Farm womens knowledge in sericulture technology

PS Swami, VB Kamble, and MS Anarase

Abstract

The present study was conducted in purposively selected Latur district on the basis of maximum area under sericulture from Marathwada region of Maharashtra state with an objective to analyze Farm Womens Knowledge in Sericulture Technology. From the selected district six tahsils namely Latur, Ahmadpur, Ausa, Renapur, Deoni and Udgir were selected purposively and two villages from each talukas were selected purposively on the basis of maximum area under sericulture. Thus total 120 respondents comprised for the study. Ex-post-facto research design was used for the study. Results revealed that majority (65.83%) of respondents were middle age group, (36.67%) of educated up to secondary school level, almost 89.17 per cent are married, (65.00%) of had nuclear family, (39.17%) of had sericulture + agriculture as a main occupation, (53.33%) of small land holding, (67.05%) of having medium innovativeness, (60.83%) of having medium annual income, (66.67%) of medium mass media exposure, (66.67%) of medium social participation, (67.50%) of medium risk orientation and (77.50%) of medium economic motivation. Whereas majority (74.67%) of the respondents had medium level of knowledge, while 16.67 per cent of them had high level of knowledge and only 09.16 per cent of them had low level of knowledge.

Keywords: Farm women, knowledge, sericulture, technology

Introduction

Sericulture or silk production is the breeding and management of silk worms for the commercial production of silk. Sericulture is an important industry in Japan, China, India, Italy, France and Spain. Silk is the most elegant textile in the world with unparalleled grandeur, natural sheen and inherent affinity for dyes, high absorbance, light weight, soft touch and high durability. On the other hand, it stands for livelihood opportunity for millions owing to high employment oriented, low capital intensive and remunerative nature of its production. The very nature of this industry with its rural based on-farm and off-farm activities and enormous employment generation potential has attracted the attention of the planners and policy makers to recognize the industry among one of the most appropriate avenues for socio-economic development of a largely agrarian economy like India (CSB, 2017) [1]. Therefore present study entitled “Farm Womens Knowledge in Sericulture Technology” was undertaken by following specific objectives.

1. To study the profile of farm women engaged in sericulture technology.
2. To know the knowledge level of sericulture technology by farm women.

Materials and Methods

The present study was conducted mainly with the objective to Farm Womens Knowledge in sericulture technology. For the study, Latur district selected purposively as from Marathwada region. Six tahsils namely Latur, Ahmadpur, Ausa, Renapur, Deoni and Udgir were selected purposively and two villages from each talukas were selected purposively on the basis of maximum area under sericulture. Thus the constituting the total sample size 120 respondents. Ex-post-facto research design was used for the study. The data were collected through personal interview method with the help of pre - tested structured schedule consisting of various items concern with the objective of study. The members were contacted personally at their home during their leisure time. Keeping in the view of the objective of study a structured interview schedule was prepared. The data were carefully examined before tabulation; all the entries in the schedule were checked for its accuracy and completeness. The data were tabulated and subjected to statistical analysis and interpretation.

Results and Discussion

1. To study the profile of farm women engaged in sericulture technology.
### Table 1: Distribution of the respondents according to their personal and socio-economic Characteristics (N=120)

