Technological and marketing problems of cotton cultivators in northern India

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ABSTRACT

Cotton production in the cotton growing belts of the country has almost remained a legacy with the farmers for decades together. They prefer to cultivate problems without even taking into consideration the quantum of profit and loss. The average profile of cotton cultivators was not found to be as expected for raising cotton on scientific lines. The extension agencies responsible for the transfer of technology related to cotton production need to direct their educational efforts so as to cover all the cotton cultivators with special emphasis carrying average profile. Adoption level of cotton growers in case of small, marginal and big farmers was positively and significantly associated with the variables, namely, extension agency contact, mass-media exposure, economic motivation and risk orientation. The low prices of cotton due to heavy glut in the market are a problem due to lack of well-organized marketing system. For the same reason the farmers get exploited by the commission agents who try to purchase the produce on low prices during season and also tease the farmers by delaying the payment of the produce.

Introduction

Cotton production in the cotton growing belts of the country has almost remained a legacy with the farmers for decades together. They prefer to cultivate cotton despite many physicals, natural, socio-cultural, technological and marketing problems without even taking into consideration the quantum of profit and loss. The binding factors in direction seems to be more of the social value attached to the cultivation of cotton keeping in view it's global importance as a raw material for manufacturing a variety of clothing and textiles besides a number of other utilities of cotton in professions like medical, veterinary and in all types of households. The other strongly favorable factor in raising cotton crop seems to be that it is cash crop with reasonable profitability.

There are ample historical evidences to establish that the cotton has been quite an important cash crop in India. It was cultivated in Indus valley more than 5000 years back. Interestingly excavations of Mohan Jo-Daro indicated a high degree of art in spinning and weaving of cotton in olden days, which indicates that cotton, has been used as a fabric in India since time immemorial. In Rig Veda, which is the olden scripture of Hindus, there is mention of cotton. In Dharam Shastra also, Manu made a mention of cotton. The available evidences indicate that India has been the center of an important cotton industry as early as 1500

BC. The cultivation of cotton is known to have spread from Indian to Egypt and then to Spain, Italy and so on. Hence, it is well established on the basis of available evidences that India was the original habitat of cotton. Therefore, the study was conducted in Hisar District of Haryana State with the following objectives:

1. To study the profile of cotton cultivators.
2. To find out the technological and marketing problems of cotton cultivators.

Experimental procedure

The study was conducted in Hisar district of Haryana State. Out of 19 districts, Hisar district was purposively selected for the reason that this district was leading both in area and production of cotton as compared to other districts in the State. A multi-stage stratified sampling technique was adopted for the selection of development blocks and villages. A list of development blocks in the Hisar district was prepared out of 16 development blocks, two blocks, namely, Ratia and Fatehabad were purposively selected mainly because of the comparatively higher production of cotton in them besides larger coverage of the area under this crop. For selection of villages, a list of villages in the two development blocks was prepared block wise. From this list, one village from each block was selected randomly. Accordingly two villages, viz. Ahlisadar and Bighar were selected from the two blocks respectively. A random sample of 50 respondents from each of two selected villages was taken. Thus, a total number of 100 respondents constituted the samples for the purpose of the study.

Results and Discussion

With a view to study the profile of respondents, some of the important personality traits which were purported to be related to the problems and prospects of cotton cultivators with special reference to socio-economic status. The distribution of the respondents according to their traits is presented in Table 1.

The average profile of cotton cultivators was not found to be as expected for raising cotton on scientific lines. The majority of them were with in the age group of young to middle (70.00%), belonged to high cast (56.00%), literate (66.00%), depending on agriculture farming as an occupation (91.00%), possessed small land holdings (62.00%), low to medium socio-economic status (79.00%), mass media exposure (80.00%), and extension contacts (88.00%), with large size of family (90.00%) and joint family type (70.00%).

The extension agencies responsible for the transfer of technology related to cotton production need to direct their educational efforts so as to cover all the cotton cultivators with special emphasis on the cotton cultivators carrying average profile keeping in view the importance of social participation, mass media expo-

sure and extension contacts special emphasis should be laid on motivating the farmers to increase their scores on these traits.

