

Original Research Article

Constraints and Suggestions of Sericulture Production in Parbhani District

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ABSTRACT

The present study was conducted to assess constraints and suggestions of sericulture production in Parbhani district. Sericulture is an agro-industry, the end product of which is silk. Silk is fibrous protein of animal organ produced by the silkworm for spinning a cocoon. Sericulture is a labour intensive agro-industry in all its phases, viz. food-plant cultivation, silkworm rearing, silk reeling and other off-farm activities such as twisting, dyeing, weaving and printing. Sericulture industry includes all the agricultural practices of mulberry cultivation silkworm rearing etc. Multistage sampling design was adopted in the selection of district, tehsils, villages and sericulture farmers. Parbhani district was purposively selected on the basis of availability of area under sericulture production. The primary data was collected for sixty growers from the study area. For analyzing the data in the present study the analytical techniques such as tabular analysis and application of frequency distribution and percentage method were adopted. The result showed that the main constraints encountered by the sericulture growers estimated in frequency and percentage form were high price fluctuations of cocoon in market and transportation problems was another major constraints faced by sericulture farmers. The suggestions given by the farmers were market facility should be established near the village and training programmes about use of rearing equipments should be arranged on regular basis.

Keywords

Sericulture, Agro-industry, Socio-economic development, Mulberry, Cocoon production, Output-input ratio, Farmers

Introduction

Word sericulture is derived from the Greek 'Sericos' meaning silk and English 'Culture' meaning rearing. Sericulture is an agro-industry, the end product of which is silk. Silk is fibrous protein of animal organ produced by the silkworm for spinning a cocoon. Silk has natural sheen and inherent affinity for dyes, light weight, soft touch and high in durability. Because of these unique characteristics silk is termed as "Queen of Textiles". India is the only country in the world to produce all the five known commercial silks, viz.1) Mulberry (*Bombyx*

mori) 2) Tasar (*Antheraea paphia*) a) Tropical Tasar b) Oak Tasar 3) Eri (*Philomsomia ricini*) 4) Muga (*Antheraea assama*). India is second largest producer of raw silk in the world next to china. The raw silk production of India was 35261 MT in 2018-19. The raw silk production of Maharashtra was 2538.557 MT in 2018-19 and in Parbhani it was 44.687 MT in 2018-19. India was the largest importer of raw silk and largest consumer of the silk in the world. Sericulture is basically an agro based rural industry which includes both farm and industry.

This facilitates opportunities for millions and meant for its high employment potential, low capital requirement with higher return. By considering all these things of industry with its on-farm and off-farm activities it becomes the point of attraction for all the policy makers and the planners to recognize the industry, as the source of socioeconomic development of economy of India. Cultivation of mulberry plants is called as Moriculture. Mulberry sericulture involves the cultivation of mulberry to produce leaf, rearing of silkworm to convert leaf to cocoon, reeling of the cocoon to obtain silk yarn and weaving to convert yarn to fabrics. Factors which promote sericulture business are like quality of mulberry leaves, its availability especially for cocoon production. Sericulture facilitates the better return as compared to other rural activities. Due to recent developed technological innovations now it is possible to cultivate the varieties of silk where it is difficult to grow.

Mulberry sericulture is mainly practiced in five states namely; Karnataka, Andhra Pradesh, Assam and Bodoland, West Bengal, Jharkhand and Tamil Nadu are major silk producing states in the country. Sericulture includes many small works such as cutting of leaves from plants, providing food materials to silkworm larva, handling of larva etc. and carefully handling is needed for such works because larva is very sensitive and small in size. These works can be properly done by women. Thus ultimately this facilitates great opportunities for the women also.

Materials and Methods

Multistage sampling design was adopted in selection of district, Tehsils, villages and sericulture growers. Parbhani district was purposively selected on the basis of availability of area under Sericulture production. On the basis of area under sericulture production, two tehsils of

Parbhani district was selected namely, Purna and Manwat for the present study. Total sample size was 60 growers. Cross sectional data were collected with the help of well-structured, pretested schedule by personal interview method. The data were collected during the year 2019-2020. Analytical techniques were used to achieve by application of frequency distribution and percentage method.

Results and Discussions

Sericulture growers were facing many problems in production of mulberry leaves and cocoon production. To solve such problems, suggestion of the sample farmers must be considered. The problems and suggestions of growers were arranged in frequency and percentage form and some problems and suggestion were discussed as follows.

Constraints and suggestions of sericulture growers

Different problems and constraints which were faced by the sericulture growers in the study area were analyzed. From the study it was revealed that the sericulture farmers not only facing the constraints in mulberry production but also in cocoon production. On the basis of information provided by the sericulture farmers i.e. suggestions analysis were carried out and these suggestions helps in solving the problems of farmers. The problems and suggestions of sericulture growers were arranged in the form of frequency and percentage and that were discussed as follows.

Constraints faced by sericulture growers

The various constraints which were faced by the sericulture growers estimated in frequency and percentage form in Table 1.

