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Constraints faced by the sericulturists in adoption of recommended technologies

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Abstract
The present study was undertaken in a purposively selected Aurangabad District of Marathwada region as the area under Sericulture is increasing since last few years. Two talukas viz., Paithan and Phulumbri were selected and two villages Kekat Jalgaon and Vihamandava from Paithan taluka and Dongargaon and Pimpalgaon from Phulambri taluka were selected purposively for the study. Twenty sericulturists were selected randomly from each of the village making a sample size of eighty respondents for the present study. The respondents were interviewed with the help of structured schedule prepared for the purpose. It is concluded that the respondents were in young age up to 35 years with high education status, marginal land holding up to 1 hectare and medium area under mulberry cultivation 0.31 to 0.40 hectare with three years of experience in cultivation and medium annual income of Rs 41501 to 161000/- with low social participation and medium use of information sources and high extension contact. The most important constraints faced by the sericulturists were Non availability of marketing facilities (100.00%), Lack of skilled labour (72.50%), Non availability of Mulberry seedlings (51.25%), Disease free layings (50.00%), Lack of required finance (42.50), Shortage of trays (40.00%), and Incidence of pest and diseases (37.50%).

Keywords: Constraints, sericulture, sericulturists

Introduction

India has been ranked as the second major and largest raw silk producer in the world as it contributes about 18 per cent to the world total raw silk production. Total raw silk production in India was 28.5 MT, out of which mulberry raw silk production was 20.4 MT (73.55%) during 2015-2016 (Annual report, CSB, 2015-2016).

In India, silk production has improved manifold in recent years as sericulture is adopted by many farmers as a cash crop in agriculture sector. With this, there has been tremendous increase in the silk production in last five decades mainly due to introduction of improved sericulture practices but still there exists a gap between what has been achieved and what could have been achieved.

In spite of all the positive features, mulberry sericulture is still not adopted by the farmers up to the desire level. As a result farmers are getting low returns due to low productivity and poor quality of cocoon for better income and proportionate return of their labour. There is a wide gap in productivity of cocoon due to none or partial adoption of improved technologies. This gap might be due to limitations in the dissemination of improved practices and non- adoption of recommended package of sericulture practices by the sericulturists. To plan a suitable intervention strategy, to bridge this gap, it is necessary to understand constraints faced by the farmers in sericulture production. It was felt that those constraints should be identified.

It is therefore, the present study was conducted to know the constraints faced by sericulturists in sericulture production in Aurangabad district of Marathwada.

Methodology

The present study was undertaken in the purposively selected Aurangabad district of Marathwada region as the area under Sericulture is increasing since last few years. Two talukas namely Paithan and Phulumbri and two villages Kekat Jalgaon and Vihamandava from Paithan taluka and Dongargaon and Pimpalgaon from Phulambri taluka were selected purposively for the study. Twenty sericulturists were selected randomly from each of the village thus a sample size of eighty respondents was selected for the study (Sreenivasa *et al.* 2013) [4].

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Findings
The findings of the study are given below

1. Socio-personal characteristics of the Sericulturists
It is evident from the data in Table 1 that majority (66.25 per cent) of the respondents were young in age up to 35 years, followed by 26.25 per cent of sericulturists were in middle age group of 36 to 55 years and only 7.50 per cent were in the old age group of above 56 years. The data further indicated that 45.00 per cent of respondents were educated up to higher secondary level, followed by 23.75 per cent up to college level. Up to 16.25 per cent respondents were educated up to secondary school and only 8.75 per cent and 6.25 per cent of

respondents were illiterate and were educated up to primary level of education, respectively.

It was observed from Table-1 that 52.50 per cent of the respondents possessed marginal land holding (up to 1 hectare), followed by 28.75 per cent with small (1.1 to 2 hectare) land holding. Only 13.75 per cent and 5.00 per cent of respondents possessed medium and semi-medium land holding, respectively and no respondent had big land holding. The data about area under mulberry revealed that 55.00 per cent of respondents were having medium area under mulberry cultivation *i.e.* 0.31 to 0.4 hectare and 30.00 per cent of the respondents were having big area under mulberry *i.e.* 0.41 hectare and above and only 15.00 per cent of the respondents were having small area under mulberry *i.e.* up to 0.3 hectare.

Further it is observed that 56.25 per cent of respondents were in medium category (experience of 1.1 to 3 years) and 27.50 per cent of the respondents were in high experience category (experience above 3 years) and 16.25 per cent of the respondents were in low experience category (experience up to 1 year).