Juliana *et al.* (1991) observed that the adoption level of cotton growers in case of small, marginal and big farmers was positively and significantly associated with four variables, namely, extension agency contact, mass media exposure, economic motivation and risk orientation. The author concluded that all the categories of cotton growers were having only medium level of knowledge and adoption behavior in following the recommended practices of cotton.

Cotton is a cash crop and increased production per unit of land with the adoption of recommended cotton production practices would have a direct bearing on the income of farmers from this crop. The attributes like social participation, extension contact and mass media exposure need special attention of the extension agency for promoting scientific farming of cotton. The increase of scores on these variables would promote both knowledge as well as adoption of scientific practices for cotton production. The efforts of extension agency should be on having a live contact with the farmers so that they develop a feeling that extension workers are their beneficiaries, friends, philosophers and guide. Dangi and Intodia (1990) reported that contact farmers under the T & V system who were being visited regularly by extension workers were well equipped with the recommended package of practices of wheat and cotton. Conclusively, it can be safely recommended that close linkages between the farmers and extension workers through the auspices of extension activities do help in promoting their profile more conducive to obtain higher production at their farms. Mathur (1984) maintained that the new varieties and related package of practices although very promising demanded more of farmers education in cultivation practices.

Technological and marketing problems

Technological and marketing problems are described in Table 2. The foremost serious problems were found to be the non-availability of electricity during crop season at the required time. This, no doubt, is a genuine problem needing immediate attention of the Government. Earlier workers also pointed out the lack of power supply and maintained that this resulted in limited adoption of intensive and profitable cropping pattern in irrigated area (Sharma, 1986; Pathak, 1991). In any case, Government should supply adequate power supply sufficient to meet the farmers farming needs. At the same time, the charges of electricity have also to be kept within reasonable limits.

The low prices of cotton due to heavy glut in the market are a problem due to lack of well-organized marketing system. This is so in spite of the fact that marketing of agricultural produce has become an important subject in the scheme of agricultural development. Several agricultural universities even have the Department of Agricultural Marketing. Numerous researchers have observed the problem of marketing. For the same reason the farmers get exploited by the commission agents who try to purchase the produce on low prices during season and also tease the farmers by delaying the payment of the produce.

Likewise lack of buyers during season resulted into monopoly of commission agents to take over the market and exploited the farmers to the maximum extent by paying minimum possible prices of cotton. To mitigate these problems, the governmental authorities should set up an efficient marketing system in which the farmers are not exploited besides getting reasonable prices of cotton. Respondent's perception that the support prices fixed by government were not remunerative also needs due attention of the agricultural prices commission for ensuring support prices, which would be found remunerative by the farmers. Over and above this, the marketing supervisory authorities have to ensure the payment of sale price to farmers in cash soon after sale is affected.

The non-availability of water from canals for irrigation at the appropriate time is in fact very harmful for the crops leading to serious economic losses due to poor production. Lack of irrigation facilities do lead to non-adoption or partial adoption of improved agricultural technology for cotton crop (Sherawat and Poonia, 1992). Discussing the irrigation performance in India, Barik (1996) observed that irrigation had substantially contributed to the growth of agriculture. About 60 percent increase in the agriculture production since independence was directly attributed to irrigation and 80 percent to combined impact of irrigation and modern inputs. Though there was fast growth of agriculture, the performance of irrigation project in the form of agriculture potential created and its utilization was beyond satisfactory. The author pointed out that due to management problems in many projects, the water had not reached at the tail-reach of commissioning. Due to paucity of funds, the government was unable to sanction requisite amount for operation and maintenance works; as a result, the micro networks systems were deteriorating fast. The excessive use of water by the head and middle reach farmers caused severe water logging problems. The collection of irrigation charges from farmers never reached a level of appreciation and the performance of CAD for carrying but physical works at micro level has not been properly appreciated. These facts together narrowed down the irrigation performance, which has caused a lot of concern. Quoting the experiences of Philippines and Indonesia, the author pleaded that something urgent was very much needed in the form of transfer, reform or privatization of irrigation systems in the country so that enough capacity was raised to keep the system in good condition.

