

Study of knowledge level and relationship between socio-economic profile and situational attributes of the cotton growers

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ABSTRACT

Cotton (*Goyssipium* sp.) is the most important cash crop in the Maharashtra state. The study was conducted in Dhule, Shirpur, Shindkheda and Sakari Tahasils of Dhule district. Twelve villages from each tahasil and 10 farmers from each village were selected randomly. In all 120 cotton growers were interviewed with the help of structured interview schedule. The findings of the study revealed that majority of the cotton growers had complete knowledge level of post harvest technology, harvesting of cotton, sowing period, selection of proper soil type, and seed treatment. The findings regarding plant protection measures, harvesting of cotton, seed rate spacing and fertilizers management had partial level of knowledge. The majority of cotton growers had no knowledge about use of recommended varieties of cotton. The knowledge level, education, experience in cotton cultivation, cosmopolitaness of the cotton growers were highly and negatively significant with knowledge level.

INTRODUCTION

Cotton (*Goyssipium* sp.) is an the second most important cash crop in the Maharashtra state. Over the last 3 years, cotton yield in India increased nearly 50 per cent. With the new technologies on cotton growers field, it is possible to increase the average productivity beyond 600 kg. lint/ ha.

Therefore, in order to understand the extent of knowledge level of cotton growers about recommended cotton cultivation practices present, the study was undertaken with the specific objectives : to study the socio-economic profile and situational attributes of the cotton growers, to study the extent of knowledge level possessed by cotton growers about recommended cotton cultivation practices and to study the relationship between selected socio-economic profile and situational attributes of the cotton growers.

METHODS

The study was conducted in Dhule, Shirpur, Shindkheda and Sakari Tahasils of Dhule district. Twelve villages from each tahasils and 10 farmers from each village were selected randomly. In all 120 cotton growers were interviewed with the help of structured interview schedule. The statistical tools like Arithmetic mean, frequency, percentage, standard deviation, coefficient of correlation, and score method were used for analysis.

OBSERVATIONS AND ANALYSIS

It is observed from Table 1 that majority of cotton growers (90.00 per cent) belonged to medium risk orientation category and only 5.00 per cent of cotton growers belonged to high risk

Table 1 : Distribution of cotton growers by their socio-economic profiles and situational attributes (n=120)

Sr. No.	Characteristics	No. of respondents	Percentage
1.	Age		
	Young (up to 34 years)	24	20.00
	Middle (35 to 50 years)	78	65.00
	Old (51 and above)	18	15.00
2.	Education		
	Illiterate	7	05.83
	Primary	12	10.00
	Secondary	92	76.67
	Higher Secondary	6	5.00
	Graduation and above	3	2.50
3.	Size of family		
	Small (up to 4 members)	12	10.00
	Medium (5 to 6 members)	87	72.50
	Large (7 and above)	21	17.50
4.	Land holding		
	Low (up to 2 ha)	39	32.50
	Medium (2.1 to 4 ha)	66	55.00
	Large (4.1 ha and above)	15	12.50
5.	Social participation		
	Low (score upto 2)	48	40.00
	Medium (score up to 3 to 4)	54	45.00
	High (4 and above)	18	15.00
6.	Source of information		
	Low (score upto 13)	15	12.50
	Medium (14 to 21)	93	77.50
	High (22 and above)	12	10.00
7.	Experience in cotton cultivation		
	Low (upto 11 years)	15	12.50
	Medium (12 to 25 years)	84	70.00
	High (26 and above)	21	17.50
8.	Area under cotton		
	Small (upto 1.17 ha)	53	44.67
	Medium (1.18 to 2.74 ha)	46	38.33
	Large (2.75 ha and above)	21	17.50
9.	Annual income		
	Low (upto Rs.56,267/-)	13	10.83
	Medium(Rs.56,268 to 1,53,783)	80	66.67
	High(Rs.1,40,835 and above)	27	22.50
10.	Annual Income from cotton		
	Low (upto Rs.45,690/-)	16	13.33
	Medium(Rs.45,691 to 1,40,834)	78	65.00
	High(Rs.1,40,835 and above)	26	21.67
11.	Risk orientation		
	Low (upto 15)	6	5.00
	Medium(Rs.16 to 23)	108	90.00
	High(Rs.24 and above)	6	5.00
12.	Cosmopolitaness		
	Low (upto 4)	33	27.50
	Medium(5 to 8)	72	60.00
	High(9 and above)	15	12.50
13.	Marketing behaviour		
	Local market	59	49.67
	Kapus ekadhikar	52	43.33
	Cotton corporation	40	33.33