Table.1 Constraints of sericulture growers

Sr. No.	Constraints	Frequency (n = 60)	Per cent	Rank
1.	Lack of local market facilities	44	73.33	V
2.	Transportation problems	54	90	II
3.	Lack of skilled labour	31	51.66	XI
4.	Improper knowledge in the use of disinfectant	34	56.66	X
5.	Lack of proper storage facilities in villages	42	70	VI
6.	Non availability of market information to farmers at village level	39	65	VII
7.	Lack of proper electricity supply in time required for mulberry garden	38	63.33	VIII
8.	High price fluctuations of cocoon in market	57	95	I
9.	Unavailability of good quality leaves of mulberry in time	45	75	IV
10.	Lack of timely supply of disease free egg layings	35	58.33	IX
11.	High rate of silkworm rearing equipments	49	81.66	III

Table.2 Suggestions to overcome constraints faced by sericulture growers

Sr. No.	Suggestions	Frequency (n = 60)	Per cent	Rank
1.	Market facility should be established near the village	52	86.66	I
2.	Equipment required for mulberry cultivation and silkworm rearing should be available on subsidized basis	39	65	V
3.	Government intervention should be required in price fixation of cocoon	43	71.66	III
4.	Government should supply desired quantity of egg masses in time to farmers	42	70	IV
5.	The proper storage facility should be available in village	37	61.66	VI
6.	Proper knowledge about the use of disinfectant should be provided	26	43.33	IX
7.	Training programmes about use of rearing equipments should be arranged on regular basis	50	83.33	II
8.	Government should supply the electricity to sericulture farmers	30	50	VIII
9.	Good quality of mulberry leaves should be available in proper time	31	51.66	VII

The result revealed that lack of market facility which was expressed by 73.33 per cent sericulture growers. The problems regarding transportation were expressed by 90 Per cent sericulture producer. Lack of skilled labour was expressed by 51.66 per cent sericulture farmer.

Improper knowledge in the use of disinfectant this was expressed by 56.66 per cent sericulture farmer. Lack of proper storage facilities in villages this was expressed by 70 per cent sericulture farmer. Non availability of market information to farmers at village level this was expressed by 65 per cent sericulture producer. Lack of proper electricity supply in time required for mulberry garden was expressed by 63.33 per cent sericulture producer. The rates of price fluctuation of cocoon in market estimated were expressed by 95 per cent sericulture grower. Unavailability of good quality leaves of mulberry in time which was expressed by 75 per cent sericulture producer. Lack of timely supply of disease free egg layings this was expressed by 56.66 per cent sericulture growers. High rate of silkworm rearing equipments this was expressed by 81.66 per cent sericulture producer. These problems were faced by the sericulture producers in the cocoon production as well as in mulberry production.

Suggestions to overcome the constraints of sericulture growers

Suggestions to overcome the constraints were estimated in the frequency and percentage form and are presented in Table 2. Result revealed that about 86.66 per cent sericulture farmers were suggested that market facility should be established near the village. About 65 per cent sericulture producers were suggested that desired equipment required for mulberry cultivation

and silkworm rearing should available on low cost and on subsidized basis.

About 71.66 per cent Sericulture producers were suggested that government intervention should be required in case of price fixation of cocoon. About 70 per cent sericulture farmers were suggested that government should supply desired quantity of egg masses in time to farmers.

The proper storage facility should be available in the villages were suggested by 61.66 per cent sericulture farmers. Proper knowledge about the use of disinfectant was suggested by 43.33 per cent sericulture farmers. Training programme about the use of rearing equipments should be arranged on regular basis were suggested by 83.33 per cent of sericulture producers. About 50 per cent sericulture farmers were suggested that government should supply the electricity to sericulture farmers. These suggestions were suggested by the sericulture respondents from the study area.

In conclusion, the sericulture growers were middles aged with high school level. The total land holding possessed about 3.10 ha. The average size of family of the sericulture growers was 6.71. Lack of proper storage facilities in villages which was expressed by 70 per cent sericulture farmer. Non availability of market information to farmers at village level which was expressed by 65 per cent sericulture producer.

References

- Beula Priyadarshini, M. and Kumari, N.V. (2017). A study on the adoption of improved sericulture technologies and success of sericulture in Chittoor and Kadapa districts of Andhra Pradesh, India. *International Journal of Applied Agricultural Research*, 12(1): 43-48

- Dewangan, S.K. (2013). Livelihood opportunities through sericulture a model of Gharghoda tribal block, Raigarh Dist. *American Journal of Environmental Science*, 9(4): 343-347
- Dewangan, S.K., Sahu, K.R., Achari, K.V. and Soni, S. (2011). Socio-Economic empowerment of tribal women through sericulture a study of Lailunga Block of Raigarh District, Chhattisgarh, India. *International Journal of Business and Management*, 6(12): 297-302
- Dewangan, S.K. (2017). Sericulture play key role to employment generation and socio-economic empowerment of tribal women. *International Journal of Advanced Research and Development*, 2(6): 761-768
- Parmar, M. (2014). Analysis of sericulture in Himachal Pradesh: A case study of Kangra district of Himachal Pradesh. *The International Journal of Humanities & Social Studies*, 2(12): 132-140.
- Sharma, M.L. and Yadaw, K.N. (2013). Constraints in adoption of recommended sericulture production technology in Korba district of Chhattisgarh. *Agriculture Update*, 8(3): 357-363.
- Shukla, R., (2011). Constraints in adoption of recommended technologies in mulberry sericulture in South Rajasthan. *Agricultural Science Digest*, 31(3): 235 – 236.
- Todmal, S.B., Khalache, P.G., Gaikwad, J.H. and Jadhav, R.M. (2013). Constraints faced by farmers in adoption of sericulture production technology. *Advance Research Journal of Social Science*, 4(1): 112-114.