Technological Needs of Farm Women in Dairy Farming: A Case of Udaipur District, Rajasthan

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ABSTRACT

This study was carried out in three randomly selected villages from three Panchayat Samities of Udaipur district. From each of the selected villages, a total of twenty farm households having milch cattle were selected randomly. One woman member of the family was interviewed for the study, thus making the total sample size as 60. A well-structured interview schedule was used along with focused group discussion for collecting the information. The study revealed that balanced diet, health care and sanitation, care of pregnant animals and new born calf and correct procedure of milking as the most important areas of technologies compared to the others and 73.2 per cent of the respondents adopted the advice of doctor's as per the concern of health and sanitation practices. Caste and family income had shown negatively significant relationship at 0.05 per cent level with technological needs in dairying. It implies that higher the caste and family income lower is the degree of technological needs of the respondents in dairy. On the other hand farm experience and participation in animal husbandry had a positively significant relationship at .05% level.

Key words: *Technological need; Awareness; Dairy farming; Rural women;*

India is the world's largest milk producer, accounting for more than 13 per cent of worlds total milk production. It is the world's largest consumer of dairy products, consuming almost 100 per cent of its own milk production. India's livestock census (*Khode, et.al. 2009*) denotes its first rank in bovine population with 209.489 million cattle and 91.784 million buffalo, contributing 19 per cent of the world. At the household level dairying plays an important role in improving the economic condition of 70 million farm families *(Kumar, et.al. 2009)*.

In India, women's involvement in livestock management is a longstanding tradition and dairy farming has been an integral part of homestead farming system. Rural women, who constitute nearly 77 per cent of the total female population of the country, play an important role in agriculture and animal husbandry besides the household responsibilities. *DAHD (2006)* reported that the involvement and participation of rural women were more in animal husbandry than in agriculture. It is true that a nucleus of dairy unit more or less exists as a traditional component in every rural household as a source of draught power or nutritional substance for the family, or a secondary source of income *(Vinayagamoorthy, 2007)*.

Although much of the work related to livestock farming is carried out by women, the areas in which they need training the most are not given due consideration while designing training programmes. Hence the studies on accessing the training needs of farm women engaged in dairy farming are of paramount importance to the extension agencies involved in rural development. So, the study has been undertaken with an objective to understand the training needs of farm women engaged in dairy farming. Keeping in view the significant contributions made by women to the dairy sector, the present study was undertaken with the following objectives.

i. To study the awareness of women about the technologies related to dairying.
ii. To find out the technological needs of women in dairying and find out correlation between the socio-personal factors and technological needs of women in dairying.

METHODOLOGY

The study was conducted in three randomly selected villages from three different panchayat samities under Udaipur district of Rajasthan. From each of the selected villages a total of twenty farm households having milch cattle were selected randomly. One woman member of the family was interviewed for the study thus making the total sample sixty. A well-structured interview schedule was used along with focused group discussion for collecting the information. To find out the awareness about dairy technologies, the practices of the respondents were compared with the package of practices recommended for dairy. If the practice of the respondents was matching or at least close to the recommended practice it was considered as 'awareness' otherwise as 'no awareness'. The data were analyzed using percentages, for assessing the technological needs of the respondents in dairy, rank order method was followed by working out the mean scores for each of the item under package of practices and find out the relation between the socio-personal factors and technological of the respondents in dairying, simple correlation coefficient was worked out.

RESULTS AND DISCUSSION

As per Table 1, mostly *Jersey* and *Murrah* breeds were reared by the respondents. Awareness about the balanced diet, feed requirement of young stock, heifer and milch animals was found to be very low. Though 69.6 per cent of respondents were aware of the care of newly born calf, they were having a misconception that feeding colostrum would cause indigestion to the calf. Regarding the care of pregnant animal, 83.9 per cent of the respondents were aware of the practices recommended for the management of pregnant animals. It was learnt that the cattle sheds were cleaned with water once in three days or a week, but no disinfectant was used. Health and sanitation practices were followed by 73.2 per cent of the respondents as per the doctor's advice. Dehorning was not in practice. These results are in confirmation with the results of *Upadhyay and Desai (2011)*.

