



Working Pattern of Dairy Workers Involved in Dairy Activities

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ABSTRACT

Dairying in India has been considered to be playing a crucial role in India economy. Livestock management is a gender activity as both men and women are involved in the livestock management, but women play an important role in sustainability of livestock. Thus, the study focuses on constraints faced by women in livestock management. The study was carried out in Kanpur Nagar. The district was selected purposively because of the convenience of the researcher as she belonged to this area. Selection of blocks Kanpur Nagar district is divided in 10 blocks. Five blocks from each district namely Ghatampur, Sarsoul, Vidhunu, Kalyanpur, Shivrajpur were randomly selected for the study. Selection of villages Out of the total 50 villages in Kanpur block were randomly selected from each block to get a total of 10 villages, respectively. The results revealed that majority of respondents were from age group 30-50 years, that involvement of respondents in dairy practices, 95.0 per cent male and 71.0 per cent female involving in feeding the animals. 94 per cent male respondents were found to be involved in care of sick animals and 90.0 per cent female involved in care of pregnant animals in the study area.

Key word : Dairying; India economy; Dairy innovation; Farming community; Livestock management;

The affluence of India as a nation beyond any doubt rest on the progression and accomplishment realized in agricultural sector, including dairy farming as a crucial part and plays a vital complementary role in rising socioeconomic circumstances of the poor's who profusely involved in agriculture. Dairying has become important secondary source of income for millions of rural families and has assumed the most important role in providing employment and income generating opportunities particularly for small and marginal farmers. Dairy cattle are one of the most important investments a former can make to improve welfare, income and nutritional standers of the household because of their inherent value, the work they can perform, the way they can help diversity forming activities and the fundamental

nutritional work of milk produced. It estimated that around 150 million small scale dairy forming household engaged in milk production, the majority of them in developing countries. The roles that women play in the management of dairy cattle differ greatly among communities, countries and regions, although same patterns and tendencies can be identified across most regional context. Women tend to be more involved in tending dairy animals; women are in many cases central to milk production, although the responsibility for managing milk production does not always translate into ownership of dairy animal. This lack of ownership of and control over dairy animal is one of the main constraints that women face in dairy forming. It often precludes women's involvement in the decision-making

process, particularly in relation to the sale and /or purchase of dairy animals, as well as the use and sale of milk and milk products. Decisions related to purchasing or selling of animals, buying of feed, selling of milk and marketing of dairy products is mostly made by the male members of the family. Though most of the activities related to dairy farm practices are performed by women but often their opinion is not considered in case of planning and managing of the dairy farm as they have less access to information regarding improved dairy management practices (Pradhan *et al.*, 2017). Often it is assumed that a household is a unit of production where all the members have the same objectives and interests. The husband and wife may have both shared and separate objectives and interest in dairy production and each one tries to work toward achieving them. This situation has a great influence of the overall livestock management. Women play a major role in livestock management they solely or with the help of other family member perform nearly all the tasks related to livestock specially they shoulder responsibilities like feeding animals, care of animals, watering animals, collection of fuel, milking, cleaning of shade and animals etc. According to Yadav *et al.* (2014) the conclusion to be drawn from our study is that the productivity of animals owned by female headed households were medium to low as compared to males wherein productivity scores were medium to higher. Thus the study implied that improvements in productivity are possible and can contribute in enhancing the livelihood of female headed households by emphasizing more on new production technologies supported by efficient extension services for technology transfer and delivery of animal health care and breeding facilities, along with capacity building programmes. Thus, small scale dairy production can be realized as a means to reduce the poverty, improving the livelihood and nutritional security of these poor households. The objectives of the study are as follows :

- i. To study the socio-economic status of dairy farmers.
- ii. To study the insolvent of women in dairy status and working pattern.

METHODOLOGY

The study was conducted in Kanpur district and five blocks selected out of which 10 block in Kanpur

district. 50 villages selected from each block. Total sample size was selected 200 (100 male 100 female) dependent and independent variable was selected such as age, land holding, education and working pattern of dairy activates. The data were collected personally with the help of structured interview schedule. Data collected were statistically analyzed with the help of frequency and percentages, arithmetic mean, chi square (χ^2).

RESULTS AND DISCUSSION

The perusal of Table 1 reveals that distribution of respondents according to age group, 38.0 per cent male and 34.0 per cent female were belonging to the age group 30 to 40 Years whereas 32.0 per cent male and 38.0 per cent female belong to agree group 40 to 50 years 18.0 per cent male and 20.0 per cent female were found to be in age group up to 30 years whereas 12.0 per cent male and 8.0 per cent Female were belong to age group 50 years and above in the research study area Kanpur district. Thus, it can be concluded that majority of female and males belonged to age groups of 30-40 years and 40-50 years respectively.

