

ATTITUDE OF FARM WOMEN TOWARDS IMPROVED DAIRY HUSBANDRY PRACTICES AND ITS ASSOCIATION WITH INDEPENDENT VARIABLES

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ABSTRACT

The study was focused on the attitude and its association with selected independent variables regarding improved dairy husbandry practices in the jurisdictional area of Jaipur dairy union of Rajasthan state. Two dairy zones Bindayaka and Dudu were selected from Jaipur dairy union. A sample of 120 respondents was selected from two dairy zones by using simple random sampling technique. The attitude scale was developed in line with the Likert's technique. The ex-post facto research design was followed; primary data were collected from the selected respondents with the help of pre-structured schedule. Descriptive statistical tools were used to analyze the data. It was found that majority of farm women (72.50 per cent) were in favourable attitude group whereas 15.00 per cent farm women were in the less favourable attitude group and remaining 12.50 farm women had more favourable attitude. Regarding item wise attitude 'Proper veterinary facilities should be available for dairy animals at local level' was found the most perceived attitude, followed by the 'Dairy farming is a complex and high-cost bearing practice' was the least perceived attitude by the farm women towards improved dairy husbandry practices. There was a positive and significant relationship between the attitude level of farm women with education, herd size, size of land holding, annual income, extension contacts, social participation, DCS distance, dairying experience and training exposure. In case of age there was a positive and non significant relationship between the attitude level of farm women about improved dairy husbandry practices.

Keywords: attitude, farm women, dairy husbandry, feeding, vaccination, modernization

INTRODUCTION

Indian economy is mainly based on agriculture in which dairy husbandry is a significant economic activity in rural areas. The planning commission of India named the cattle industry a "Power House of Growth". In rural areas, rearing animals is considered the second most significant economic activity after agriculture. The per capita availability of milk was 459 g per day in India in 2022–2023 against the world average 322g per day. For increasing the milk production and making the dairy business more remunerative, it is essential to go for the adoption of improved dairy husbandry technologies in the field of health care, feeding, breeding and management. The Government of India intervened to contain the disease through vaccination and provided financial and technical support to the affected states/Union Territories (UT).

NDDB organised the International Dairy Federation's World Dairy Summit 2022 (IDF WDS 2022) at

the India Expo Centre and Mart, Greater Noida during 12-15 September, 2022. The theme of the Summit was "Dairy for Nutrition and Livelihood". The Summit was hosted in India after a gap of 48 years since the International Dairy Congress in 1974. (source: NDDB Annual report, 2022-23). Rajasthan's economy is still based mostly on agriculture and related activities. The three main sources of revenue from the livestock industry in the state of Rajasthan are milk, eggs and meat. An estimated 33.3 million metric tonnes of milk was produced in Rajasthan (Economic Survey, annual report, 2022-23).

The individuals' attitudes, shaped by their emotional responses and cognitive evaluations towards symbols, slogans, personalities or ideas, strongly influence their acceptance or rejection. People tend to favorably embrace elements that enhance their well-being, leading to a positive attitude towards them. Therefore, it is evident that attitude significantly influences an individual's perception level. The attitude of farm women towards improved dairy husbandry

practices plays a crucial role in the modernization of the sector. This study focuses on examining the attitudes of farm women towards improved dairy husbandry practices.

OBJECTIVES

- (1) To know the attitude of farm women towards improved dairy husbandry practices
- (2) To ascertain the association between selected independent variables with attitude of farm women towards improved dairy husbandry practices