The data with regards to annual income revealed that more than half of sericulturists (65.00 per cent) were in medium annual income of (Rs. 41501 to 161000), whereas 21.25 per cent and 13.75 per cent of the sericulturists were found in high (above Rs. 161001) and low (up to Rs. 41500) annual income category, respectively.

With regards to social participation majority of the sericulturists were under low social participation (52.50%), followed by 31.25 per cent and 16.25 per cent of the sericulturists having medium and high social participation.

With regards to information sources, majority (58.75%) were under medium use of information sources followed by low 27.50 per cent and 13.75 per cent had used high information sources, respectively.

The data presented in Table- 1 indicates that 48.75 per cent of the sericulturists were having high extension contact followed by medium level (27.50 per cent). Only 23.75 per cent of the respondents were having low extension contact. The results of the study are in consistency with (Choudhary BN 2017) [1]

It is concluded that majority of the sericulturists were in the young age up to 35 years. The probable reason might be that young people tend to be more receptive, enthusiastic, has more working efficiency, high risk bearing capacity and prone to adopt innovations on their farm. Therefore, their more percentage among sericulturists was not surprising. The level of education of the respondents was found to be high. The probable reason may be better awareness about the importance of education and educational facilities available in villages. More than fifty per cent sericulturists possessed marginal land holding *i.e.* less than 1 hectare. The probable reason may be due to fragmentation of land and fifty per cent sericulturists had medium area under mulberry cultivation *i.e.* up to 0.31 to 0.4 hectare. Majority of the sericulturists had medium category experience of 1.1 to 3 years and majority of the sericulturists fell under medium income group *i.e.* in between Rs. 41501 to Rs. 161000 per annum. Thus, based on the data it is concluded that majority of the sericulturists had low social participation with medium information sources, high extension contacts with the extension personnel *i.e.* with sericulture department/ extension personnel might be because of their interest to gather recent information.

Table 1 Distribution of respondents according to socio-personal characteristics

Sr. No	Characteristics	Sericulturists (n = 80)	
I	Age	Frequency	Per cent
1	Young (up to 35)	53	66.25
2	Middle (36 to 55)	21	26.25
3	Old (56 & above)	6	7.50
	II Education		
1	Illiterate	7	8.75
2	Primary	5	6.25
3	Secondary	13	16.25
4	Higher secondary	36	45.00
5	College level	19	23.75
	III Land holding		
1	Marginal (up to 1ha)	42	52.50
2	Small (1.1 to 2 ha)	23	28.75
3	Medium (2.1 to 4 ha)	11	13.75
4	Semi medium (4.1 to 10 ha)	4	5.00
5	Big (above 10 ha)	0	0.00
	IV Area under Mulberry		
1	Small (up to 0.3 ha)	12	15.00
2	Medium (0.31 to 0.4 ha)	44	55.00
3	Big (0.41and above)	24	30.00
	V Experience in sericulture		
1	Low (up to 1 year)	13	16.25
2	Medium (1.1 to 3 years)	45	56.25
3	High (Above 3 years)	22	27.50
	VI Annual Income from sericulture		
1	Low (up to Rs 41500)	11	13.75
2	Medium (Rs 41501 to Rs 161000)	52	65.00
3	High (Rs 161001 and above)	17	21.25
	VII Social participation		
1	Low (up to 3)	42	52.50
2	Medium (4 to 8)	25	31.25
3	High (9 and above)	13	16.25
	VIII Sources of information		
1	Low (up to 8)	22	27.50
2	Medium (9 to 12)	47	58.75
3	High (12 and above)	11	13.75
	IX Extension contact		
1	Low (up to 4)	19	23.75
2	Medium (5 to 8)	22	27.50
3	High (9 and above)	39	48.75

Table 2: Distribution of respondents according to constraints faced by sericulturists sericulture production

Sr. No	Constraints	No	Per cent
1	Non- Availability of disease free layings	40	50.00
2	Lack of required finance	34	42.50
3	Shortage of trays	32	40.00
4	Lack of knowledge about temperature required	9	11.25
5	Incidence of pest and disease	30	37.50
6	Lack of knowledge regarding plant protection chemicals	15	18.75
7	Lack of irrigation facilities	12	15.00
8	Adverse climatic conditions	27	33.75
9	Lack of skilled labor	58	72.50
10	Lack of land for construction of rearing house	14	17.50
11	Non- availability of perfect technical guidance	19	23.75
12	Low cost benefit ratio	22	27.50
13	Uncertainty of remunerative returns	17	21.25
14	Non availability of Mulberry seedlings	41	51.25
15	Non availability of marketing facilities	80	100.00

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