Studies on Breeding, Health Care and Milking Management Practices Adopted by the Dairy Owners in Shahdol District of MP, India

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Available online at: www.isca.in, www.isca.me

Received 10th May 2014, revised 25th July 2014, accepted 18th September 2014

Abstract

The present study was carried out in Shahdol district of Madhya Pradesh. The information was collected from 400 dairy owners from four blocks, five villages from each block in the district. It was observed that majority (94.25%) of the respondents resorted to natural services. About 65.25% of the dairy farmers used more than two services for the conception of the animals. About half of the owners (56.50%) preferred and consult first with livestock assistant for treatment of sick animals. Only 32.25% of the respondents followed vaccination and deworming practices regularly. They rarely used regular practices of deworming. Knuckling (62.25%) was the main method of milking.

Keywords: Dairy animals, District, Shahdol, milk.

Introduction

India ranks first in the world livestock population. District Shahdol is a tribal belt of Madhya Pradesh. Economy of rural people is significantly contributed by the livestock. The district has the breedable cattle and buffalo population 385574 and 210861, respectively.

Profit of dairy enterprises solely depends on the regular and efficient breeding of animals. Thus, an attempt has been made to study various existing practices followed by the dairy owners in the aspect of breeding, health care and milking management.

Material and Methods

The study was conducted in the Shahdol district of Madhya Pradesh, which was selected purposively. Out of five block of Shahdol district four was selected i.e. Sohagpur, Burhar, Gohparu and Jaisinghnagar block. Five villages from each block and 20 dairy owners from each village were selected randomly. Thus, the entire sample consisted of 400 respondents from selected 20 villages in four blocks of the district.

The data were collected by personal interview techniques through an interview schedule. The existing management practices related to breeding, health care and milking management included in the study. The data were collected and analysed statistically as per procedure.

Results and Discussion

Breeding management practices: The results regarding various breeding practices followed by the dairy farmers are presented in table 1. A persual of the results reveals that more than 90% of the farmers from all the areas can identify the animal in heat. The main symptoms for identification of animal in heat was bellowing for 41%, 45%, 52%, and 56% dairy farmers in Gohparu, Burhar, Jaisinghnagar and Sohagpur areas, respectively, however, 17% farmers of Burhar and Jaisinghnagar, 18% farmers of Sohagpur and 25% farmers of Gohparu areas were identifying the estrus by observing bellowing and discharge from vulva. Some farmers were also getting help from frequent urination for identifying heat in all the three areas which are supported by other. In the present survey, a significant (P<0.05) difference was noticed between blocks and time of heat detection ($X^2=8.25$).

Mainly farmers were checking their animals for heat in the morning, but some famers in all the areas, were also practicing both times inspection. As far as the method of breeding is concerned, Majority of them in all the areas were practicing natural service. Only 5% farmers of Sohagpur and Gohparu, 6% of Jaisinghnagar and 7% farmers of Burhar areas were using artificial insemination (A.I.). This finding is in consonance with other authors. The low incidence might be due to natural services considered more reliable and there is less chances of failure as well as more cost incurred on A.I.

Bulls which are mainly used for breeding were from road side and hence, no breeding record were maintained by the farmers only 10% farmers used own reared bulls and about 7% farmers used bulls for breeding reared by others. More than 60% farmers provide more than two services for setup of pregnancy, about 12% farmers got animal pregnant by one service.
Table-1
Breeding management practices followed by dairy farmers

