Knowledge and Adoption Dynamics of Milk Producers of Udaipur district of Rajasthan

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ABSTRACT

Milk is an important source of animal protein, calcium and riboflavin. The present study was conducted in Udaipur district of Rajasthan. There are total eleven tehsils in Udaipur district, out of which two tehsils namely, Girwa and Salumbar were selected for the present study on the basis of maximum livestock population. Five villages from each tehsil were selected on the basis of maximum number of milk producers. For selection of respondents, 120 milk producers were randomly selected from identified villages (12 from each village) for data collection. The study indicated that majority of respondents (57.50 %) fell in medium level knowledge group while, 22.50 and 20.00 per cent milk producers had low and high level of knowledge about improved practices of milk production. The study revealed that majority of milk producer's possessed maximum knowledge about milking and breeding practices whereas, poor knowledge about housing practices and health care practices. The study indicated that majority of respondents (55.83%) fell in medium level of adoption group while, 24.16 and 20.00 per cent milk producers had high and low level of adoption about improved practices of milk production. The study revealed that majority of milk producers had maximum adoption about breeds and breeding practices whereas, poor adoption about hosing practices and health practices.

***Key words**: Milk, Knowledge; Adoption; Production; Technology;*

Indian economy is mainly based on agriculture as nearly 65 per cent of the country's population is directly or indirectly engaged in it. But agriculture alone is unable to provide necessary employment and income to all the people. Hence, dairying constitutes as important activity of the rural population, mostly as a subsidiary occupation. India has attained the first rank in milk production in the world. Milk production in India is predominantly the domain of small dairy farmers in mixed farming system. Milk forms an important constituent of human diet, so the importance of milk in human diet cannot be under estimated in India. Milk is one of the important sources of animal protein, calcium and riboflavin, as getting an adequate quantity of animal protein, calcium and riboflavin is difficult solely from plant foods.

Rajasthan is the second largest milk producing state among top ten milk producing states in the country with an annual milk production of about 16.93 million tonnes and per capita per day availability of milk has increased from 292 grams in 1991 to 586 grams in 2014-15. Keeping the above considerations in mind, the present study was undertaken to study the knowledge and constraints of milk producers in Udaipur district of Rajasthan'.

METHODOLOGY

The present investigation was conducted in Udaipur district of Rajasthan because of the selected district has highest milk production in Southern Rajasthan. There are total eleven tehsils in Udaipur district, out of which two tehsils namely, Girwa and Salumbar were selected for the present study on the basis of maximum livestock population. Five villages from each tehsil were selected on the basis of maximum number of milk producers. For selection of respondents, 120 milk producers were randomly selected from identified villages (12 from each

village) for data collection. Thus, in all ten villages were selected for the present investigation. A comprehensive list of milk producers was prepared with the help of village patwari, officials of dairy cooperatives and agriculture supervisor of respective villages. Out of the prepared list, 12 farmers were selected from each village on the basis of random sampling technique. Thus, total 120 farmers were selected for present investigation. Data were collected by personnel interview technique through suitable structured schedule. Thereafter, data were tabulated, analyzed and inferences were drawn in light of the objective.

RESULTS AND DISCUSSION

Knowledge of milk producers about improved practices of milk production: It was tried to find out the level of knowledge of milk producers about improved practices of milk production. Knowledge as a body of understood information possessed by an individual is one of the important components of behavioural aspect and plays important role in the adoption of an innovation. On this ground, it was realized imperative to examine the extent of knowledge of milk producers about improved practices of milk production. The results are presented in subsequent tables.

Distribution of respondents according to their knowledge about improved practices of milk production : To get an overview of the knowledge level, the respondents were categorized in to low, medium and high level knowledge group on the basis of calculated mean score of the knowledge score obtained by the respondents.

Table 1: Distribution of respondents on the basis of their level of knowledge about milk production (N=120)

Category	Girwa		Salumbar		Total	
	No.	%	No.	%	No.	%
Low (< 27)	12	20.00	15	25.00	27	22.50
Medium (27-58)	35	58.33	34	56.67	69	57.50
High (> 58)	13	21.67	11	18.33	24	20.00
Total	60	100	60	100	120	100

Table 1 reveals that out of 120 respondents, majority of respondents (57.50 %) fell in medium level knowledge group whereas, 22.50 per cent milk producers were observed in the low level knowledge group and remaining 20.00 per cent respondents possessed high level of knowledge about improved practices of milk production.