<table>
<thead>
<tr>
<th>S. No.</th>
<th>Category</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td><strong>Age</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1.</td>
<td>Young age (Up to 25 years)</td>
<td>23</td>
<td>19.17</td>
</tr>
<tr>
<td>2.</td>
<td>Middle age (26 to 50 years)</td>
<td>79</td>
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<tr>
<td>3.</td>
<td>Old age (51 years and above)</td>
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<tr>
<td>2.</td>
<td><strong>Education</strong></td>
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</tr>
<tr>
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<td>Illiterate</td>
<td>09</td>
<td>07.50</td>
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<td>2.</td>
<td>Can read and write only</td>
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<tr>
<td>3.</td>
<td>Primary School Level (Up to 4th)</td>
<td>22</td>
<td>18.33</td>
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<td>4.</td>
<td>Secondary School Level (5th to 10th)</td>
<td>44</td>
<td>36.67</td>
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<tr>
<td>5.</td>
<td>Higher School Level (11th to 12th)</td>
<td>20</td>
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</tr>
<tr>
<td>6.</td>
<td>Diploma</td>
<td>17</td>
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<td>7.</td>
<td>Degree</td>
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<td>8.</td>
<td>Post graduate</td>
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<td>9.</td>
<td>Ph. D</td>
<td>00</td>
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<td>3.</td>
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<td>2.</td>
<td>Unmarried</td>
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<td>10.83</td>
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<td>4.</td>
<td><strong>Family type</strong></td>
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</tr>
<tr>
<td>1.</td>
<td>Joint family</td>
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<td>35.00</td>
</tr>
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<td>2.</td>
<td>Nuclear family</td>
<td>78</td>
<td>65.00</td>
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<td>5.</td>
<td><strong>Family occupation</strong></td>
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<td></td>
</tr>
<tr>
<td>1.</td>
<td>Sericulture</td>
<td>34</td>
<td>28.33</td>
</tr>
<tr>
<td>2.</td>
<td>Sericulture + Agriculture</td>
<td>47</td>
<td>39.17</td>
</tr>
<tr>
<td>3.</td>
<td>Sericulture + Business</td>
<td>01</td>
<td>00.83</td>
</tr>
<tr>
<td>4.</td>
<td>Sericulture + Independent profession</td>
<td>03</td>
<td>02.50</td>
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<tr>
<td>5.</td>
<td>Sericulture + Caste occupation</td>
<td>02</td>
<td>01.67</td>
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<tr>
<td>6.</td>
<td>Sericulture + Service</td>
<td>10</td>
<td>08.33</td>
</tr>
<tr>
<td>7.</td>
<td>Labour</td>
<td>23</td>
<td>19.17</td>
</tr>
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<td>6.</td>
<td><strong>Family land holding</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1.</td>
<td>Small (up to 2,00 ha)</td>
<td>64</td>
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<tr>
<td>2.</td>
<td>Semi Medium (2.01 to 4.00 ha)</td>
<td>37</td>
<td>30.83</td>
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<td>3.</td>
<td>Medium (4.01 to 10.00 ha)</td>
<td>14</td>
<td>11.67</td>
</tr>
<tr>
<td>4.</td>
<td>Big (10.1 and above ha)</td>
<td>05</td>
<td>04.17</td>
</tr>
<tr>
<td>7.</td>
<td><strong>Innovativeness</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1.</td>
<td>Low (Up to 10.14)</td>
<td>18</td>
<td>15.00</td>
</tr>
<tr>
<td>2.</td>
<td>Medium (10.15 to 17.40)</td>
<td>81</td>
<td>67.50</td>
</tr>
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<td>3.</td>
<td>High (17.41 to above)</td>
<td>21</td>
<td>17.50</td>
</tr>
<tr>
<td>8.</td>
<td><strong>Annual income</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1.</td>
<td>Low (up to 1.48)</td>
<td>24</td>
<td>20.00</td>
</tr>
<tr>
<td>2.</td>
<td>Medium (1.49 to 7.63)</td>
<td>73</td>
<td>60.83</td>
</tr>
<tr>
<td>3.</td>
<td>High (7.64 and above)</td>
<td>23</td>
<td>19.17</td>
</tr>
<tr>
<td>9.</td>
<td><strong>Mass media exposure</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1.</td>
<td>Low (Up to 3.21)</td>
<td>19</td>
<td>15.83</td>
</tr>
<tr>
<td>2.</td>
<td>Medium (3.22 to 9.39)</td>
<td>80</td>
<td>66.67</td>
</tr>
<tr>
<td>3.</td>
<td>High (9.40 and above)</td>
<td>21</td>
<td>17.50</td>
</tr>
<tr>
<td>10.</td>
<td><strong>Social participation</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1.</td>
<td>Low (Up to 5.23)</td>
<td>11</td>
<td>09.17</td>
</tr>
<tr>
<td>2.</td>
<td>Medium (5.24 to 10.05)</td>
<td>80</td>
<td>66.67</td>
</tr>
<tr>
<td>3.</td>
<td>High (10.06 and above)</td>
<td>29</td>
<td>24.16</td>
</tr>
<tr>
<td>11.</td>
<td><strong>Risk orientation</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1.</td>
<td>Low (Up to 9.86)</td>
<td>15</td>
<td>12.55</td>
</tr>
<tr>
<td>2.</td>
<td>Medium (9.87 to 15.99)</td>
<td>81</td>
<td>67.45</td>
</tr>
<tr>
<td>3.</td>
<td>High (16.00 and above)</td>
<td>24</td>
<td>20.00</td>
</tr>
<tr>
<td>12.</td>
<td><strong>Economic motivation</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1.</td>
<td>Low (Up to 11.74)</td>
<td>14</td>
<td>11.67</td>
</tr>
<tr>
<td>2.</td>
<td>Medium (11.75 to 16.32)</td>
<td>93</td>
<td>77.08</td>
</tr>
<tr>
<td>3.</td>
<td>High (16.33 and above)</td>
<td>13</td>
<td>11.25</td>
</tr>
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</table>

1. **Age**
   The data presented in Table 1 revealed that, majority (65.83%) of the sericulture farm women’s belong to middle age category followed by young age (19.17%) and old age (15.00 %) categories.