<table>
<thead>
<tr>
<th>S.No.</th>
<th>Characteristics/Categories</th>
<th>Sohagpur</th>
<th>Burhar</th>
<th>Gohparu</th>
<th>Jaisingh nagar</th>
<th>Average</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Symptoms used for heat detection</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>a. Special sound</td>
<td>56</td>
<td>45</td>
<td>41</td>
<td>52</td>
<td>48.50</td>
</tr>
<tr>
<td></td>
<td>b. Discharge from vulva</td>
<td>10</td>
<td>13</td>
<td>15</td>
<td>15</td>
<td>13.25</td>
</tr>
<tr>
<td></td>
<td>c. Both (a and b)</td>
<td>18</td>
<td>17</td>
<td>25</td>
<td>17</td>
<td>19.25</td>
</tr>
<tr>
<td></td>
<td>d. Frequent urination</td>
<td>06</td>
<td>06</td>
<td>09</td>
<td>06</td>
<td>6.75</td>
</tr>
<tr>
<td>2</td>
<td>Time of heat detection</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>a. Morning</td>
<td>70</td>
<td>64</td>
<td>69</td>
<td>68</td>
<td>67.75</td>
</tr>
<tr>
<td></td>
<td>b. Evening</td>
<td>05</td>
<td>12</td>
<td>09</td>
<td>19</td>
<td>11.25</td>
</tr>
<tr>
<td>X² Value</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>8.25*</td>
</tr>
<tr>
<td>3</td>
<td>Method of breeding</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>a. Natural service</td>
<td>95</td>
<td>93</td>
<td>95</td>
<td>94</td>
<td>94.25</td>
</tr>
<tr>
<td></td>
<td>b. A.I.</td>
<td>05</td>
<td>07</td>
<td>05</td>
<td>06</td>
<td>5.75</td>
</tr>
<tr>
<td>X² Value</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>0.51</td>
</tr>
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<td>4</td>
<td>Bull used for Breeding</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>a. From road</td>
<td>82</td>
<td>86</td>
<td>82</td>
<td>81</td>
<td>82.75</td>
</tr>
<tr>
<td></td>
<td>b. Own reared</td>
<td>11</td>
<td>09</td>
<td>10</td>
<td>12</td>
<td>10.50</td>
</tr>
<tr>
<td></td>
<td>c. Reared by others</td>
<td>07</td>
<td>05</td>
<td>08</td>
<td>07</td>
<td>7.50</td>
</tr>
<tr>
<td>5</td>
<td>No. of services done for pregnancy</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>a. Once</td>
<td>12</td>
<td>15</td>
<td>09</td>
<td>13</td>
<td>12.25</td>
</tr>
<tr>
<td></td>
<td>b. Twice</td>
<td>23</td>
<td>26</td>
<td>22</td>
<td>19</td>
<td>22.50</td>
</tr>
<tr>
<td></td>
<td>c. More than twice</td>
<td>65</td>
<td>59</td>
<td>69</td>
<td>68</td>
<td>65.25</td>
</tr>
<tr>
<td>X² Value</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>3.57</td>
</tr>
</tbody>
</table>

* Significant (P<0.05)

Health care management practices: The results of the health management practices followed by the respondents are presented in table-2. A persual of the results revealed that more than 50% farmers were taking advice from livestock assistant. This might be due to less number of veterinary hospitals and veterinary doctor’s availability. Involvements of local people for treatment of animal were also more. Results revealed that 58% of the farmers were watching their animals daily for any disease symptoms in Jaisinghnagar areas but it was higher 61%, 62%, and 64% in Gohparu, Burhar and Sohagpur areas, respectively. 70% farmers were cleaned house once in a day. The prophylactic measures adopted against contagious diseases by dairy farmer, were hemorrhagic septicemia (32%) in Jaisinghnagar and Sohagpur areas, 29% in Gohparu and 36% in Burhar areas and foot and mouth disease (FMD) it is highest in Jaisinghnagar areas 31% only. This might be due to lack of awareness about animal disease and their prevention.

Deworming was done at regular interval in only 2% cases in all the three blocks except Burhar block where it was 3%. More than 60% farmers from all the areas were not using deworming practices in their animals, however, animals were seldomly dewormed by 21%, 22%, 32%, and 36% farmers in Jaisinghnagar, Gohparu, Burhar, Sohagpur areas, respectively. The less number of farmers practicing deworming might be due to lack of knowledge regarding the harm caused by the parasitic load. Disposal pattern of carcass were not proper, farmers were throwing, their animals at common open place. This was in contrary to author\textsuperscript{4} who found 80% of the farmers in Haryana were disposing carcasses properly.
### Table-2

