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Constraints perceived by farmers in adoption of sericulture technologies in Solapur district of Maharashtra

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Abstract

The study focused on constraints perceived by farmer in adoption of sericulture production technologies in Solapur district of Maharashtra because of non-awareness of improved sericulture technologies as well as poor living conditions of farmer. Sericulture is formed from the Greek word 'sericos', which means silk and the English word 'culture', meaning rearing. Sericulture is an agro-industry that produces silk as a by-product. Silk is a fibrous protein generated by the silkworm in order to spin a cocoon. Silk has a natural sheen and an affinity for colours, as well as being light weight, soft to the touch and long lasting. Silk is known as the "Queen of Textile" because of its distinct features. India has the second position of the world largest producer after China. The main constraints encountered by the sericulture growers estimated in frequency and percentage form were inadequate market information, 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 good quality of mulberry leaves should be available at proper time, market facility should be established near the village, training programmes about use of rearing equipments, handling of silkworm at cocoon spinning time should be arranged on regular basis.

Keywords: Constraints, sericulture farmers, suggestion, adoption, Solapur

Introduction

Sericulture is formed from the Greek word 'sericos', which means silk and the English word 'culture', meaning rearing. Sericulture provides gainful occupation to around 8.7 million persons in rural and semi-urban areas in India. Of these, a sizable number of workers belong to the economically weaker sections of society, including women. China, India, Uzbekistan, Brazil, Japan, Republic of Korea, Thailand, Vietnam, DPR Korea, Iran are major silk producing countries in the world. Cocoon production of Solapur was 1,23,273 quintal in FY 2021-22. Sericulture farmer was more number in Barshi, Madha, Karmala as follow Pandharpur, Sangola, Malshiras and less number in Mohol, South Solapur, North Solapur and Akkalkot. Area under mulberry cultivation is more in Barshi, Madha, Karmala i.e. 148 and 148.25. Less area in Akkalkot, Mohol, South Solapur, North Solapur i.e. 77 and 73 acre. Cocoon production was more in Pandharpur, Sangola i.e 34,060 quintal as follow Malshiras, Mohol, South Solapur, North Solapur and less in Barshi, Madha, Karmala i.e. 11,445 quintal.

Methodology

Multistage sampling design were adopted in selection of district, Tehsils, villages and sericulture growers. In the first stage, Solapur district was purposively selected on the basis of availability of area under Sericulture production. In second stage on the basis of area under sericulture production, two tehsils of Solapur district were be selected namely, Mohol and Pandharpur for the present study. In the third stage from each selected Tehsils, viz. Peertakali, Kurul, Koravali, Shingoli, Jamgaon, Kamati from Mohol tehsil Bhandishegaon, Gopalpur, Bhalwani, Vakhari, Babulgaon, Upari from Pandharpur tehsil were selected on the basis of highest area under sericulture production. In the fourth stage 5 sericulture growers will be randomly selected from each selected village. Thus from 12 villages, 60 growers were selected. The data were analysed with simple frequencies and percentage methods.

Results and Discussions

The various constraints which were faced by the sericulture farmers calculated in frequency distribution and percentage method and presented in Table 1.

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The result observed that, soil pH is not preferable which was expressed by 65 percent sericulture farmer. The problem regarding organic manure were expressed 73.33 percent sericulture grower. Lack of credit facilities and less water available for irrigation that was expressed 51.66 and 55 percent of sericulture producer. The problem about the high wage rate that was 46.66 percent. Machinery cost is expensive

and high cost of cultivation for mulberry crop was expressed by 48.33 and 56.66 percent sericulture farmer respectively, the problems about leaves such as hard leaves, nutrient deficiency of leaves and diseased leaves that was 66.66 percent, 45 percent and 70 percent of sericulture farmer it was very serious problem of each farmer.