METHODOLOGY

The study was confined in the area of Jaipur dairy union of Rajasthan state. The Jaipur dairy union comprises of nine dairy zones, out of which, two dairy zones Bindayaka and Dudu was selected on the basis of highest registered Dairy Cooperative Societies (DCSs). Therefore, nine DCSs from Bindayaka and eleven DCSs from Dudu dairy zone were selected randomly through proportional allocation by using simple random sampling technique to the size of sample. In each DCS 6 registered dairy farm women were selected randomly. Hence, total sample of 120 farm women from 20 DCSs were selected. Primary data were collected from the selected respondents with the help of pre-structured schedule. To measure the attitude level of farm women towards improved dairy husbandry practices, the scale adopted by Sharma (2013); Darj *et al.* (2017); Patel *et al.* (2018); Harikrishna *et al.* (2021), was used with slight modification as per the suggestion given by the experts. In order to get five point judgement, five alternative response categories *viz.*, “strongly agree” (SA), “agree” (A), “undecided” (UD), disagree(D) and “strongly disagree” (SDA) and scores 5,4,3,2,1 for positive statements and vice-versa for negative statements was assigned to each statement. According to Edwards (1957) 25 per cent of the highest total score and 25 per cent of the subject with the lowest total score were taken assuming that these two groups (high and low) would provide the criterion group in items of evaluating the individuals statements. The reliability of attitude scale construction was determined by using “split half method”. The item of the scale was divided into two halves by pooling the odd numbered items for one scale and even numbered items for the other scale. Since the contents of attitude scale were derived from the list of statements based on the opinion of the experts, it was assumed that the score obtained by administering the attitude scale of this study would measure what was intended to be measured. Efforts were made to select more or less equal number of positive

and negative statements. Therefore, 32 statements were finally selected by which their “t” value, was significant. Descriptive statistical tools such as frequency, percentage, mean per cent score and standard deviation was used to analyze and interpret the collected data. Based on calculated mean and standard deviation, the attitude of farm women was categorized into three categories *viz.*, less favourable (Score below Mean-S.D.), favourable (Score from Mean-S.D. to Mean+S.D.) and more favourable (Score above Mean+S.D.). Attitude of farm women towards different improved practices of dairy husbandry was also measured by using mean per cent scores and ranked accordingly. The correlation coefficient (r) is a measure of the relationship between the attitude and independent variables and the significance of “r” value was tested by using “t” test.

RESULTS AND DISCUSSION

Measurement of the attitude of farm women towards improved dairy husbandry practices

The data presented in Table 1 and Fig. 1 reveal that majority of the farm women (72.50%) had favourable attitude followed by 15.00 per cent and 12.50 per cent farm women who expressed less favourable and more favourable attitude towards improved dairy husbandry practices. It may be concluded from the findings that majority of farm women were found to have favourable attitude towards improved dairy husbandry practices. This might be due to the facts that dairy husbandry become an important occupation in rural areas due to reduction of crop cultivation area because ground water not available in sufficient quantity and quality for crop irrigation. Then only dairy husbandry has become the main source of income in rural areas for livelihood. Similar findings were also observed by Patel *et al.* (2014), Chethan *et al.* (2015), Patel *et al.* (2015), Patel *et al.* (2020), Ghasura and Bhatt (2022) and Parmar *et al.* (2024).

Table 1: Attitude of farm women towards improved dairy husbandry practices (n = 120)

Sr. No.	Category of Attitude	Frequency	Percent
1	Less favourable (below 116.15 score)	18	15.00
2	Favourable (from 116.15 to 134.11 score)	87	72.50
3	More favourable (above 134.11 score)	15	12.50