#### Health care management practices followed by dairy farmers

<table>
<thead>
<tr>
<th>S.No.</th>
<th>Characteristics categories</th>
<th>Sohagpur</th>
<th>Burhar</th>
<th>Gohparu</th>
<th>Jaisinghnagar</th>
<th>Average</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Advice regarding sick animals</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>a.</td>
<td>Veterinary doctor</td>
<td>11</td>
<td>09</td>
<td>08</td>
<td>08</td>
<td>9.00</td>
</tr>
<tr>
<td>b.</td>
<td>Livestock assistant</td>
<td>55</td>
<td>57</td>
<td>56</td>
<td>58</td>
<td>56.50</td>
</tr>
<tr>
<td>c.</td>
<td>Local</td>
<td>22</td>
<td>24</td>
<td>26</td>
<td>25</td>
<td>24.25</td>
</tr>
<tr>
<td>d.</td>
<td>Other</td>
<td>12</td>
<td>10</td>
<td>10</td>
<td>09</td>
<td>10.25</td>
</tr>
<tr>
<td>2.</td>
<td>Watching daily for disease symptoms</td>
<td>64</td>
<td>62</td>
<td>61</td>
<td>58</td>
<td>61.25</td>
</tr>
<tr>
<td>3.</td>
<td>Cleaning of house daily</td>
<td>71</td>
<td>75</td>
<td>72</td>
<td>69</td>
<td>71.75</td>
</tr>
<tr>
<td>4.</td>
<td>Prophylactic measures practiced</td>
<td></td>
<td></td>
<td></td>
<td></td>
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</tr>
<tr>
<td>a.</td>
<td>Vaccination against H.S</td>
<td>32</td>
<td>36</td>
<td>29</td>
<td>32</td>
<td>32.25</td>
</tr>
<tr>
<td>b.</td>
<td>Vaccination against FMD</td>
<td>25</td>
<td>22</td>
<td>29</td>
<td>31</td>
<td>26.75</td>
</tr>
<tr>
<td>5.</td>
<td>Dewoming of animals</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>a.</td>
<td>At regular interval</td>
<td>02</td>
<td>03</td>
<td>02</td>
<td>02</td>
<td>2.25</td>
</tr>
<tr>
<td>b.</td>
<td>Seldom</td>
<td>36</td>
<td>32</td>
<td>22</td>
<td>21</td>
<td>27.75</td>
</tr>
<tr>
<td>c.</td>
<td>No</td>
<td>62</td>
<td>65</td>
<td>76</td>
<td>87</td>
<td>72.25</td>
</tr>
<tr>
<td>6.</td>
<td>Treatment of animals</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>a.</td>
<td>Using Ayurvedic drugs</td>
<td>78</td>
<td>73</td>
<td>79</td>
<td>81</td>
<td>77.75</td>
</tr>
<tr>
<td>b.</td>
<td>Using Allopathic drugs</td>
<td>22</td>
<td>27</td>
<td>21</td>
<td>19</td>
<td>22.25</td>
</tr>
</tbody>
</table>

| X² Value | 10.80*** |

*** Significant (P<0.1)

The trend of using veterinary medicine was mainly ayurvedic/desi in Burhar (73%), Sohagpur (78%) Gohparu (79%) and Jaisinghnagar (81%). In Burhar areas 27% of farmers were using allopathic drugs for the treatment of their animals, whereas it was only 19% in Jaisinghnagar areas. This might be due to lack of allopathic medicine shop, lack of veterinary doctor and high cost of treatment, which was similar to the findings of other researchers.