Analysis of table 1 further reveals that 20.00 and 25.00 per cent respondents were observed in low level knowledge group in Girwa and Salumbar tehsils, respectively. While, 58.33 and 56.67 per cent respondents were observed in medium knowledge level group in Girwa and Salumbar tehsils, respectively. About 21.67 and 20.00 per cent respondents were observed in high level knowledge group in Girwa and Salumbar tehsils, respectively.

Aspect wise extent of knowledge of milk producers: Individual aspect wise knowledge of milk producers was also worked out for drawing a picture about the areas of training where milk producers had good knowledge and where they are lacking, so that aspects with low knowledge can be given more importance in future.

Table 2: Aspects wise knowledge of milk producers

Aspects	Respondents	
	MPS	Rank
Housing practices	41.75	IV
Breeding practices	45.66	II
Feeding practices	41.80	III
Milking practices	55.71	I
Health Care practices	35.79	V
Average	44.14	

MPS = Mean per cent score

From the data incorporated in Table 2, it is clearly evident that most of the milk producers strongly agreed to have high knowledge about milking practices with MPS 55.71 and ranked first. Further analysis of table clearly indicates that breeding practices was positively considered by milk producers with MPS 45.66 and was ranked second.

Table 2 further shows that feeding practices was considered by milk producers with MPS 41.80 and ranked third. Likewise, milk producers strongly knew housing practices with MPS 41.75 and ranked fourth. Further analysis of table shows that the milk producers had knowledge about health care practices with MPS 35.79 and ranked fifth.

Comparison of knowledge of milk producers about improved milk production technology : In order to find out the significance of difference between the milk producers of selected tehsils with respect to the knowledge possessed by them, 'Z' test was applied. For this purpose, the following null hypotheses were tested and results of which are presented in Table 3.

There is no significant difference between the milk producers of two selected tehsils with respect to knowledge of improved milk production technology.

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Table 3: Comparison of knowledge between milk producers of selected tehsils

Category of sample	Mean	S.D.	'Z' value
From Girwa Tehsil	44.85	15.91	1.26^{NS}
From Salumbar tehsil	41.18	15.90	

NS - Non-significant

Table 3 shows that the calculated value of 'Z' (1.26) was less than its tabulated value at 5 per cent level of significance. Thus, null hypothesis (NH_{01}) was accepted and research hypothesis is rejected. So we conclude that there was no significant difference between the milk producers of two selected tehsils with respect to the knowledge about improved milk production technology.

Adoption of improved practices in production of milk: Keeping this view in mind, an effort has been made to find out the extent of adoption of improved practices in production of milk by the milk producers.

Distribution of respondents according to their adoption level of improved practices in production of milk: To get an overview of adoption level, the respondents were divided into three groups viz., low level of adoption (<16.55), medium level of adoption (16.55 to 41.64) and high level of adoption (>41.64). The groups were formulated on the basis of calculated mean and standard deviation of the adoption scores obtained by the respondents. The results are presented in the Table 4.

Table 4: Distribution of respondents according to their adoption level of improved practices in production of milk (N=120)

Adoption Level	Girwa		Salumbar		Total	
	No.	%	No.	%	No.	%
Low (<16.55)	11	18.33	13	21.67	24	20.00
Medium (16.55 to 41.64)	32	53.34	35	58.33	67	55.83
High (>41.64)	17	28.33	12	20.00	29	24.17
Total	60	100	60	100	120	100

The data in Table 4 reveals that out of 120 respondents, majority of respondents (55.83%) fell in medium level of adoption group whereas, 24.17 per cent milk producers were observed in the high level adoption group and remaining 20.00 per cent respondents had possessed low level adoption about improved practices of milk production.

Analysis of table 4 further reveals that 18.33 and 21.67 per cent respondents were observed in low adoption group in Girwa and Salumbar tehsils, respectively. While, 53.34 and 58.33 per cent respondents were observed in medium level adoption group in Girwa and Salumbar tehsils, respectively. About 28.33 and 20.00 per cent respondents were observed in high level adoption group in Girwa and Salumbar tehsils, respectively.

