

PROFILE OF FARM WOMEN INVOLVED IN DAIRY OCCUPATION AND THEIR SUGGESTIONS TO OVERCOME THE CONSTRAINTS

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ABSTRACT

Farm women play a vital role in agricultural production and rural development, contributing significantly to both on-farm and off-farm activities. The present study was conducted in Bharuch district. Among each district two talukas Jambusar and Jhagadia were selected. From each taluka, six villages were selected and from each village 10 respondents were selected. Thus, total 120 respondents were selected. The study was aimed to highlight the profile of farm women involved in dairy occupation and to find out the constraints faced by farm women and seek their suggestions to overcome the constraints. The present study revealed that more than half of the respondents were in middle age group and were participating in dairy and agriculture occupation. Less than half of the respondents were having higher school education, membership in more than one organization, semi medium size of land holding and high level of knowledge about dairy occupation. Majority of respondents were having annual income above ₹ 1, 00,000, medium herd size, medium mass media exposure and medium level risk orientation. More than one third of the respondents were found in large size family group. Three variables namely age, occupation and herd size were accounting influences on the participation of farm women in dairy occupation. Major constraints faced by farm women were as milk rate is not proper followed by high cost of animal feed and concentrate and preparation of milk product is uneconomic. Major suggestions given were animal feed and concentrate should be available in the market at reasonable rate followed by government should give subsidy for preparation of milk product and milk rate should be remunerative.

Keywords: farm women, dairy occupation, profile, constraints, suggestions

INTRODUCTION

India is the largest milk producer and consumer in the world. India is ranked first in global milk production contributing 24.64 percent. Additionally, accounts for 5 per cent of the economy and employs more than 8 crore farmers. Milk production is growing at the Compound Annual Growth Rate (CAGR) of 5.85% over the past 9 years from 146.31 million tonnes during 2014-15 to 230.58 million tonnes during 2022-23 (Anonymous, 2023). In India, the dairy sector plays an important role in socio-economic development and its constituent important segment in rural economy. Indian dairy industry provides livelihood to millions of homes in villages and ensure to supply quality of milk and milk products to both rural and urban.

Farm women play a pivotal role in the dairy sector, contributing significantly to both household livelihoods and rural economies. Dairy occupation is labor-intensive and relies heavily on the active participation of women in various activities such as feeding, milking, cleaning, and managing livestock health (Mahammad et al., 2022a). In many rural

settings, women possess traditional knowledge and skills related to animal care, disease management, and milk processing, which they pass down through generations. Farm women often face many constraints while participating in Dairy occupation (Mahammad et al., 2022b). Documenting these constraints allows for a systematic approach to address them, enabling stakeholders to implement effective solutions that can enhance their overall experience in dairy farming. Therefore, the present study was conducted with the following objectives.

OBJECTIVES

- (1) To study the profile of farm women involved in dairy occupation
- (2) To explore the constraints faced by the farm women in dairy occupation and seek their suggestions to overcome the constraints

METHODOLOGY

The current study was conducted in Bharuch

districts. Bharuch district has nine talukas viz. Ankleshwar, Bharuch, , Amod, Jambusar, Jhagadia, Hansot, Netrang, Vagra and Valia. Out of which two talukas viz., Jambusar and Jhagadia were selected purposively based on the maximum number of dairy co-operative societies. Six villages were selected randomly from each taluka. So, total 12 villages were selected. From each village, 10 farm women were selected as respondents. Thus, total 120 respondents were finally selected for the present study.

An interview schedule was developed as per the objectives of the study. The data were collected through the personal interview method. For the present study variables such as age, education, experience, annual income, size of family, social participation, size of land holding, occupation, herd size, mass media exposure and risk orientation were selected in the profile of farm women. The frequency obtained for each category applicable to the variables of the respondents was summed up and converted into a percentage. Further, open-ended questions were used to document the constraints and suggestions of respondents. The responses were counted in frequency and converted into a percentage. Lastly, the same constraints and suggestions were ranked.

RESULTS AND DISCUSSION

Profile of farm women involved in dairy occupation

Table 1 indicated that more than half (63.33 %) of the respondents were in the middle age group (36 to 50 years) followed by 20.00 per cent with old age (above 50 years) and 16.67 per cent respondents were in the young age group (up to 35 years). The probable reason might be that the less interest among the young generation to be a part of dairy occupation and the majority of medium aged respondents are actively working at dairy farm and being responsible for maintaining their families. This finding is in conformity with the findings of Prajapati *et al.* (2019).

