

KNOWLEDGE LEVEL OF MEMBERS OF WOMEN DAIRY COOPERATIVE SOCIETIES ABOUT IMPROVED DAIRY PRACTICES IN JAIPUR DAIRY

J.P. Yadav¹, G.S. Bangarva² & J.P. Yadav³

ABSTRACT

The level of knowledge was investigated in 40 women dairy cooperative societies with a sample size of 200 respondents. The respondents had highest knowledge about the time taken by cow/buffalo to expel placenta, daily requirement of dry fodder for milch animal, measures to keep the shed hygienic and type of flooring for shed as breeding, feeding, health care and management practices, respectively. Majority of the respondents had medium level of knowledge in all categories of improved practices i.e. breeding (57.5%), feeding (53.5%), health care (73.5%), management (61.0%) and overall (61.5%).

Key Words: Dairy Cooperative Societies

INTRODUCTION

Knowledge is one of the important component of behaviour and it plays a major role in covert and overt behaviour of human beings. Once knowledge is acquired, it produces changes in the thinking process of an individual which would lead to further changes in the mental aptitude. In India, dairy cooperative were found only after 1912. The Khaira District Cooperative Milk Union Ltd., popularly known as Amul, was the first producer oriented dairy organized with a three tier structure evolved by the National Dairy Development Board (NDDB) and is known as 'Anand Pattern'. Presently, more than 85000 primary milk cooperatives with 9.8 million milk producers and 170 district milk unions are covered under the operation flood programme and they collect 12.8 million litres of milk per day (Koli, 2000). Today, India is the largest producer of milk with a share of 16 per cent of the total production of milk world wide. Milk production has been growing at an average rate of 5 per cent per annum and is estimated to touch 81 million tonnes in 2000-2001 with per capita availability of 216 g/day (Roy, 2002). Readiness to gain knowledge about new practices by the farm women is obviously a mentally preparedness in obtaining knowledge of dairy practices and its evaluation for suitability in farm situation. Keeping this in mind the present investigation was undertaken to assess the level of knowledge of members of women dairy cooperative societies about improved dairy practices.

METHODOLOGY

The present study was conducted in Jaipur dairy which covers two districts i.e. Jaipur and Dausa. Fourty societies were randomly selected for the investigation. Two hundred dairywomen were interviewed personally

with the help of pre-tested interview schedule developed by Sharma (1994). The score on knowledge was expressed in percentage for further analysis. The statistics used were mean, standard deviation and percentage of frequency distribution. The frequency of respondents in three levels of knowledge, viz., low (less than mean - s.d.), medium (mean - s.d. to mean + s.d.) and high (more than mean + s.d.) was worked out.

RESULTS AND DISCUSSION

(A) Knowledge About Breeding Practices—The data presented in Table 1 show that women had highest knowledge about time taken by cow/buffalo to expel placenta with a highest MPS i.e. 79.5, followed by methods of insemination (77.5). This might be due to the fact that women remain more in touch with such type of breeding practices. The third, fourth, fifth and sixth ranks were awarded to the practices interval of heat cycle in cow and buffalo (76.5), improved breed of buffalo for milk production (75.0), bred of cow popular for milk production (72.5) and correct time of insemination in cattle after coming in heat (70.5), respectively. The practices, if the animal does not examine for pregnancy what will be the loss (68.0), age of heifers coming in heat (76.5), measures adopted when cow or buffalo does not come in heat within 60 - 80 days after calving (65.5) and pregnancy diagnosis time in cattle (61.5) were ranked at seventh, eighth, ninth and tenth positions, respectively by the members of women dairy cooperative societies. The XI, XII, XIII, XIV and XV ranks were accorded to the practices, measures adopted if cow/buffalo does not become pregnant after three inseminations (59.5), normal service period of cow and buffalo (58.5), time to bred animal in breeding season (57.5), methods of confirmation whether animal conceived or not (55.5)

1. Ex-Ph. D.Scholar, 2&3 Assoc. Prof., (Extension Education), S.K.N. College of Agriculture, JOBNER

and age of cow/buffalo at first calving (53.0), respectively.