It is a well-known fact that high cost of any input would dissuade the farmers from applying the costly ones. High cost of chemicals, herbicides, diesel oil, farm machinery, etc., was also reported by several earlier workers (Singh, 1984; Joshi, 1986; Kothikhane *et al*., 1987; Lal, 1989; Godara, 1990). Majority of the farmers are in the low to medium categories of socio-economic status and find if quite problematic to afford to purchase costly inputs. Under these circumstances, they either ignore the costly inputs or apply only partially which does more harm then good, particularly, in case of insecticides and fungicides chemical fertilizers to be really effective in maximizing yield potential per unit of land need to be applied in recommended doses and at appropriate time. This, in turn, calls of adequate information about fertility status of soil and soil testing procedures and availability of different inputs at the required time on reasonable prices within reach of farmers. Adulteration of inputs needs to be checked with firm hands by law enforcing authorities in the area. All efforts put in on education of farmers about the recommended farming practices get dilute and prove of no consequence, if the inputs are not made available on reasonable prices at the required time. At the time of need, financing agencies should come forward to extend monetary support to farmers with minimum intricacies in the process.

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Table 1. *Profile of the respondents.*

Sr. no.	Trait	Frequency	Percentage of the respondents (N=100)
Age			
	Young (up to 35 years)	43	43.00
	Middle (36 to 45 years)	27	27.00
	Old (above 45 years)	30	30.00
Caste			
	Low (1 to 2 scores)	20	20.00
	Medium (3 to 4 scores)	24	24.00
	High (5 to 6 scores)	56	56.00
Education			
	Illiterate (0 score)	34	34.00
	Up to primary	27	27.00
	Up to matric	32	32.00
	Above matric	07	07.00
Occupation			
	Agriculture	91	91.00
	Agriculture + Business	07	07.00
	Agriculture + Service	02	02.00
Size of landholding			
	Small (up to 10 acres)	62	62.00
	Medium (10 to 21 acres)	25	25.00
	Large (more than 21 acres)	13	13.00
Farm Power			
	No draught animal	04	04.00
	1-2 draught animals	46	46.00
	3-5 draught animals	11	11.00
	Tractor	39	39.00
Family type			
	Nuclear	30	30.00
	Joint	70	70.00
	Family size		
	Up to 5 members	20	20.00
	Above 5 members	80	80.00
Social participation			
	Participating	09	09.00
	Non-participating	91	91.00
Socio-economic status			
	Low (27 and below)	37	37.00
	Medium (28 to 35)	42	42.00
	High (more than 35)	21	21.00
Mass media exposure			
	Low (0-8)	37	37.00
	Medium (9-12)	43	43.00
	High (more than 12)	20	20.00
Extension Contact			
	Low (0-8)	54	54.00
	Medium (9-12)	34	34.00
	High (more than 12)	12	12.00

Table 2. *Technological and marketing problems of cotton cultivators.*

Problems	Raw score	Z score
Non-availability of electricity during crop season at the required time	298	1.8929
Low prices of cotton due to heavy glut in the market	292	1.6893
Non-availability of water from canal for irrigation at appropriate time	280	1.2820
Buyers/commission agents try to purchase the produce on low prices during season	280	1.2820
High cost of chemicals	280	1.2820
Lack of buyers during season resulting into the monopoly of commission agents to take over the market	277	1.1802
Problems of adulteration in chemicals	277	1.1802
Support prices for cotton fixed up by the government is not remunerative	275	1.1123
High cost of herbicides which is difficult to afford	275	1.1123
High wages rate of labor during picking time	271	0.9766
Lack of finance for purchasing farm machinery, i.e. tractor	267	0.8408
Problems of getting sale price in cash soon after sale	266	0.8069