**Milking management practices:** The data on the various milking practices followed by the dairy farmers are presented in table 3. The results indicated that place of milking were same where farmers were keeping their animals in 89%, 91%, 93% and 94% cases in Burhar, Sohagpur, Gohparu and Jaisinghnagar areas, respectively. In contrary to this other authors reported that 61.1% farmers in Haryana milking their buffaloes at a separate dry place. About 30% farmers from all the areas, were having clean and dry environment during milking, however, farmers from Gohparu, Burhar, Jaisinghnagar and Sohagpur blocks 45%, 46%, 53% and 59% respectively, milked the animals in clean and wet environment. Cleaning of animals before milking was not much in practice. Udder washing was followed by 52%, 53%, 58% and 59% farmers in Jaisinghnagar, Gohparu, Sohagpur and Burhar areas, respectively, which is supported to other research. Calf was allowed to suckle before milking, after milking and both before and after milking 11%, 1%, and 88% in Sohagpur areas, 10%, 3% and 87% in Burhar areas whereas calf did not allowed for after milking in both Gohparu and Jaisinghnagar areas.

They allowed to suckle before and both before and after milking 9% and 91% in Gohparu and 7% and 93% in Jaisinghnagar areas. A large number of farmers were not have weaning practice. This might be due to they rears their calves and not have thought of economics. As far as process of milk let down is concerned more than 90% farmers were using calf suckling which is also reported earlier in Karnal district of Haryana. Some also practicing hand massaging method due to death of calves. Cleanliness of milkers in Sohagpur and Burhar areas were 56% and 55% respectively, however, this was same in both Gohparu and Jaisinghnagar 53%, this might be due to self involvement of farmers in milking, but cleanliness of pail was more than 60% in all the three blocks except Sohagpur areas 53%. Mainly open types of milking pail or bucket were used for milking in all the four areas, under the study. 60% farmers of Sohagpur blocks was milking twice in a day, however in all the three areas there were no significant difference in frequency of milking once or twice in a day.
### Table-3