It is also evident from Table 1 that calving interval in cow/buffalo (48.5), time of insemination after calving (48.0) and if the placenta not shedded, when it removed (46.5) were the practices about them the members of women dairy cooperative societies had least knowledge and the ranks were awarded XVI to XVIII. This might be due to the plausible reason that service period is technical part of breeding and their is no technical staff working in women dairy cooperative societies. Likewise, they have less knowledge about time of insemination after calving due to the fact that their more attention is only on milking.

Table 1 Knowledge Level of Members of Women Dairy Cooperative Societies with regards to Improved Breeding Practices N=200

| S.No. | Practices | MPS | Rank |
|-------|--|------|-------|
| 1. | Bred of cow popular for milk production | 72.5 | V |
| 2. | Age of heifers coming in heat | 66.5 | VIII |
| 3. | Normal service period of cow and buffalo | 58.5 | XII |
| 4. | Interval of heat cycle in cow and buffalo | 76.5 | III |
| 5. | Pregnancy diagnosis time in cattle | 61.5 | X |
| 6. | Measures adopted when cow or buffalo does not come in heat within 60-80 days after calving | 65.5 | IX |
| 7. | Correct time for insemination in cattle after coming in heat | 70.5 | VI |
| 8. | Improved breed of buffalo for milk production | 75.0 | IV |
| 9. | Time taken by cow/buffalo to expel placenta | 79.5 | I |
| 10. | Time to bred animal in breeding season | 57.5 | XIII |
| 11. | Measures adopted if cow/buffalo does not become pregnant after three inseminations | 59.5 | XI |
| 12. | If the animal does not examine for pregnancy what will be the loss | 68.0 | VII |
| 13. | Methods of insemination | 77.5 | II |
| 14. | Method of confirmation whether animal conceived or not | 55.5 | XIV |
| 15. | If the placenta not shedded, when it removed | 46.5 | XVIII |
| 16. | Age of cow/buffalo at first calving | 53.0 | XV |
| 17. | Calving interval in cow/buffalo | 48.5 | XVI |
| 18. | Time of insemination after calving | 48.0 | XVII |

It is very clear from the data in Table 2, that 57.50 per cent respondents fell in the medium category of knowledge about improved breeding practices, while 21.50 per cent respondents had high level of knowledge. The 21.00 per cent respondents possessed poor level of knowledge about improved breeding practices i.e. low level of knowledge.

The findings were in line of Kumar *et al.* (2001) Sankhala and Chand (2000).

Table 2 Distribution of Members of Women Dairy Cooperative Societies on the Basis of Their Knowledge about Breeding Practices N=200

| Knowledge level categories | Score range | Frequency | Percentage |
|----------------------------|-----------------|-----------|------------|
| Low | Less than 8.86 | 42 | 21.0 |
| Medium | 8.86 to 13.94 | 115 | 57.5 |
| High | More than 13.94 | 43 | 21.5 |

$X = 11.40, \sigma = 2.54$

(B) Knowledge about feeding practices—The data in Table 3 articulate that members of women dairy cooperative societies had highest knowledge about daily requirement of dry fodder for milch animal with the highest mean per cent score i.e. 73.5 followed by ratio of green fodder and straw for feeding of animals (72.0). This might be due to the reason that these activities are mostly carried out by women members and they are more attentive to milch animals.

Table 3. Knowledge Level of Members of Women Dairy Cooperative Societies with Regards to Improved Feeding Breeding Practices N=200

| S.No. | Practices | MPS | Rank |
|-------|--|------|------|
| 1 | Ratio of green fodder and straw for feeding of animals | 72.0 | II |
| 2 | Essentiality of minerals and salt supplementation | 58.5 | IX |
| 3 | Daily requirement of dry fodder for milch animals | 73.5 | I |
| 4 | Importance of balanced ration for animals | 68.0 | III |
| 5 | Method of fodder conservation | 59.0 | VIII |
| 6 | Concentrate requirement for bovine during advance stage of pregnancy | 61.0 | VII |
| 7 | Feeding of animals after calving | 65.5 | IV |
| 8 | Concentrate requirement for a service bull | 54.5 | X |
| 9 | Concentrate requirement of animals for every kg milk production | 62.5 | V |
| 10 | Type of fodder feeding for different categories of animals | 61.5 | VI |