2. **Education**
   It was evident from Table 1 that, more than one forth 36.67
per cent respondents were educated up to Secondary school level, followed by 18.33 per cent Primary school level and 16.67 per cent respondents were educated up to Higher Secondary school level. It was further noticed that 14.17 per cent of respondents were Diploma holders, followed by 07.50 per cent respondents were illiterate and 05.00 per cent were educated up to graduation level and 01.66 per cent of them were only able to read and write.

3. Marital status
The information presented in Table 1 indicated that, majority (89.17%) of the respondents was married and (10.83%) of the respondents belonged to unmarried category.

4. Family type
The data presented in Table 1 that, maximum more than half 65.00 per cent respondents were from nuclear type of family and remaining 35.00 per cent were from joint type of family.

5. Occupation
The data noticed in the Table 1 that, more than one fourth 39.17 per cent of the respondents main occupation was exclusively Sericulture + Agriculture category, followed by 28.33 per cent of the respondents were belonged to only Sericulture occupation, 19.17 per cent of the respondents were belonged to Labour category, 08.33 per cent of the respondents were belonged to Sericulture + Service category, 02.50 per cent of the respondents were belonged to Sericulture + Independent profession category, 01.66 per cent of the respondents were belonged to Sericulture + Caste occupation category and 00.83 per cent of the respondents were belonged to Sericulture + Business category.

6. Family land holding
It was observed from the Table 1 that, majority (66.67%) of the respondents were having small (up to 2.00 ha) land holding, followed by 30.83 per cent of the respondents were having semi medium (2.01 to 4.00 ha) land holding, 11.67 per cent of the respondents were having medium (4.01 to 10.00 ha) land holding and 04.17 per cent of the respondents were having large (10.1 and above ha) land holding respectively.

7. Innovativeness
It was observed from Table 1 that, majority (67.50%) of the respondents were having medium innovativeness, whereas (17.50%) and (15.00%) of the respondents were having high and low innovativeness respectively.

8. Annual income
It was cleared from Table 1 that, majority (60.83) per cent of respondents were in medium annual income category, while 20.00 per cent and 19.17 per cent of the respondents were from low and high annual income category respectively.

9. Mass media use
It was observed from Table 1 that, majority (66.67%) of the respondents belong to medium mass media exposure category followed by (17.50%) of the respondents belong to high mass media exposure category and (15.83%) of the respondents belong to low mass media exposure category.

10. Social participation
It was elucidated from Table 1 that, more than half 66.67 per cent of respondents were from medium social participation category, while 24.16 per cent from high social participation category and 09.17 per cent of the respondents were from low social participation category.

11. Risk Orientation
It was manifested from Table 1 that, majority of respondents (67.45%) was having medium risk orientation category, while (20.00%) were having high and (12.55%) were having low risk orientation categories.

12. Economic Motivation
It was observed from Table 1 that, majority more than one third 77.08 per cent of respondents were having medium economic motivation level followed by 11.25 per cent and 11.25 per cent of respondents were having low and high level of economic motivation, respectively.

2. To know the Knowledge level of sericulture technology by farm women.

Table 2: Statement wise distributions of the respondents according to their knowledge towards sericulture technology. (N=120)