Table 1: Constraints of sericulture growers

Sr. No.	Constraints	Frequency (n= 60)	Percent (%)	Rank
1	Soil pH is not preferable	39	65.00	IX
2	Organic manure is not sufficient	44	73.33	IV
3	Lack of credit facilities	31	51.66	XV
4	Less water available for irrigation	33	55.00	XIV
5	High wage rate of labour	28	46.66	XVIII
6	Machinery cost is expensive	29	48.33	XVII
7	Required high cost for mulberry cultivation	34	56.66	XIII
8	No scope for hard leaves	40	66.66	VIII
9	Nutrient deficiency	27	45.00	XIX
10	Diseased leaves	42	70.00	VI
11	Low yield cocoon production in summer season	43	71.66	V
12	Lack of knowledge about improved methods of rearing	48	80.00	III
13	Fluctuation in temperature and humidity leads to disease	36	60.00	XI
14	Regular break for electricity supply	26	43.33	XX
15	High cost for initial stage	30	50.00	XVI
16	Lack of skilled labour for rearing of silkworm	41	68.33	VII
17	Lack of control measure for controlling disease	35	58.33	XII
18	Lack for proper storage facilities	38	63.33	X
19	Inadequate market information and facilities	50	83.33	II
20	More transportation cost for transportation of cocoon to distant market	52	86.66	I

Low yield cocoon production in summer season that was 71.66 percent of sericulture enterpriser. Lack of knowledge about improved method of rearing this was expressed 80 percent with III rank. Fluctuation in temperature and humidity leads to disease which was expressed 60 percent of sericulture farmer. The problems relating to electricity which was expressed 43.33 percent. High cost for initial stage and Lack of skilled labour for rearing of silkworm which was expressed

50 percent and 68.33 percent of sericulture farmer. The problem regarding of disease that was 58.33 percent of sericulture farmer. Lack for proper storage facilities and inadequate market information and facilities which was expressed 63.33 and 83.33 percent of sericulture farmer. The problem regarding transportation were expressed 86.66 percent of sericulture growers.

Table 2: Suggestions to overcome constraints faced by sericulture growers

Sr. No.	Suggestions	Frequency (n= 60)	Percent (%)	Rank
1	Soil pH should be measured	38	63.33	VII
2	Organic manure should provided at cheap cost	44	73.33	V
3	Credit facilities provided	27	45.00	XI
4	Equipment required for mulberry cultivation and silkworm rearing should be based on subsidized basis	36	60.00	VIII
5	Government intervention should be required in price fixation of cocoon	33	55.00	X
6	The proper storage facility should be available in village	42	70.00	VI
7	Market facility should be established near the village	45	75.00	IV
8	Government should supply desired of egg masses in time to farmer	49	81.66	II
9	Proper knowledge about the use disinfectant should be provided	54	57.00	IX
10	Training programmes about the use of rearing equipments should be arranged on regular basis	48	80.00	III
11	Government should supply the electricity to sericulture farmer	26	43.33	XII
12	Good quality of mulberry leaves should be available in proper time	55	91.66	I

Suggestions to overcome the constraints were calculated by the frequency distribution and percentage method and are presented in table no. 2 Result revealed that, about 63.33 percent of sericulture producer were suggested that soil pH should be measured. About 73.33 sericulture producer were suggested that organic manure provided at cheap cost. About 45 percent of sericulture grower were suggested that credit facilities provided. About 60 percent of sericulture farmer

were suggested that desired equipment required for mulberry cultivation and silkworm rearing should be provided on low cost at proper time on subsidized basis. About 55 percent of sericulture farmer were suggested that government intervention should be required in case of price fixation of cocoon.

The proper storage facility should be available in the village were suggested by 70 percent of sericulture producer. Market

facility should be established near the village were suggested by 75 percent of sericulture farmer. About 81.66 percent of sericulture farmer suggested that government should supply desired of egg masses in time to farmer. The proper knowledge about the use disinfectant were suggested by 57 percent sericulture farmer. About 80 percent sericulture grower were suggested training programme about the use of rearing equipment should be arranged on regular basis. Government should supply the electricity to sericulture grower were suggested 43.33 percent. About 91.66 percent of sericulture producer were suggested time good quality of mulberry leaves should be available in proper time.

Conclusions

1. Lack of storage facilities in village was expressed 63.33 percent sericulture farmers.
2. Non availability of market information to farmers at village level which was expressed by 83.33 percent sericulture farmers.
3. Government should supply the electricity to sericulture grower were suggested 43.33 percent.
4. Good quality of mulberry leaves should be available in proper time were suggested 91.66 percent.

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