It can be concluded that two fifth (40.00 %) of the respondents had higher school education, followed by 22.50 per cent of the respondents were functionally literate, while 13.33 per cent were illiterate, 15.00 per cent were having primary school education, 13.33 per cent were illiterate, 6.67 per cent were having middle school education and 2.50 per cent were having college/ Post graduation. This may be due to the availability of higher school at village level and taluka place. This finding is conformity with the findings of Christian *et al.* (2019).

Table 1: Distribution of farm women involved in dairy occupation based on their profile

(n=120)

Sr. No.	Variables	Categories	Frequency	Percentage
1	Age	Young (up to 35 years)	20	16.67
		Middle (between 36 to 50 years)	76	63.33
		Old (above 50 years)	24	20.00
2	Education	College / Post graduation	03	02.50
		Higher school	48	40.00
		Middle school	08	06.67
		Primary school	18	15.00
		Functionally literate	27	22.50
		Illiterate	16	13.33
3	Farming experience	Low (Up to 13 years)	30	25.00
		Medium (14 to 24years)	79	65.83
		High (more than 24 years)	11	09.17
4	Annual income	Above ₹ 2, 00, 000	05	04.17
		₹ 1, 50, 001 to ₹ 2, 00, 000	50	41.67
		₹ 1, 00, 001 to ₹ 1, 50, 000	22	18.33
		₹ 50, 001 to ₹ 1, 00, 000	31	25.83
		Up to ₹ 50,000	12	10.00
5.	Size of family	Very small size (1 to 2 member)	09	07.50
		Small size family (3 to 4 members)	26	21.67
		Medium size family (5 to 6 members)	33	27.50
		Large size family (7 to 8 members)	45	37.50
		Very large size family (Above 8 members)	07	05.83
6	Social participation	No membership in any organization	14	11.67
		Membership in one organization	42	35.00
		Membership in more than one organization	55	45.83
		Holding position in organization	09	07.50

Sr. No.	Variables	Categories	Frequency	Percentage
7	Landholding	Marginal land holding (Up to 1.0 ha)	26	21.67
		Small land holding (1.01 to 2.0 ha)	28	23.33
		Semi medium land holding (2.01 to 4.0 ha)	49	40.83
		Medium land holding (4.01 to 10 ha)	12	10.00
		Big land holding (above 10 ha)	05	04.17
8	Occupation	Dairy	41	34.17
		Dairy + agriculture	67	55.83
		Dairy + agriculture along with other occupation	12	10.00
9	Herd size	Small (Up to 2 milch animals)	41	34.17
		Medium (3 to 4 milch animals)	76	63.33
		Large (More than 4 milch animals)	03	02.50
10	Mass media exposure	Very low (Up to 2)	06	05.00
		Low (3 to 4)	09	07.50
		Medium (5 to 7)	80	66.67
		High (8 to 9)	22	18.33
		Very high (Above 9)	03	02.50
11	Risk Orientation	Low (up to 11)	15	10.83
		Medium (11 to 14)	86	71.67
		High (Above 15)	21	17.50

It can be concluded that the majority (65.83%) of the respondents had medium level of experience in dairy occupation followed by 25.00 per cent were having low level of experience and only 9.17 per cent had high level of experience. This may be due to the fact that in Bharuch district every village has established a milk co-operative society and also it provides additional income which may have motivated them for dairy occupation. The finding is supported by the findings of Prajapati *et al.* (2019).

The data revealed that nearly two fifth (41.67%) of the respondents were found with income ranging from ₹ 1, 50, 001 to ₹ 2, 00, 000, whereas 25.83 per cent were found with income ranging ₹ 50, 001 to ₹ 1,00,000. Only 10.00 per cent and 4.17 per cent of them were found with income ranging up to ₹ 50, 000 and above ₹ 2, 00, 000, respectively. This might be due to that they can use more scientific methods related dairy. This finding is in line with the findings of Islam *et al.* (2019).