The third, fourth, fifth, sixth and seventh ranks were awarded by the members of women dairy cooperative societies to the practices, importance of balanced ration for animals (68.0), feeding of animals after calving (65.5), concentrate requirement of animals for every kg milk production (62.5), type fodder feeding for different categories of animals (61.5) and concentrate requirement for bovine during advance stage of pregnancy (61.0), respectively.

The figures in Table 3 show that members of women dairy cooperative societies had low knowledge about the practices, method of fodder conservation (59.0) and essentiality of minerals and salt supplementation (58.5) and ranked at VIII and IX positions, respectively. The

respondents having least knowledge about concentrate requirement for a service bull 54.5) with the last rank i.e. tenth. This might be due to the fact that respondents were not aware about the feeding of concentrate and salt supplementation.

The data in Table 4 incorporates that 53.50 per cent respondents had medium level of knowledge about feeding practices. Low level of knowledge was possessed by 26.50 per cent respondents, while, 20.00 per cent respondents possessed high level of knowledge about improved feeding practices. Similar findings were also reported by Kumar *et al.* (2001) and Sankhal and Chand (2002). Contradictory findings were reported by Rath (1977).

Table 4. Distribution of members of women dairy cooperative societies on the basis of their knowledge about feeding practices N=200

| Knowledge level categories | Score range | Frequency | Percentage |
|----------------------------|----------------|-----------|------------|
| Low | Less than 4.11 | 53 | 26.5 |
| Medium | 4.11 to 8.61 | 107 | 53.5 |
| High | More than 8.61 | 40 | 20.0 |

$X=6.36, \sigma=2.25$

(C) Knowledge About Health Care Practices—It is visualized from the data in Table 5 that the members of women dairy cooperative societies had highest knowledge about the practices, measures to keep the shed hygienic with the highest MPS i.e. 74.5 followed by control of external parasites (72.0) and ranked at I and II positions, respectively. This might be due to the reason that these practices were managed mostly by the women so that they had high knowledge about these. The third, fourth and fifth ranks were given to the practices, measures adopted for a sick animal (69.5), important diseases of cattle and buffalo (64.0) and control of internal parasites (60.5), respectively. The members of women dairy cooperative societies had low knowledge about the practice vaccination season against FMD (57.5). This is because of that most of women in study area were less educated so that they were not aware about the proper time of vaccination.

Data in Table 6 depict that majority of the respondents (73.5 %) had medium level of knowledge about improved health care practices. The low and high levels of knowledge possessed by 17.0 and 9.5 per cent of the respondents about improved health care practices, respectively.

Table 5. Knowledge Level of Members of Women Dairy Cooperative Societies With Regards to Improved Health Care Breeding Practices N=200

| S.No. | Practices | MPS | Rank |
|-------|---|------|------|
| 1. | Measures adopted for a sick animal | 69.5 | III |
| 2. | Control of external parasites | 72.0 | II |
| 3. | Vaccination season against FMD | 57.5 | VI |
| 4. | Measures to keep the shed hygienic | 74.5 | I |
| 5. | Control of internal parasites | 60.5 | V |
| 6. | Important disease of cattle and buffalo | 64.0 | IV |

Table 6. Distribution of Members of Women Dairy Cooperative Societies on The Basis of Their Knowledge about Health Care Practices N=200

| Knowledge level categories | Score range | Frequency | Percentage |
|----------------------------|----------------|-----------|------------|
| Low | Less than 2.83 | 34 | 17.0 |
| Medium | 2.83 to 5.13 | 147 | 73.5 |
| High | More than 5.13 | 19 | 9.5 |

$X=3.98, \sigma=1.15$

The results were in close conformity with the results of Kumar *et al.* (2001) and contradict with result of Sankhala and Chand (2002).