Mean = 125.13

S.D. = 8.98

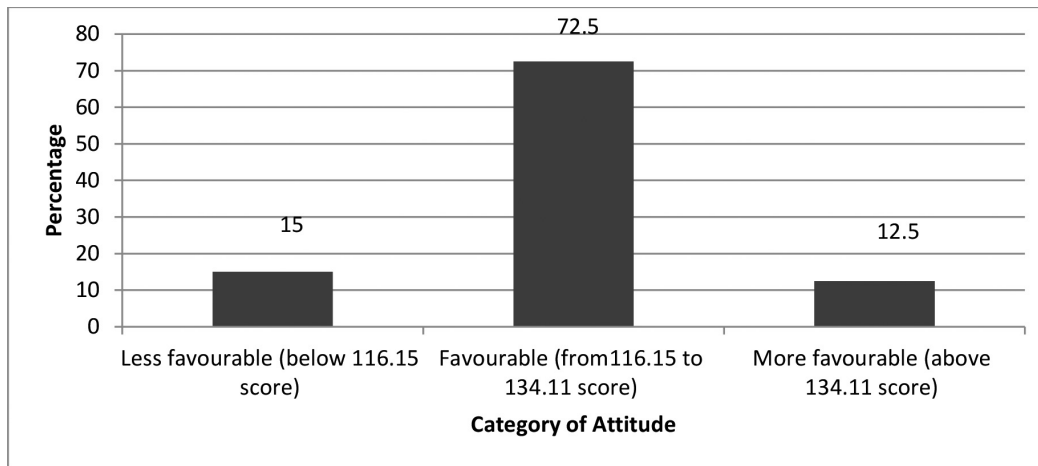


Fig. 1 : Attitude of farm women towards improved dairy husbandry practices

Item wise attitude of farm women towards improved dairy husbandry practices

The statement wise attitude of farm women towards improved dairy husbandry practices as measured on five-point continuum scale has also been presented in Table 2, Fig. 2(a) and Fig. 2(b). The data given in Table 2 reveal that the highest degree of attitude of farm women was found about the activity *i.e.*, “proper veterinary facilities should be available for dairy animals at local level” (93.83 MPS), hence, it was ranked first. The second rank was awarded to the statement “dairy animals should be vaccinated round the year for securing to diseases and good health” (91.50 MPS) followed by “dairyman is not perfect observer to diagnose the heat cycle of dairy animals”(90.83 MPS), “total quantity of produced milk is compulsory to sale out to dairy co-operative society” (90.33 MPS) and “dairy farming is an occupation of poor farm women for livelihood” (86.83 MPS) which were ranked III, IV and V, respectively.

The reason is that farm women possessed complete knowledge about the dairy husbandry practices. The farm women were also having high degree of attitude towards the statements related to improved dairy husbandry practices which were “the cross breed heifer conceives at later age in comparison to deshi heifer” (86.00 MPS), “In the dairy animals, concentrate feed and green fodder should be given in a balance ratio to protect from diseases and physiological disorders/nutrient deficiency” (85.83 MPS), “exotic breeds of cow always produce higher milk than indigenous breeds” (85.66 MPS), “full hand milking is the most important method of milking” (84.50 MPS) and “ pregnant animals don’t require special care during pregnancy” (83.16MPS) which were ranked VI, VII, VIII, IX and X, respectively.

The respondents also indicated the moderate attitude towards the statements of dairy husbandry practices were like

“dairy animals need not to be regularly washed and cleaned for good health” (81.33 MPS), “dairy farming creates additional employment for farm women” (79.16 MPS), “initial cost of dairy is higher than cost of after establishment” (79.00 MPS), “dairy farming is not economically useful for farm women” (78.83 MPS), “there is favouritism and nepotism in selection of members in dairy co-operative society” (78.66 MPS), “the milk of deshi cattle contains higher fat than exotic breed” (78.50 MPS), “record keeping is essential to know the pedigree and/or milk production of dairy animals” (78.16 MPS), “dehorned dairy animal is not liked by the farm women” (77.83 MPS), “branding is one of the important method for identification of dairy animals” (77.00 MPS) and “animal sheds should be cleaned daily for good health of dairy animals” (76.16 MPS) which were ranked XI, XII, XIII, XIV, XV, XVI, XVII, XVIII, XIX and XX, respectively.

The farm women expressed good level of attitude towards the statement *viz.*, “dairy farming improves the living standard of the farm women” (75.66 MPS), “dairy co-operative society gives higher price than local vendors” (75.16 MPS), “for breed improvement, A.I. practice is easy and important than natural breeding” (74.66 MPS), “higher educated farm women never takes interest to establish dairying” (74.33 MPS) and “cost of milk production per litter is higher in exotic breeds of cattle” (73.50 MPS) of improved dairy husbandry practices which were ranked XXI, XXII, XXIII, XXIV and XXV, respectively.