Table 1. Distribution of respondents according to age group

Age group	Male		Female		Total	
	N	%	N	%	N	%
Up to 30 years	18	18.0	20	20.0	38	19.0
30 to 40 years	38	38.0	34	34.0	72	36.0
40 to 50 years	32	32.0	38	38.0	70	35.0
50 years and above	12	12.0	8	8.0	20	10.0
Total	100	100.0	100	100.0	200	100.0
χ^2	1.642					

*Significant at <0.05 ** Significant at <0.01 level of significance.

Table 2. Distribution of respondents according to land holding

Land holding	Male		Female		Total	
	N	%	N	%	N	%
Landless	25	25.0	27	27.0	52	26.0
Marginal	38	38.0	35	35.0	73	36.5
Small	22	22.0	20	20.0	42	21.0
Large	15	15.0	18	18.0	33	16.5
Total	100	100.0	100	100.0	200	100.0
χ^2	0.568 p>0.05					

The perusal of data in Table 2 reveals that

distribution of male and female according to land holding, 38.0 per cent male and 35.0 per cent female respondents having marginal land holding whereas, 22.0 per cent male and 20.0 per cent female respondents were having male land in the study area. 15.0 per cent male and 18.0 per cent female having large land in the study area while 25.0 per cent male and 27.0 per cent Female have no land in the study area.

Table 3. Distribution of respondents according to annual income

Annual Income	Male		Female		Total	
	N	%	N	%	N	%
Up to Rs 50000/-	28	18.0	20	20.0	38	19.0
Rs 50000 to Rs 1lac	20	20.0	33	33.0	53	26.5
Rs 1 lac to Rs 1.5 lac	27	27.0	25	25.0	52	26.0
Rs 1.5 lac and above	25	25.0	22	22.0	47	23.5
Total	100	100.0	100	100.0	200	100.0
χ^2	4.790					

*Significant at <0.05 ** Significant at <0.01 level of significance.

Table 3 reveals that distribution of male and female as per annual Income, 27.0 per cent male and 25.0 per cent female have earned annually Rs.01 lac to Rs.1.5 lac whereas 25 per cent male and 22.0 per cent female earned Rs. 1.5 lac and above in the study area.20.0 per cent male and 33.0 per cent female respondents earned annually Rs. 50000 to Rs. 01 lac while 28.0 per cent Male and 20.0 per cent female respondents earned up to Rs. 50000 annually in the study area.

Table 4. Involvement of respondents in dairy practices

Dairy practices	Male		Female		χ^2
	Yes	No	Yes	No	
Feeding and watering					
Animal grazing	80.0	20.0	58.0	42.0	11.314**
Collection of fodder	70.0	30.0	65.0	35.0	0.570
Chaffing the fodder	88.0	12.0	38.0	62.0	53.625**
Mixing green fodder with roughage	84.0	16.0	68.0	32.0	7.017**
Feeding the animals	95.0	5.0	71.0	29.0	20.411**
Storage of feed and fodder	86.0	14.0	70.0	30.0	7.459**
Watering the animals	90.0	10.0	65.0	35.0	17.921**

*Significant at <0.05 ** Significant at <0.01 level of significance.

The perusal of Table 4 reveals that involvement of respondents in dairy practices, 80.0 per cent male and

58.0 per cent female were involved to animals for grazing with χ^2 (11.314**) was value as a significant response at 1.0 per cent level 70.0 per cent male and 65.0 per cent female were involving in collection of fodder, 88.0 per cent male and 38.0 per cent female involved chaffing the fodder, 84.0 per cent male and 68.0 per cent female involved in mixing green fodder with roughage with obtained value of χ^2 (7.017**) significant at 1.0 per cent probability level 95.0 per cent male and 71.0 per cent female involving in feeding the animals with χ^2 (20.411**) value significant at 1.0 per cent level, 86.0 per cent male and 70.0 per cent female respondents involved in storage of feed and fodder with χ^2 value (7.459**) at 1.0 per cent significance in the study area and 90.0 per cent male and 65.0 per cent female involved in dairy activity watering the animals with χ^2 (17.921**) value significant at 1.0 per cent probability level in the study area of Kanpur district. Dairy business is a good means of earring for living hood, that why male and female both are involved in this. In these women does this like making caw dung cake, milking, cleaning of animal shed, chaffing the fodder, mixing green fodder with roughage. Whereas, male do think like sale and purchase of animals, purchase of feed and fodder, care of sick animals, taking animals for treatment, vaccination/medication, construction of animal shed.

Natarajan and Bharathi (2020) reported that formulation of feed ration and feeding concentrate, green fodder, dry fodder and mineral mixture was assessed. The quantity of feed and fodder given and the cost per kg of feed was also calculated. The details are presented below. Feeding concentrate ration was improved from 49 per cent to 71 per cent. Feeding mineral mixture was adopted only by 19 per cent of farmers due to non-availability and high cost. But before the conduct of school, it was only 4 per cent.