The study points out that 37.50 per cent of the respondents were found in large size family category followed by 27.50 per cent and 21.67 per cent in medium and small size of family, respectively. Only 7.50 per cent and 5.83 per cent were having very small and very large size of family, respectively. The probable reason for this might be the existence of traditional system of living together in a family in villages. This finding is in line with the findings of Thaker *et al.* (2020).

Less than half (45.83 %) of the respondents

had membership in more than one organization, whereas 35.00 per cent of the respondents had membership in one organization and the respondents who were holding position in any organization were only 7.50 per cent. Only 11.67 per cent of respondents had no membership in any village institutes. The probable reason for this might be that most of the farm women were members in village milk cooperative society to get benefits of loan, subsidy and easily availability of inputs *etc.* and many of them were also members of mahila mandal. This finding is in line with the reported of Prajapati *et al.* (2019).

The data presented less than half (40.83 %) of the respondents had semi medium land holding category followed by 23.33, 21.67 and 10.00 per cent had small, marginal and medium size of land holding, respectively. Only 4.17 per cent had big size of land holding. The probable reason of this finding might be due to the inherited deviation of land from generation to generation. Industrialization and urbanization may also play an important role for reducing per capita availability of land. This finding is in line with the pointed of Vahora *et al.* (2016).

Majority (55.83 %) of the respondents were engaged in dairy and agriculture followed by 34.17 per cent of the respondents were engaged in dairy occupation and 10.00 per cent were engaged in dairy and agriculture along with other occupation. The possible reason might be that the farm women may have considered the farming and dairy as interdependent business enterprise. Other businesses also have been carried by them for livelihood and earning a higher income. It is also

possible that there might be fewer opportunities for getting suitable jobs even after higher education in the state, which might have prevented them to go for any other supplementary income.

The study points out that 63.33 per cent of the respondents had medium herd size followed by 34.17 per cent had small herd size and only 2.50 per cent had large herd size. This indicates that the farm women had a medium size of herd. The probable reason might be that most of the respondents were aware about the importance of dairying, which provide a regular income and also help in minimizing the risk of crop failure. This finding was in line with the findings of Chandravadia *et al.* (2018).

It can be concluded that 66.67 per cent of

respondents had medium mass media exposure followed by 18.33 per cent had high mass media exposure while, 7.50 per cent, 5.00 per cent and 2.50 per cent had low, very low and very high mass media exposure, respectively. The probable reason for this might be due to better economic conditions and higher educational level of farm women that led them to better exposure of mass media. This finding is conformity with the findings of Chandravadia *et al.* (2018).

Majority (71.67%) of respondents had medium level risk orientation followed by 17.50 per cent had high level risk orientation and 10.83 per cent had low level risk orientation. The reason for above situation might be better annual income and large herd size. Moreover, economic status might have helped them to take risk in dairy occupation. This finding was in the line with the findings of Chandravadia *et al.* (2018).

Table 2: Stepwise multiple regression analysis of independent variables and participation farm women in dairy occupation (n=120)

Sr. No.	Independent variable	Partial regression coefficient (b)	Standard error	Multiple Correlation Coefficient 'R'	Adjusted R ²
	(Constant)	94.647	4.307	0.558	0.294
1	Age (X ₁)	-8.25**	1.619		
2	Occupation (X ₈)	3.621**	1.103		
3	Herd size (X ₉)	1.428**	0.448		

**Significant at 1 Percentage level of probability

As a result of stepwise regression analysis, the following model was obtained:

$$Y = 94.647 + (-8.25)X_1 + (3.621)X_8 + (1.428)X_9$$

Where,

Y = Participation of farm women in dairy occupation

A = The intercept *i.e.*, 94.647

b_i = Regression coefficient, i = 1,2,3,.....,n X₁ = Age

X₈ = Occupation X₉ = Herd size

participation of farm women in dairy occupation. These three independent variables together accounted for 29.40 per cent variation as indicated by the adjusted R² value. The partial regression coefficients (b) indicate that one unit change in age, occupation and herd size corresponded to the significant increase in participation of farm women in dairy occupation -8.250, 3.621 and 1.428 units, respectively. The residual value represents the unexplained variance or error in the model.

Constraints Faced by Farm Women in Dairy Occupation

Constraint refers to situations or circumstances that restrict, impede or limit the activity or performance of an individual.