The dairy co-operative society members also shown slightly favourable attitude towards statements like “milk of deshi cattle is more tasty as compared to the milk of cross breed cattle” (71.83 MPS), “burdizzo castration is the simplest method of castrating of new born animals” (71.66 MPS), “there is no provision of training for farm women of dairy co-operative society” (67.33 MPS), “without loaning facility dairy farming is not possible to start” (65.66 MPS),

Table 2: Item wise attitude of farm women towards improved dairy husbandry practices

(n=120)

Sr. No.	Statements	MPS	Rank
1	Exotic breeds of cow always produce higher milk than indigenous breeds	85.66	VIII
2	Salt/mineral mixture is important for improving the health of dairy animals	64.00	XXX
3	Full hand milking is the most important method of milking	84.50	IX
4	Record keeping is essential to know the pedigree and/or milk production of dairy animals	78.16	XVII
5	Animal sheds should be cleaned daily for good health of dairy animals	76.16	XX
6	Dairyman is not perfect observer to diagnose the heat cycle of dairy animals	90.83	III
7	Proper veterinary facilities should be available for dairy animals at local level	93.83	I
8	Dairy co-operative society gives higher price than local vendors	75.16	XXII
9	Total quantity of produced milk is compulsory to sale out to dairy co-operative society	90.33	IV
10	Pregnant animals don't require special care during pregnancy	83.16	X
11	Burdizzo castration is the simplest method of castrating of new born animals	71.66	XXVII
12	Branding is one of the important method for identification of dairy animals	77.00	XIX
13	Dairy animals should be vaccinated round the year for securing to diseases and good health	91.50	II
14	Initial cost of dairy is higher than cost of after establishment	79.00	XIII
15	Without loaning facility dairy farming is not possible to start	65.66	XXIX
16	Dehorned dairy animal is not liked by the farm women.	77.83	XVIII
17	Dairy animals need not to be regularly washed and cleaned for good health	81.33	XI
18	In the dairy animals, concentrate feed and green fodder should be given in a balance ratio to protect from diseases and physiological disorders/nutrient deficiency	85.83	VII
19	Dairy farming is an occupation of poor farm women for livelihood	86.83	V
20	Dairy farming creates additional employment for farm women	79.16	XII
21	Dairy farming is not economically useful for farm women	78.83	XIV
22	Dairy farming is a complex and high cost bearing practice	62.66	XXXII
23	Dairy farming improves the living standard of the farm women	75.66	XXI
24	For breed improvement, A.I. practice is easy and important than natural breeding	74.66	XXIII
25	The cross breed heifer conceives at later age in comparison to deshi heifer	86.00	VI
26	Cost of milk production per litre is higher in exotic breeds of cattle	73.50	XXV
27	The milk of deshi cattle contains higher fat than exotic breed	78.50	XVI
28	Milk of deshi cattle is more tasty as compared to the milk of cross breed cattle	71.83	XXVI
29	Higher educated farm women never takes interest to establish dairying	74.33	XXIV
30	There is favouritism and nepotism in selection of members in dairy co-operative society	78.66	XV
31	There is no provision of training for farm women of dairy co-operative society	67.33	XXVIII
32	There is cheating in weighing and payment of the milk at dairy booths	63.00	XXXI

“salt/mineral mixture is important for improving the health of dairy animals” (64.00 MPS), “there is cheating in weighing and payment of the milk at dairy booths” (63.00 MPS) and “dairy farming is a complex and high cost bearing practice” (62.66 MPS) of dairy husbandry practices which were ranked XXVI, XXVII, XXVIII, XXIX, XXX, XXXI and XXXII, respectively.

It may be concluded from the findings that the dairy farm women were having highest attitude about “proper veterinary facilities should be available for dairy animals at local level” and “dairy animals should be vaccinated round the year for securing to diseases and good health” where as lowest attitude was observed about “dairy farming is a complex and high cost bearing practice” among all statements of attitude.