Milking management practices followed by dairy farmers

<table>
<thead>
<tr>
<th>S.No.</th>
<th>Characteristics categories</th>
<th>No./percent</th>
<th>Sohagpur</th>
<th>Burhar</th>
<th>Gohparu</th>
<th>Jaisinghnagar</th>
<th>Average</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Place of Milking</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>a.</td>
<td>At same place</td>
<td>91</td>
<td>89</td>
<td>93</td>
<td>94</td>
<td>91.75</td>
<td></td>
</tr>
<tr>
<td>b.</td>
<td>At separate place</td>
<td>09</td>
<td>11</td>
<td>07</td>
<td>06</td>
<td>8.25</td>
<td></td>
</tr>
<tr>
<td>X² Value</td>
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<td>1.95</td>
<td></td>
<td></td>
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<td>2.</td>
<td>Milking environment</td>
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<td></td>
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<td></td>
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<td></td>
</tr>
<tr>
<td>a.</td>
<td>Clean and dry</td>
<td>26</td>
<td>31</td>
<td>33</td>
<td>31</td>
<td>30.25</td>
<td></td>
</tr>
<tr>
<td>b.</td>
<td>Clean and wet</td>
<td>59</td>
<td>46</td>
<td>45</td>
<td>53</td>
<td>50.75</td>
<td></td>
</tr>
<tr>
<td>c.</td>
<td>Dirty</td>
<td>15</td>
<td>23</td>
<td>22</td>
<td>16</td>
<td>19.00</td>
<td></td>
</tr>
<tr>
<td>3.</td>
<td>Washing of udder</td>
<td>58</td>
<td>59</td>
<td>53</td>
<td>52</td>
<td>55.50</td>
<td></td>
</tr>
<tr>
<td>4.</td>
<td>Feeding animal at the</td>
<td>45</td>
<td>53</td>
<td>43</td>
<td>48</td>
<td>47.25</td>
<td></td>
</tr>
<tr>
<td></td>
<td>time of milking</td>
<td></td>
<td></td>
<td></td>
<td></td>
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</tr>
<tr>
<td>5.</td>
<td>When the calf is allowed to</td>
<td></td>
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</tr>
<tr>
<td></td>
<td>suckle</td>
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<td></td>
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</tr>
<tr>
<td>a.</td>
<td>Before milking</td>
<td>11</td>
<td>10</td>
<td>09</td>
<td>07</td>
<td>9.25</td>
<td></td>
</tr>
<tr>
<td>b.</td>
<td>After milking</td>
<td>01</td>
<td>03</td>
<td>-</td>
<td>-</td>
<td>1.00</td>
<td></td>
</tr>
<tr>
<td>c.</td>
<td>Both</td>
<td>88</td>
<td>87</td>
<td>91</td>
<td>93</td>
<td>89.75</td>
<td></td>
</tr>
<tr>
<td>X² Value</td>
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</tr>
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<td>Cleanliness of milkers</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>a.</td>
<td>Dirty</td>
<td>13</td>
<td>12</td>
<td>12</td>
<td>10</td>
<td>11.75</td>
<td></td>
</tr>
<tr>
<td>b.</td>
<td>Sometime clean</td>
<td>31</td>
<td>33</td>
<td>35</td>
<td>37</td>
<td>34.00</td>
<td></td>
</tr>
<tr>
<td>c.</td>
<td>Clean</td>
<td>56</td>
<td>55</td>
<td>53</td>
<td>53</td>
<td>54.25</td>
<td></td>
</tr>
<tr>
<td>7.</td>
<td>Type of milking pail used</td>
<td></td>
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<td></td>
<td></td>
<td></td>
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</tr>
<tr>
<td>a.</td>
<td>Completely open</td>
<td>83</td>
<td>88</td>
<td>87</td>
<td>85</td>
<td>85.75</td>
<td></td>
</tr>
<tr>
<td>b.</td>
<td>Somewhat open</td>
<td>17</td>
<td>12</td>
<td>13</td>
<td>15</td>
<td>14.25</td>
<td></td>
</tr>
<tr>
<td>8.</td>
<td>Cleanliness of pail</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>a.</td>
<td>Dirty</td>
<td>13</td>
<td>11</td>
<td>11</td>
<td>13</td>
<td>12.00</td>
<td></td>
</tr>
<tr>
<td>b.</td>
<td>Somewhat clean</td>
<td>34</td>
<td>28</td>
<td>23</td>
<td>25</td>
<td>27.50</td>
<td></td>
</tr>
<tr>
<td>c.</td>
<td>Clean</td>
<td>53</td>
<td>61</td>
<td>66</td>
<td>62</td>
<td>60.50</td>
<td></td>
</tr>
<tr>
<td>9.</td>
<td>Frequency of Milking</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>a.</td>
<td>Once in a day</td>
<td>40</td>
<td>47</td>
<td>49</td>
<td>47</td>
<td>45.75</td>
<td></td>
</tr>
<tr>
<td>b.</td>
<td>Twice in a day</td>
<td>60</td>
<td>53</td>
<td>51</td>
<td>53</td>
<td>54.25</td>
<td></td>
</tr>
<tr>
<td>10.</td>
<td>Interval between milking</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>c.</td>
<td>Equal interval</td>
<td>67</td>
<td>63</td>
<td>62</td>
<td>65</td>
<td>64.25</td>
<td></td>
</tr>
<tr>
<td>d.</td>
<td>Different interval</td>
<td>33</td>
<td>37</td>
<td>38</td>
<td>35</td>
<td>35.75</td>
<td></td>
</tr>
<tr>
<td>11.</td>
<td>Time of milking</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>a.</td>
<td>Morning</td>
<td>24</td>
<td>28</td>
<td>23</td>
<td>20</td>
<td>23.75</td>
<td></td>
</tr>
<tr>
<td>b.</td>
<td>Evening</td>
<td>05</td>
<td>-</td>
<td>07</td>
<td>-</td>
<td>3.00</td>
<td></td>
</tr>
<tr>
<td>c.</td>
<td>Both morning and evening</td>
<td>71</td>
<td>72</td>
<td>70</td>
<td>80</td>
<td>73.25</td>
<td></td>
</tr>
<tr>
<td>X² Value</td>
<td></td>
<td>14.90*</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>12.</td>
<td>Method of milking</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>a.</td>
<td>Knuckling method</td>
<td>63</td>
<td>66</td>
<td>61</td>
<td>59</td>
<td>62.25</td>
<td></td>
</tr>
<tr>
<td>b.</td>
<td>Stripping method</td>
<td>16</td>
<td>18</td>
<td>10</td>
<td>07</td>
<td>12.75</td>
<td></td>
</tr>
<tr>
<td>c.</td>
<td>Full hand method</td>
<td>21</td>
<td>16</td>
<td>29</td>
<td>34</td>
<td>25.00</td>
<td></td>
</tr>
<tr>
<td>X² Value</td>
<td></td>
<td>14.37*</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>13.</td>
<td>Milk drying off in animals</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>a.</td>
<td>Intermittent milking</td>
<td>13</td>
<td>11</td>
<td>19</td>
<td>17</td>
<td>15.00</td>
<td></td>
</tr>
<tr>
<td>b.</td>
<td>Self drying</td>
<td>87</td>
<td>89</td>
<td>81</td>
<td>83</td>
<td>85.00</td>
<td></td>
</tr>
</tbody>
</table>

