to non-cotton fibres in India is around 60:40 whereas it is 30:70 in the rest of the world.

Apart from being the provider of a basic necessity of life i.e. clothing which is next only to food, cotton is also one of the largest contributors to India's net foreign exchange by way of exports in the form of raw cotton, intermediate products such as yarn and fabrics to ultimate finished products in the form of garments, made ups and knitwear. Due to its economic importance in India, it is also termed as "White-Gold".

Cotton cultivation in India has a long and significant history, as the country has been one of the largest producers and exporters of cotton for many years. India's cotton industry plays a crucial role in the country's economy and agricultural sector. The major cotton-producing states in India are Gujarat, Maharashtra, Andhra Pradesh, Telangana, Punjab, Haryana, Rajasthan, and Madhya Pradesh, Karnataka and Tamil Nadu.

The present study was conducted in Sriganganagar district of Rajasthan to understand the Knowledge of farmers about improved cotton production technology. In Rajasthan cotton is mainly grown in Hanumangarh, Sriganganagar, Bhilwara,

Chittorgarh, Rajasmand, Banswara, Bikaner and Nagaur district. Sriganganagar is major cotton growing district of the state.

The climatic conditions of the district are most suitable for cultivation of cotton but the productivity of this crop is far below than desired level. This level can be achieved through timely adoption of improved cotton cultivation technology by the farmers.

Hence, this aspect is a key indicator to assess the knowledge of farmers about improved cotton cultivation practices.

Objective

To assess the knowledge of farmers about improved cotton cultivation practices in Sriganganagar district of Rajasthan.

Methodology

The present study was purposively conducted in Sriganganagar district of Rajasthan state on the basis of maximum production. Sriganganagar district has nine block namely sriganganagar, Padampur, Karanpur, Raisinghnagar, Suratgarh, Anupgarh, Vijaynagar, Sadulshahar and Gharsana out of these two block namely Padampur and Suratgarh have been selected for the study. Five villages from each identify block were selected randomly. Thus total ten villages were selected randomly for the study. Farmers will be universe for the study. Selection of respondents done by random sampling method and 12 respondents were selected from each identify village to make a total sample size of 120 respondents.

They were put in to three category viz. low, medium and

high knowledge level, frequency and percentage were calculated. Individual aspect wise knowledge about various aspects of improved cotton cultivation practices was also worked out. To work out the aspect wise knowledge MPS was calculated and rank was assigned accordingly. Thereafter, data were analyzed and results were interpreted.

Results and Discussion

Extent of knowledge of farmers regarding improved cotton cultivation practices

Knowledge as a body of understood information possessed by an individual is one of the important components of behavioral aspect and plays an important role in adoption of an innovation. On this ground, it is imperative to examine the extent of knowledge of farmers about improved cotton cultivation technology. The results are presented in subsequent tables.

Table 1: Distribution of farmers on the basis of their knowledge level about improved cotton cultivation practices

S. No.	Knowledge level	frequency	percentage
1.	Low (below 9)	24	20.00
2.	Medium (9 to 15)	82	68.34
3.	High (above 15)	14	11.66
Total		120	100.00

Mean = 11.77, S.D. = 3.46

Table 1 reveals that out of 120 respondents, majority of respondents 68.34 per cent fell in medium level of knowledge group whereas, 20.00 per cent cotton growers was observed in the low level of knowledge group and remaining 11.66 per cent respondents possessed high level of knowledge about improved cultivation technology.

Knowledge of respondents regarding improved cotton Production technology

The observed level of knowledge under each cotton practice is presented in the table 2. It reveals that first rank was given to the season and time of sowing with MPS 95.83 followed by weed management with MPS 94.16, yield with MPS 93.33, field preparation with MPS 87.50, harvesting/picking with MPS 86.66, seed rate with MPS 85.83 were ranked second, third, fourth, fifth and sixth respectively. It indicates that cotton growers knew well about season and time of sowing, weed management, yield, and field preparation, harvesting/picking and seed rate.

On other hand, Method of sowing with MPS 85.00 ranked VII, varieties of cotton crop with MPS 82.50 ranked VIII, fertilizer application with MPS 80.83 ranked IX, water management with MPS 80.00 ranked X, plant protection with MPS 78.56 ranked XI, Climate condition with MPS 78.44 ranked XII, seed treatment with MPS 77.50 ranked XIII, inter cropping in cotton with MPS 76.66 ranked XIV respectively.

Table 2: Knowledge of respondents regarding improved cotton cultivation practices

S. No.	Cultivation Practices	MPS	Rank
1.	Field preparation	87.50	IV
2.	Season and Time of sowing cotton	95.83	I
3.	Climate condition	78.44	XII
4.	Seed rate/hectare	85.83	VI
5.	Varieties of cotton crop	82.50	VIII
6.	Seed treatments	77.50	XIII
7.	Method of sowing	85.00	VII
8.	Weed management	94.16	II
9.	Plant protection	78.56	XI
10.	Fertilizer application	80.83	IX
11.	Water management	80.00	X
12.	Inter cropping in cotton	76.66	XIV
13.	Harvesting/Picking	86.66	V
14.	Yield	93.33	III

MPS = Mean percent score

Conclusion

The respondents' knowledge levels regarding improved cotton production technology. The respondents displayed varying levels of knowledge across different cultivation practices related to improved cotton production technology. They showed particularly strong understanding in the areas of season and time of sowing cotton (95.83%), weed management (94.16%), and yield (93.33%). However, there were areas such as seed treatments and intercropping in cotton where their knowledge was relatively lower. Overall, the majority of respondents (68.34%) fall into the "Medium" category, indicating a moderate level of knowledge. However, there are also significant proportions of respondents categorized as "Low" (20%) and "High" (11.66%) based on their knowledge levels about improved cotton cultivation practices.

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