Technological needs of women in dairying: Table 2, reflect that the respondents considered balanced diet, health care and sanitation, care of pregnant animals and new born calf and correct procedure of milking as the most important areas of technologies compared to others. *Revathi and Krishnan (2012)* also reported that farm women preferred the same areas of training.

Table 1. The awareness of the selected respondents towards the technologies related to the dairy (N=60)

Item	Recommended Practice	%
Breed	Cows-Ongole, Jeresy, Buffalo-Murrah, Nili-Ravi	41.1
Balanced Feed	Green fodder – 30 kgs, Dry fodder - 3 kgs, Concentrate Mixture – 4 kgs(Gram, Brans), Mineral Mixture-60gms, Salt, Clean Water	29.3
Requirement of young stock	5lts milk + 1.5 kg mixture weight	33.4
Requirement of heifer	1 kg feed for every ½ kg body weight	23.6
Requirement of milch animals	2 kgs feed for every kg body weight	15.9
Care at calving *(Management)*	Keep the animal in clean surroundings, avail services of veterinary doctor	50.0
Care of newly born calf	Clean it with wet cloth, udder to be cleaned with potassium permanganate solutions, within 6-10 hrs after birth allow it to take mother's milk	69.6
Care of Pregnant animals	Do not make them run with other animals, stop milking after the completion of 7th month, mix one ounce bone meal and minerals in the feed	83.9
Cleanliness of cattle-sheds	Cleaning every day and spraying 2% formalin as disinfectant	0.00
Deworming	20 days after birth deworming should be done	16.1
Dehorning	12-14 days age	0.00
Health and sanitation	Treatment for *Haemorrhaegic Septicaemia*, Black quarter and Foot and Mount disease by taking the advice of Veterinary doctor	73.2

As per Table 3 caste and family income had shown negatively significant relationship at 0.05 per cent level with technological needs in dairying. It implies that higher the caste and family income, lower is the degree of technological need of respondents in dairy. Farm

Table 2. Rank order of the technological needs of respondents in dairying (N=56)

Subject Matter Areas	MS	Rank
Balanced diet	3.45	I
Health care and sanitation	2.67	II
Care of pregnant animals and new born calf	2.54	III
Right way of milking	2.45	IV
Maintenance of cattle shed	1.76	V
Processing of milk and preparation of milk products	1.45	VI
Rearing of animals	1.43	VII
Cultivation of fodder crops	1.10	VIII
Average Mean Score- 2.10		

Table 3. Correlation between the socio-personal factors and technological needs of the respondents in dairying

Variables	Dairying
Age	.1454
Caste	-.3232*
Education	.466
Type of family	.0421
Size	.1619
Category of the respondent	.0767
Ownership of land	.1582
Family income	.2188*
Farm expenses	.1996*
Participation in agriculture	.0219
Participation in horticulture	.0657
Participation in animal husbandry	.2696*

* significant at .05 level, ** significant at .01 level

experience and participation in animal husbandry had a positively significant relationship at .05 percent level. It could be inferred that as the farm experience and participation in animal husbandry increases, their desire for knowing technologies related to dairying also increases. The other factors have not shown any significant relationship with the technological needs of the respondents.

CONCLUSION

The study reveals that the respondents were not aware of the importance of proportions of balanced diet and also consider that balanced diet, health care and right way of milking are some of the important areas of technologies they would like to learn. Related departments should give more attention for creating the awareness of the women-based dairy practices through mass awareness campaigns on a large scale which in turn makes them more knowledgeable and there by better entrepreneurial behavior. In addition to training, the women are to be provided with proper institutional support and services like establishment of milk cooperative, credit and marketing which will enhance their managerial abilities in dairying. The extension agencies should concentrate more on contributing factors as revealed by the study i.e. social participation, management orientation, value orientation and role of training in dairying and also aim at manipulating these variables to their great advantage, for promoting entrepreneurial behavior among the dairywomen farmers.

Paper received on : July 03, 2014
Accepted on : August 12, 2014

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