orientation category. Distribution of cotton growers by their source of information indicated that majority of cotton growers *i.e.* 77.50 per cent had undergone medium source of information. Majority of cotton growers (76.67 %) had education up to Secondary level. Majority of cotton growers (72.50 %) belonged to medium size of family. 70.00 of the cotton growers had medium experience in cotton cultivation. Similar findings were reported by Chavan (2005).

Knowledge:

The extent of overall knowledge level possessed by cotton growers about recommended cotton cultivation practices is depicted in Table 2.

It is observed from Table 2 that highest percentage (82.50 per cent) of the cotton growers were having maximum knowledge followed by 7.50 per cent and 10.00 per cent of them in the knowledge level of low and high category. The extent of knowledge level possessed by cotton growers about recommended cotton cultivation practices are depicted in Table 3.

Knowledge level in Table 3 reveals that 100.00 per cent cotton growers were completely aware of post harvest technology of cotton *i.e.* storage and marketing. 82.50 per cent cotton growers had complete knowledge about proper sowing period *i.e.* first shower of monsoon or before 2nd week of July, 75.84 per cent of cotton growers had knowledge about harvesting of cotton *i.e.* picking should be done in morning. Nearly 32.50 per cent of cotton growers had well knowledge about use of recommended hybrid varieties. Near about 51.66 per cent of cotton growers had partial knowledge about seed treatment of cotton. Similar findings were reported by Borase (2003).

Socio-economic profile and situational attributes of the cotton growers

The information regarding relationship between socio-economic profile and situational attributes of the cotton growers is given in Table 4.

It is observed from Table 4 that out of 12 socio-psychological characteristics, age, education, experience of cotton cultivation, area under cotton, social participation, cosmopolitaness, source of information, risk orientation and knowledge level were significantly related with knowledge level of cotton production technology. However, other characteristics namely size of family, land holding, had non-significant relationship with knowledge level of cotton production technology. Similar findings were reported by Hawal (2008).

Conclusions:

The findings of the study revealed that majority of the cotton growers had complete knowledge level of post harvest

Table 2 : Overall knowledge level of cotton growers about recommended cotton cultivation practices (n=120)

Sr. No.	Overall knowledge level	No. of respondents	Percentage
1.	Low (up to 35)	9	7.50
2.	Medium (36 to 43)	99	82.50
3.	High (44 and above)	12	10.00