Knowledge about management practices

Table 7. Knowledge Level of Members of Women Dairy Cooperative Societies With Regards To Improved Management Practices N=200

| S.No. | Practices | MPS | Rank |
|-------|-------------------------------------|------|------|
| 1. | Time of colostrum feeding | 59.5 | II |
| 2. | Importance of vaccination in calves | 46.5 | V |
| 3. | Housing system used | 42.0 | VI |
| 4. | Duration of dry period | 49.5 | IV |
| 5. | Appropriate method of milking | 56.5 | III |
| 6. | Age of dehorning | 40.0 | VII |
| 7. | Type of flooring for shed | 61.0 | I |

The data in Table 7 depict that the members of women dairy cooperative societies had highest knowledge about type of flooring for shed with the highest mean per cent score i.e., 61.0. The second, third, fourth and fifth ranks were awarded to the practices, time of colostrum feeding (59.5), appropriate method of milking (56.5), duration of dry period (49.5) and importance of vaccination in calves (46.5), respectively by the members of women dairy cooperative societies.

The sixth rank was given to the practice, housing system used (42.0) and the least rank was awarded to the practice, age of dehorning (40.0). This might be due to the fact that poor knowledge of respondents in these aspects (vaccination and dehorning) could be attributed to lack of these facilities at village level.

Table 8. Distribution of Members of Women Dairy Cooperative Societies on the basis of their Knowledge Level about Improved Management Practices N=200

| Knowledge level categories | Score range | Frequency | Percentage |
|----------------------------|-----------------|-----------|------------|
| Low | Less than 20.09 | 36 | 18.0 |
| Medium | 20.09 to 30.47 | 122 | 61.0 |
| High | More than 30.47 | 42 | 21.0 |

X= 3.55, σ=1.16

It is evident from Table 8 that 61.0 and 21.0 per cent of the respondents had medium and high level of knowledge regarding improved management practices. Out of the total 200 respondents only 18.0 per cent possessed low level of knowledge about improved management practices. The findings were in accordance with the findings of Kumar *et. al.* (2001) and Sankhala and Chand (2002) and in contrary with the findings of Rath (1977).

(E) Knowledge Level About Overall Improved Practices—It is evident from the Table 9 that the members having the highest knowledge about health care practices

Table 9. Relative Position of Different Knowledge Practices N=200

| S. No. | Practices | Number of statements | Total score | MPS | Rank |
|--------|-------------|----------------------|-------------|-------|------|
| 1. | Breeding | 18 | 2280 | 63.33 | III |
| 2. | Feeding | 10 | 1272 | 63.60 | II |
| 3. | Health care | 6 | 796 | 66.33 | I |
| 4. | Management | 7 | 710 | 50.71 | IV |

with highest mean per cent score (66.63) followed by feeding practices (63.60). The third and fourth ranks were given to breeding practices (63.33) and management

practices (50.71). This might be due to the fact that the respondents were in more touch with the health care and feeding practices. But they are unaware about the improved management practices.

Table 10. Distribution of Members of Women Dairy Cooperative Societies on The Basis of Their Overall Knowledge Level About Improved Dairy Practices N=200

| Knowledge level categories | Score range | Frequency | Percentage |
|----------------------------|-----------------|-----------|------------|
| Low | Less than 20.09 | 43 | 21.5 |
| Medium | 20.09 to 30.47 | 123 | 61.5 |
| High | More than 30.47 | 34 | 17.0 |

X= 25.28, σ=5.19

The data in Table 10 articulates that 61.5 per cent of the total milk producer members were found to be in medium level and 21.5 per cent respondents had low knowledge level about improved dairy practices. Out of the total respondents only 17.0 per cent of the respondents possessed high level of knowledge about improved dairy practices.

CONCLUSION

It can be concluded that the respondents had highest knowledge about the time taken by cow/buffalo to expel placenta, daily requirement of dry fodder for milch animal, measures to keep the shed hygienic and type of flooring for shed as breeding, feeding, health care and management practices. Further, the majority of the respondents had medium level of knowledge in all categories of improved practices i.e. breeding, feeding, health care and management.

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