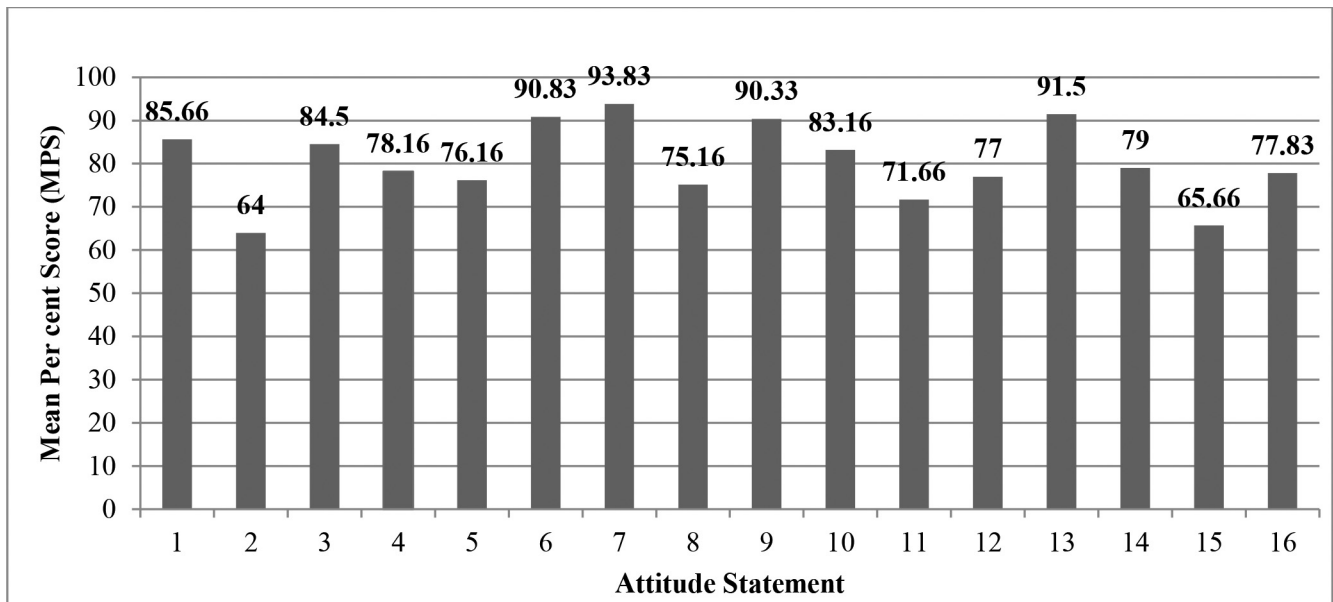


Fig. 2(a) Statement wise attitude of farm women towards improved dairy husbandry practices