<table>
<thead>
<tr>
<th>S. No.</th>
<th>Sericulture technology</th>
<th>Complete knowledge</th>
<th>Partial knowledge</th>
<th>No knowledge</th>
</tr>
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<tbody>
<tr>
<td></td>
<td></td>
<td>Freq</td>
<td>%</td>
<td>Freq</td>
</tr>
<tr>
<td>1</td>
<td>Mulberry varieties</td>
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<td></td>
<td></td>
</tr>
<tr>
<td>i.</td>
<td>Use of S-36 variety</td>
<td>00</td>
<td>00.00</td>
<td>75</td>
</tr>
<tr>
<td>ii.</td>
<td>Use of V-1 variety</td>
<td>120</td>
<td>100</td>
<td>00</td>
</tr>
<tr>
<td>iii.</td>
<td>Use of DD(Viswa) variety</td>
<td>50</td>
<td>41.67</td>
<td>00</td>
</tr>
<tr>
<td>iv.</td>
<td>Use of S-54 variety</td>
<td>20</td>
<td>16.67</td>
<td>25</td>
</tr>
<tr>
<td>2</td>
<td>Mulberry cultivation</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>i.</td>
<td>Use of soil test based fertilizer recommendations</td>
<td>30</td>
<td>25.00</td>
<td>60</td>
</tr>
<tr>
<td>ii.</td>
<td>Use of Bio-fertilizer “Prakruthi”</td>
<td>70</td>
<td>58.53</td>
<td>30</td>
</tr>
<tr>
<td>iii.</td>
<td>Use of Bio-fertilizer with triconatol</td>
<td>85</td>
<td>70.83</td>
<td>35</td>
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<tr>
<td>iv.</td>
<td>Use of “Glycine” (Glyphosate) for weed control</td>
<td>90</td>
<td>75.00</td>
<td>23</td>
</tr>
<tr>
<td>3</td>
<td>Mulberry crop protection</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>i.</td>
<td>Maintenance of weed free plot (IPM)</td>
<td>100</td>
<td>83.33</td>
<td>15</td>
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<tr>
<td>ii.</td>
<td>Cutting and burning of affected parts (IPM)</td>
<td>92</td>
<td>76.67</td>
<td>22</td>
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<tr>
<td>iii.</td>
<td>Use of bionematicide to control root knot</td>
<td>35</td>
<td>29.67</td>
<td>00</td>
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<tr>
<td>iv.</td>
<td>Spraying of 0.2% of DDVP with 0.5% soap solution (IPM)</td>
<td>115</td>
<td>95.83</td>
<td>03</td>
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<tr>
<td>4</td>
<td>Chawki rearing</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>i.</td>
<td>Use of package practices for chawki mulberry gardens</td>
<td>65</td>
<td>54.67</td>
<td>45</td>
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<tr>
<td>ii.</td>
<td>Use of simple black boxing method</td>
<td>115</td>
<td>95.83</td>
<td>05</td>
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<tr>
<td>iii.</td>
<td>Single feeding of entire shoot let for young age silkworm</td>
<td>118</td>
<td>98.33</td>
<td>02</td>
</tr>
</tbody>
</table>
1. Mulberry varieties
It was revealed from Table 2 that, majority (100.00%) of the respondents were complete knowledge about use of V-1 mulberry variety. The practice known by sericulturists respondents were partial knowledge about use of S-36 mulberry variety 62.50 per cent and 58.33 per cent of them were having least knowledge about Use of DD(Viswa)

2. Mulberry cultivation
Table 2 depicted that, almost 50.00 per cent of respondents followed by use of soil test based fertilizer recommendations about had partial knowledge, use of Bio-fertilizer “Prakruthi” about 58.33 per cent had complete knowledge, use of Bio-fertilizer with triconatol about 70.83 per cent of the respondents had complete knowledge, use of “Glycel” (Glyphosate) for weed control about 75.00 per cent of the respondents had complete knowledge.

3. Mulberry crop protection
It was observed from Table 2 that, almost 83.33 per cent of the respondents had complete knowledge about maintenance of weed free plot, 76.67 per cent of the respondents had complete knowledge about cutting and burning of affected parts, majority (85.00%) of the respondents had no knowledge about use of bionematicide to control root knot, majority (95.83%) of the respondents had complete knowledge about spraying of 0.2% of DDVP with 0.5% Soap solution.

4. Chawki rearing
Appraisal of data from Table 2 indicated that, 54.67 per cent of the respondents had complete knowledge about use of package practices for chawki mulberry gardens, 95.83 per cent of the respondents had complete knowledge about use of simple black boxing method, 98.33 per cent of the respondents had complete knowledge about single feeding of entire shoot lot for young age silkworm, 90.00 per cent of the respondents had complete knowledge about use of earthen pots on wet sand for leaf preservation.

5. Late-age silkworm rearing
Data presented in Table 2 as regards with late-age silkworm rearing, majority (100.00%) of the respondents had complete knowledge about use of nylon nets/wire mesh, majority (91.67%) of the respondents had complete knowledge about use of “Vijetha” powder, majority (91.67%) of the respondents had complete knowledge about use of “Lime” and “Vijetha” powders, majority (100.00%) of the respondents had complete knowledge about use of shoot feeding for late-age silkworm.

The data noticed in the Table 3 that, majority (74.67%) of respondents had medium level of knowledge, while (16.67%) of them had high level of knowledge and only (09.16 %) of them had low level of knowledge.

Conclusions
The study indicated that, majority of the women engaged in sericulture were found to of middle age category, secondary school level of education, married, nuclear family, sericulture + agriculture as a main occupation, small land holding category, medium level of innovativeness, annual income, mass media exposure, social participation, risk orientation and economic motivation, respectively. The study revealed that in most of the improved technologies of sericulture, the knowledge level of the respondents was medium to low level.

References

<table>
<thead>
<tr>
<th>S. No.</th>
<th>Category</th>
<th>Frequency</th>
<th>Per cent</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Low (Up to 45.98)</td>
<td>20</td>
<td>16.67</td>
</tr>
<tr>
<td>2.</td>
<td>Medium (45.99 to 75.39)</td>
<td>89</td>
<td>74.67</td>
</tr>
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<td>3.</td>
<td>High (75.40 and above)</td>
<td>11</td>
<td>09.16</td>
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