Mean= 39.2

SD = 8.1525

Table 3 : Practice wise knowledge level of the cotton growers

Sr. No.	Recommended practices	Complete knowledge	Partial knowledge	No knowledge
1.	Selection of proper soil type	82 (68.33)	28 (23.34)	10 (8.33)
2.	Use of recommended varieties	47(39.16)	-	73 (60.84)
	Deshi- Y-1,JLA-794	32(26.66)	-	88 (73.34)
	American- LRA-5166,JLH-168	44 (36.66)	-	76 (63.34)
	Hybrid- H-6,NHH-44, Phule 492 Phule -388	63 (32.50)	-	57 (47.50)
3.	Sowing period			
	a. After 1 st shower of monsoon or before 2 nd week of July	99 (82.50)	21 (17.50)	-
	b. Dry sowing before onset of monsoon	89 (74.16)	31 (25.84)	-
4.	Seed rate and spacing			
	a. Seed per hectare	35 (29.17)	85 (70.83)	-
	b. Spacing D 90x60 cm, H 90x90 cm.	48 (40.00)	72 (60.00)	-
5.	Seed treatment			
	a. If certified seed is used no need of seed treatment.	76 (63.34)	44 (36.66)	-
	b. If farmers uses his own produced cotton seed for sowing then seed treatment of 75 D Thiram 3 g+ 1g carbedanzium	43 (35.84)	62 (51.66)	15 (12.50)
	c. Rubbing the seed with cow dung paste.	82 (68.34)	26 (21.66)	12 (10.00)
	d. Seed treatment with 250 g Azatobactor per 10 kg.	41 (34.16)	47 (39.16)	32 (26.68)
6.	Fertilizer management			
	Hybrid: 100;50;50 NPK kg/ha	33 (27.50)	74(61.67)	13 (10.83)
	Deshi : 80;40;40 NPK kg/ha	37 (30.83)	69 (57.50)	14 (11.67)
7.	Plant protection measures			
	At the time of sowing application of 10 % phorate granules @ 10 kg per ha	28 (23.33)	73 (60.83)	19 (15.84)
	Spraying – Sucking pest spraying of Dimethoate 30 % 400 ml .in 500 lit. of water / ha.	45 (37.50)	60 (50.00)	15 (12.50)
	Bollworms- Spraying of endosulphon 35 E.C. 1000 ml./ha.	34 (28.33)	86 (71.66)	-
8.	Harvesting of cotton	41 (34.16)	79 (65.84)	-
	Harvesting should be completed in 3 to 4 pickings	67 (55.84)	53 (44.16)	-
	Picking should be done in the morning	91 (75.84)	29 (24.16)	-
9.	Post harvest technology			
	Storage	120(100.00)	-	-
	Marketing	120(100.00)	-	-

Table 4 : Correlation coefficient between socio-economic characteristics situational attributes in cotton cultivation

Sr. No.	Independent variables	Correlation coefficient
1.	Age	0.2136 *
2.	Education	- 0.3419 **
3.	Size of family	0.0916 NS
4.	Experience of cotton cultivation	- 0.2625 **
5.	Size of land holding	- 0.1082 NS
6.	Area under cotton	- 0.1792*
7.	Annual income	- 0.1559*
8.	Social participation	- 0.2064*
9.	Cosmopolitaness	- 0.2540*
10.	Source of information	- 0.2028*
11.	Risk orientation	- 0.1802*
12.	Knowledge level	- 0.7857**

* and ** indicate significance of values at P=0.05 and 0.01, respectively

NS= Non-significant

technology, harvesting of cotton, sowing period, selection of proper soil type, and seed treatment. About plant protection measures, harvesting of cotton, seed rate spacing and fertilizers management had partial level of knowledge. The majority of cotton growers had no knowledge about use of recommended varieties of cotton. The knowledge level, education, experience in cotton cultivation, cosmopolitaness of the cotton growers was highly and negatively significant with knowledge level.

REFERENCES

- Borase, P.S. (2003). Constraints faced in adoption of Integrated Pest Management (IPM) technology by hybrid respondent cotton growers in Jalgaon district, M.Sc.(Ag.) Thesis, Mahatma Phule Krishi Vidyapeeth, Rahuri, AHMEDNAGAR, M.S. (India).
- Chavan, S.S. (2005). A study of adoption of recommended package of practices in grape cultivation growers in Sangali district of Maharashtra state. M. Sc. (Ag.) Thesis, Mahatma Phule Krishi Vidyapeeth, Rahuri, AHMEDNAGAR, M.S. (India).
- Howal,A.A. (2008). Technological gap in pomegranate cultivation M.Sc. (Ag.) Thesis, Mahatma Phule Krishi Vidyapeeth, Rahuri, AHMEDNAGAR, M.S. (India).
- Juliana, C.S.B. Annamalai and Somasndaram (1991). Adoption of Integrated Pest Management (IPM) practices. *Indian J. Extn. Edu.*, **27** (3-4):68-72.