The perusal of Table 5 reveals that 72.0 per cent male and 55.0 per cent female respondents were involved in construction of animal shed with χ^2 (6.234**) significant value at 1.0 per cent level while 55.0 per cent male and 78.0 per cent female involved in cleaning of animals shed and χ^2 (11.873**) significant at 1.0 per cent level 68.0 per cent male and 80.0 per cent female involved dairy practices like washing and grooming of animals with χ^2 (3.943*) significant at 5.0

per cent level whereas 72.0 per cent male and 48.0 per cent female involved in milking in the study area with χ^2 (12.001**) significant at 1.0 per cent level 42.0 per cent male and 80.0 per cent female were found to be involved in disposal of cow dung cake with χ^2 (30.349**) significant at 1.0 per cent level while 62.0 per cent male and 44.0 per cent females were in valued in maintaining form and dairy records with χ^2 (6.503*) significant value.

Table 5. Involvement of respondents in management practices

Management practices	Male		Female		χ^2
	Yes	No	Yes	No	
Construction of shed	72.0	28.0	55.0	45.0	6.234**
Cleaning of animal shed	55.0	45.0	78.0	22.0	11.873**
Washing and grooming of animals	68.0	32.0	80.0	20.0	3.943*
Milking	72.0	28.0	48.0	52.0	12.001**
Disposal of cow dung	42.0	58.0	80.0	20.0	30.349**
Maintaining farm and dairy records	62.0	38.0	44.0	56.0	6.503**

*Significant at <0.05 ** Significant at <0.01 level of significance.

Table 6. Involvement of respondents in health care practices

Health care practices	Male		Female		χ^2
	Yes	No	Yes	No	
Care of sick animals	94.0	6.0	80.0	20.0	8.665**
Care of pregnant animals	80.0	20.0	90.0	10.0	3.982*
Animals for treatment	90.0	10.0	48.0	52.0	41.234**
Vaccination/Medication	80.0	20.0	35.0	65.0	41.432**

The perusal of Table 6 reveals that 94 per cent male and 80.0 per cent female respondents were found to be involved in care of sick animals with χ^2 (8.665**) significant at 1.0 per cent level whereas 80.0 per cent male and 90.0 per cent female involved in care of pregnant animals in the study area 90.0 per cent male and 48.0 per cent female respondents involved in taking animals for treatment with χ^2 (41.234**) significant at 1.0 per cent probability level while 80.0 per cent male and 35.0 per cent female respondents involved for vaccination/medication in the in the study area with χ^2 (41.432**) was significant at 1.0 per cent probability level.

The perusal of Table 7 reveals that 65.0 per cent male and 82.0 per cent female respondents were found

to be involved in processing of livestock products in the study area with χ^2 (7.419**) was significant at 1.0 per cent level whereas 42.0 per cent male and 65.0 per cent female respondents involved in sale of milk and milk products with χ^2 (10.632**) significant at 1.0 per cent level 58.0 per cent male and 30.0 per cent female respondents involved in sale and purchase of animals in the study area with χ^2 value (15.909**) significant at 1.0 per cent level while 62.0 per cent male and 76.0 per cent female involved in purchase of feed and fodder in the study area with significant chi-square value at 5.0 per cent level. Roy *et al.* (2018) the study further reveals that women role in economic activities like making decision to buying or selling and keeping money were considerably less compared to men in animal husbandry practices. Mann Whitney U test shows highly significant difference between men and women in relation to livestock marketing practices. Policy makers as well as the extension agencies working in hill region should focus more on women for dissemination of recent livestock technologies to enhance the production performance of animal husbandry sector in hill farming situation.

Table 7. Involvement of respondents in processing and marketing practices

Processing and marketing practices	Male		Female		χ^2
	Yes	No	Yes	No	
Processing of livestock products	65.0	35.0	82.0	18.0	7.419**
Sale of milk and milk products	42.0	58.0	65.0	35.0	10.632**
Sale and purchase of animals	58.0	42.0	30.0	70.0	15.909**
Purchase of feed and fodder	62.0	38.0	76.0	24.0	4.582*

*Significant at <0.05 **Significant at <0.01 level of significance.

CONCLUSION

In India dairying occupies a special place and plays a significant role in national economy as well as in socio-economic development of millions of rural and urban households in India. Dairy sector has not only been contributed in generating employment opportunities and supplementing the income of small and marginal farmers but also improving their nutritional standard. 80 per cent of farm women work in dairy sector as a responsibility

by birth. Whether she is a large or landless labourer her livelihood is incomplete without owning cattle. So, almost all farm women are engaged actively in dairy farming and spend their daily time in agriculture, dairy and household activities. Generally, women of age group above 40 years of age are more actively involved in daily activities because women get married at an early age in the villages. By the age of 40 years, they are matured and well known among the village folk so, the Pardah system becomes flexible for her and she can get involved in activities outside the home such as feeding

the animals, collection of fodder, making dung cakes, etc. (Bhanotra et al., 2015). Rural women's participation was relatively high in activities like care of new born calf, care of sick animals, cleaning activities, produce and feeding of animals. However, their participation was relatively low in activities like sale of animals, breeding of animals, fodder harvesting, cultivation and maintenance of animals' sheds. Male dominance and traditional belief system were the main factors which had affected the involvement of rural women in decision making process.

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