* Significant (P<0.05).
This might be due to low yield of milk. Interval between milking was almost equal 62\%, 63\%, 65\% and 67\% in farmers of Gohparu, Burhar, Jaisinghnagar and Sohagpur areas respectively. In all the areas, mostly about 70\% farmers both 
morning and evening time were choosen for milking. There 
were significant association (X^2=14.90*) between blocks and 
time of milking.

In the study area, the effect of blocks on method of milking was 
significant (X^2=14.37*). Knuckling method were followed 
about 60\% in all the areas, full hand method which is a healthy 
practice was followed by 16\%, 21\%, 29\% and 34\% in Burhar, 
Sohagpur, Gohparu and Jaisinghnagar, areas respectively. This 
might be due to lack of awareness of full hand milking and 
easiness in practicing knuckling. Stripping was also in practice 
in some cases and it was practiced by about 10\% farmers. This 
finding was in contrary to author in Baran district of Rajasthan 
where no farmers were practicing full hand method of milking^8. 
Thus in this areas farmers were somewhat more aware about 
method of milking,show that 36.1\% farmers were practicing 
full hand milking in Hissar district of Haryana, it means farmers 
from these areas were more aware in milking^9.10. Most of the 
farmers in all the areas were not using any drying off procedure, 
and animals got self dried in 85\% cases. In view of above facts 
there is a need to educate dairy owners about the new 
technology of managerial practices through conducting 
demonstration, trainings or planned extension programmes.

**Conclusion**

It was observed that 95\%, 93\%, 95\% and 94\% of farmers in 
Sohagpur, Burhar, Gohparu and Jaisinghnagar areas were 
practicing natural service for breeding.

Prophylactic vaccination against H.S. were 32\%, 36\%, 29\% and 
32\% and F.M.D. were 25\%, 22\%, 29\% and 31\% followed by 
farmers in Sohagpur, Burhar, Gohparu and Jaisinghnagar areas, 
respectively. Deworming was done seldomly by 36\%, 32\%, 
29\% and 25\% farmers in Sohagpur, Burhar, Gohparu and 
Jaisinghnagar areas, respectively. A large percentage of farmers 
were also not practicing deworming practices. For the treatment 
of animals 78\%, 73\%, 79\% and 81\% farmers were practicing 
desi medicines in Sohagpur, Burhar, Gohparu and Jaisinghnagar 
areas, respectively.

Calf suckling was the major process of let down of milk in all the 
areas. It was found that 63\%, 66\%, 61\% and 59\% farmers 
were using knuckling method, for milking in Sohagpur, Burhar, 
Gohparu and Jaisinghnagar areas, respectively. However, 21\%, 
16\%, 29\% and 34\% of farmers were also using full hand method 
of milking in Sohagpur, Burhar, Gohparu and Jaisinghnagar 
areas, respectively, which is the ideal practice.

**Acknowledgement**

The authors duly acknowledge the MGCGV, Chitrakoot, Satna, 
J.N.K.V.V., Jabalpur, and N.D.V.S.U., Jabalpur for the support 
to the demonstration at farmer fields.

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