Table 2 revealed that out of eleven independent variables, three variables namely age (X₁), occupation (X₈) and herd size (X₉) were accounting influences on the

Table 3 : Constraints faced by farm women in dairy occupation (n=120)

Sr. No.	Constraints	Frequency	Percentage	Rank
1	Milk rate is not proper	95	79.17	I
2	Preparation of milk product is uneconomic	76	63.33	III
3	High cost of animal feed and concentrate	90	75.00	II
4	High cost of vaccine and medicines	70	58.33	V
5	Inadequate knowledge about different disease and their control	72	60.00	IV
6	Cost of crossbreed cow is very high	65	54.17	VI
7	Irregular payment of sell milk	55	45.83	VII
8	Non-availability of dry fodder	40	33.33	VIII
9	Lack of knowledge about requirement of feed and fodder for milch animals	25	20.83	IX

The data presented in table 3 indicated that out of all constraints milk rate is not proper ranked as first (79.17 %) followed by high cost of animal feed and concentrate ranked as second (75.00 %), preparation of milk product is uneconomic ranked as third (63.33 %), inadequate knowledge about different disease and their control ranked as fourth (60.00 %), high cost of vaccine and medicines ranked as fifth (58.33 %), cost of crossbreed cow is very high ranked as sixth (54.17 %). Further, they reported that irregular payment of sell milk ranked as seventh (45.83 %), non-availability of dry fodder ranked as eighth (33.33 %) and lack of knowledge about requirement of feed and fodder for milch animals ranked as ninth (20.83 %). This finding is in conformity with the findings of Archana (2019).

Suggestions of respondents to overcome the constraints

Suggestion refers as solution about constraints which can be used as to overcome or to minimize them. The data in this regard are presented in table 2.

The data presented in table 3.2 indicated that the suggestions offered by farm women, major suggestions given were animal feed and concentrate should be available in the market at reasonable rate ranked as first (70.83 %) followed by government should give subsidy for preparation of milk products ranked as second (66.67 %), milk rate should be proper ranked as third (58.33 %), vaccine and medicine should be available in market at nominal price ranked as fourth (57.50 %), regular guidance should be given regarding different disease and their control by animal husbandry department ranked as fifth (54.17 %), payment of milk should be regular and in time ranked as sixth (51.67 %), high milking cow should be available by government ranked as seventh (41.67 %), provide training and knowledge about requirement of feed and fodder for milch animals ranked as eighth (29.17 %) and good quality feed should be supplied by different agencies ranked as ninth (16.67 %). This finding is in conformity with the findings of Archana (2019), Usadadiya et al. (2023), Jadav et al. (2023), Naik et al. (2024), Swami et al. (2024) and Ghasura et al. (2024).

Table 4 : Suggestions of farm women to overcome the constraints

(n=120)

Sr. No.	Suggestions	Frequency	Percentage	Rank
1	Milk rate should be remunerative	70	58.33	III
2	Government should give subsidy for preparation of milk products	80	66.67	II
3	Animal feed and concentrate should be available in the market at reasonable rate	85	70.83	I
4	Vaccine and medicine should be available in nominal price	69	57.50	IV
5	Regular guidance should be given regarding different disease and their control by animal husbandry department	65	54.17	V
6	High milking cow should be available by government	50	41.67	VII
7	Payment of milk should be regular and in time	62	51.67	VI
8	Good quality feed should be supplied by different agencies	20	16.67	IX
9	Provide training and knowledge about requirement of feed and fodder for milch animals	35	29.17	VIII

CONCLUSION

The study found that over half of the participants were middle-aged individuals involved in dairy and agriculture. Less than half had higher school education, held memberships in multiple organizations, managed semi-medium land holdings, and possessed a high level of knowledge about dairy. Most respondents reported annual incomes above ₹ 1,00,000, with medium herd sizes, moderate mass media exposure, and a medium level of risk orientation. More than one-third belonged to large families. Key constraints faced by farm women included inadequate milk prices, high animal feed costs, and uneconomic milk product preparation. Suggestions to address these issues include ensuring affordable animal feed, government subsidies for

milk production, and establishing fair milk prices to enhance the sustainability of dairy as a livelihood.

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CONFLICT OF INTEREST

All authors declare that they have no conflict of interest.

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