Aspect-wise extent of adoption of improved practices in production of milk: Adoption of milk production technology was assessed under five major aspects of improved practices of milk production. The results have been presented in Table 5.

Table 5 vividly depicts that extent of adoption about breeds and breeding practices was highest with MPS 48.19 and ranked first by the milk producers followed by the feeding practice with MPS 44.02 and was ranked second by the milk producers. The adoption level about milking practice was moderate with MPS 42.79 and ranked third by milk producers. The extent of adoption about housing practices was poor with MPS 34.51 and was ranked fourth by the milk producers. Further table reveals that adoption level of the respondents regarding health care practices was the poorest with MPS 32.50 and was ranked fifth by the milk producers.

Table 5: Aspects wise adoption of improved practices in production of milk

Aspects	Respondents	
	MPS	Rank
Hosing practices	34.51	IV
Breeds and breeding practices	48.19	I
Feeding practices	44.02	II
Milking practices	42.79	III
Health care practices	32.50	V
Average	40.40	

Comparison of adoption of improved milk production technology between the milk producers of selected tehsils: Further, in order to find out the significance of difference between the milk producers of selected tehsils with respect to the adoption possessed by them, 'Z' test was applied. For this purpose, the following hypotheses was tested and results of which are presented in Table 6.

There is no significant difference between the milk producers of two selected tehsils with respect to adoption of improved milk production technology. There is significant difference between the milk producers of two selected tehsils with respect to adoption of improved milk production technology.

Table 6: Comparison of adoption of improved milk production technology between the milk producers of selected tehsils:

Category of sample	Mean	S.D.	'Z' value
Girwa tehsil	28.92	11.58	0.14 NS
Salumbar tehsil	29.22	11.90	

NS - Non-significant

Table 6 shows that the calculated value of 'Z' (0.14) was less than its tabulated value at 5 per cent level of significance. Thus, null hypothesis (NH_{02}) was accepted and research hypothesis was rejected. Therefore, we conclude that there was no significant difference between the milk producers of two selected tehsils with respect to the adoption of improved milk production technology.

CONCLUSION

The study indicated that majority of respondents (57.50 %) fell in medium level knowledge group while, 22.50 and 20.00 per cent milk producers had low and high level of knowledge about improved practices of milk production. The study revealed that majority of milk producer's possessed maximum knowledge about milking and breeding practices whereas, poor knowledge about housing practices and health care practices. The study indicated that majority of respondents (55.83%) fell in medium level of adoption group while, 24.16 and 20.00 per cent milk producers had high and low level of adoption about improved practices of milk production. The study revealed that majority of milk producers had maximum adoption about breeds and breeding practices whereas, poor adoption about hosing practices and health practices.

REFERENCES

Dhayal, B.L., Meena, J.P., Patel, M.L. and Mehta, B.M. 2015. A study on knowledge and adoption level of improved animal husbandry practices by milk producer in Vadodara district of Gujarat. *Agriculture Update* **10** (2): 144-148.

Ghosh, R.K., Goswami, A. and Maitra, N.J. 2008. Adoption behaviour of the dairy farmers in cooperative farming system. *Indian Research Journal of Extension Education* **8**(1): 31-35.

Gour, S., Mandal, M.K. and Singh, R. 2015. Assessing knowledge of tribal farmers regarding scientific animal husbandry practices. *Indian Research Journal of Extension Education* **15** (2): 91-94.

Halakatti, S.V., Kamaraddi, V. and Gowda D.S.M. 2007. Determinants of adoption of dairy farming technologies by rural women under SGSY scheme. *Karnataka Journal of Agricultural Sciences* **20** (2): 323-325.

Mande, J.V., Rajput, R.D. and Thombare, B.M. 2008. Knowledge of cattle owners about improved cattle rearing practices. *Journal of Dairying, Foods & Home Sciences* **27** (1): 38–42.

Mohi, A.M. and Bhatti, J.S. 2006. Adoption of improved dairy farming practices by members of Punjab Dairy Farmers Association. *Journal of Dairying, Foods & Home Sciences* **25** (1): 55-58.

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