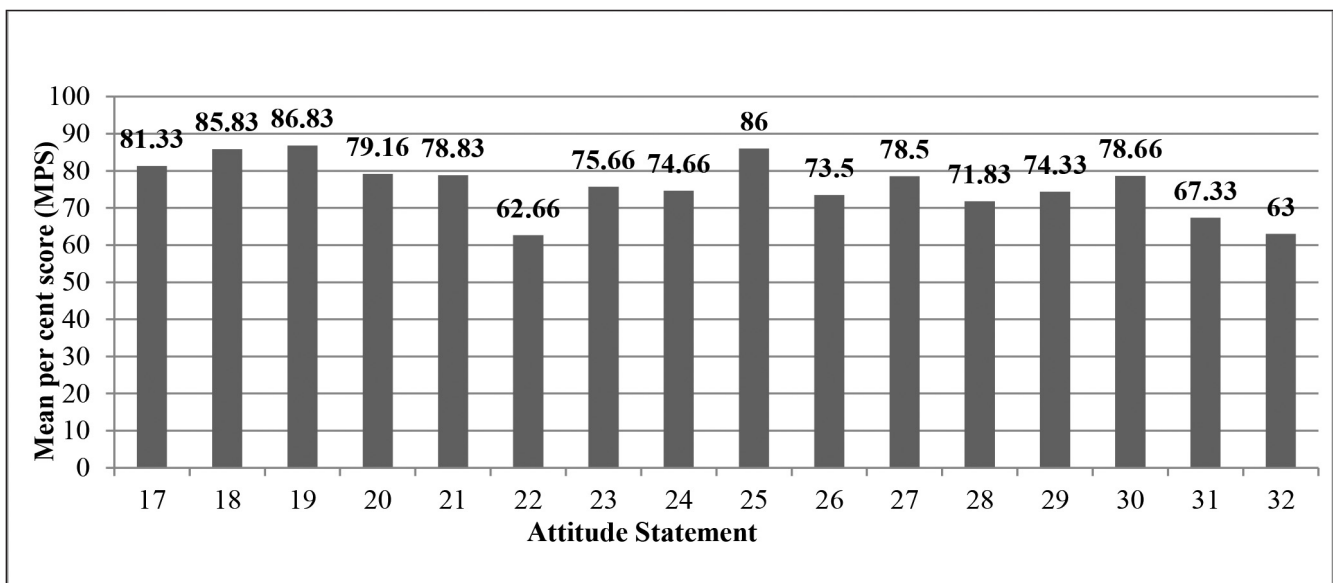


Fig. 2(b) Statement wise attitude of farm women towards improved dairy husbandry practices

Association between selected independent variables with attitude of farm women towards improved dairy husbandry practices

The result pertaining to the relationship between the profile of the farm women and their attitude towards improved dairy husbandry practices presented in Table 3 indicate that education (0.275), herd size (0.432), annual income (0.383), extension contact (0.235) and social participation (0.268) were highly significantly correlated with the attitude of farm women towards improved dairy husbandry practices. So it

can be concluded that education, herd size, annual income, extension contact and social participation highly influenced the attitude of the farm women towards improved dairy husbandry practices. Size of land holding (0.196), DCS's distance (0.188), Dairy experience (0.196) and Training exposure (0.187) were found significantly correlated with the attitude of farm women towards improved dairy husbandry practices. Similar findings was observed by Sharma (2014), Singh *et al.* (2016), Javeed *et al.* (2020), Borade *et al.* (2021) and Parmar *et al.* (2024); Chaudhary *et al.* (2024); Pandey *et*

al. (2024); Chaudhary et al. (2023); Pandey et al. (2023).

Table 3: Association between selected independent variables with attitude of farm women towards improved dairy husbandry practices (n=120)

Sr. No.	Independent variables	Correlation Coefficient (r)
X ₁	Age	0.055 ^{NS}
X ₂	Education	0.275**
X ₃	Size of landing holding	0.196*
X ₄	Herd Size	0.432**
X ₅	Annual income	0.383**
X ₆	Extension contacts	0.235**
X ₇	Social participation	0.268**
X ₈	DCS's distance	0.188*
X ₉	Dairy experience	0.194*
X ₁₀	Training exposure	0.187*

**= Significant at 0.01 level of probability

*= Significant at 0.05 level of probability

NS= Non significant

CONCLUSION

It was concluded from the findings that about three fourth (3/4th) of farm women were found to have favourable attitude towards improved dairy husbandry practices. Where as remaining farm women *i.e.*, about one fourth (1/4th) were having most favourable and least favourable attitude towards improved dairy husbandry practices. Regarding practice wise attitude, 'Proper veterinary facilities should be available for dairy animals at local level' was found the most perceived attitude followed by 'Dairy animals should be vaccinated round the year for securing to diseases and good health' where as the 'Dairy farming is a complex and high-cost bearing practice' was the least perceived attitude by the farm women towards improved dairy husbandry practices. There was a positive and significant relationship between the attitude level of farm women with education, herd size, size of land holding, annual income, extension contacts, social participation, DCS distance, dairying experience and training exposure. In case of age there was a positive and non significant relationship between the attitude level of farm women about improved dairy husbandry practices.

RECOMMENDATIONS

The study indicates that a majority of farm women hold a moderate level of attitude towards improved dairy husbandry practices. Thus, efforts be made to bringing changes in attitude of farm women from low to medium and medium to high level. Efforts may be focus on elevating this attitude to a higher level through intensive training programs, cattle exhibitions, and animal fairs. These efforts

can serve as valuable inputs for policy makers and planners of the Rajasthan Cooperative Dairy Federation (RCDF) to effectively plan and implement improved dairy husbandry practices.

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CONFLICT OF INTEREST

All authors declare that they have no conflict of interest among researcher.

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