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## Association between knowledge level of women respondents about improved cattle management practices in arid region of Rajasthan

**Suman Sharma, JP Lakhera, LS Bareth, Manmeet Kaur and Nemi Chand Meena**

### Abstract

The present study was conducted in the Bikaner district of Rajasthan, India to find out the association between knowledge level of women respondents about improved cattle management practices. A list of women engaged in cattle management practices was procured from Uttari Rajasthan Sakhari Dugdh Utpadak Sangh Limited (URMUL). The respondents were selected by using proportionate random sampling procedure from 18 dairy co-operative societies of 6 selected milk procurement routes. Therefore, a total number of 120 women respondents of dairy co-operative societies were drawn for the present investigation. Data were collected with the help of pre-tested semi-structured interview schedule. The findings of the study revealed that significant association was found between age, caste, education, size of land holding, family type and family size with knowledge level of respondents.

**Keywords:** Animal husbandry, knowledge, dairy cooperative societies, URMUL

### Introduction

Contribution of farm women in agriculture is likely to be around fifty to sixty %. Women play an important role in animal husbandry activities as manager, decision makers and skilled workers. Most of the work involving livestock management is considered as the traditional responsibility of women. The feeding, cleaning and milking of dairy animals, the care of young animals, and administration of medicines are done mostly by women. Under such conditions, dairying constitutes an important activity of the rural population, mostly a subsidiary occupation. Women are the prime decision makers in dairy production activities such as utilization of milk, care of pregnant animals and calves, brining of fodder and feeding of concentrate. In Rajasthan, agricultural and livestock management operations are generally performed by farm women. She cleans the animals and animal shed, arranges feed and water for them. Dairying has become an important secondary source of income for millions of rural families and has assured the most important role in providing employment and income generating opportunities particularly for women farmers. Rajasthan has about 6.09 % of country's cattle population and contributes over 10 % of total milk production. India ranks world's first milk producer country with annual milk production of 132.43 million tonnes during 2012-13 (Anonymous, 2012-13) <sup>[1]</sup>. Women accounted for 93 % of total employment in dairy production in India. It is established beyond doubt that women always participated in dairy and animal husbandry activities in addition to their daily household chores (Belurkar *et al.* 2003) <sup>[3]</sup>. Therefore, the present study was conducted to find out the association between knowledge level of improved cattle management practices in dairy cooperative societies among women farmers in arid region.

### Materials and Methods

The present study was undertaken in Bikaner district of Rajasthan. The investigation was concerned with URMUL dairy which is the largest milk collecting union in arid region in north Rajasthan. The head office of URMUL is situated at Bikaner. URMUL Bikaner stands sixth in Rajasthan terms of milk collecting union. The URMUL is consist of six milk units (Bikaner, Loonkaransar, Chattergarh, Khajuwala, Dungargarh and Bajju). Each milk unit consists of 5 to 12 milk collection routes. All the six milk units selected for the study. From each milk unit one milk collection route was selected randomly. This way six milk collection routes were selected for the proposed study. Each milk route consists 15 to 37 dairy cooperative societies, out of them three dairy cooperative societies were selected randomly

from each route and this way 18 dairy cooperatives societies were selected for the study. For selection of the respondents, proportionate random sampling procedure was adopted to make a sample size of 120 respondents. To measure various aspects of the research study, an interview schedule was developed. On the basis of objective formed for the study, a suitable tool was developed. The data were collected through personal interview method. In order to test the validity of results, various hypotheses were formulated and appropriate statistical tests were applied. The statistical test applied was chi-square.

### Results and Discussion

In order to ascertain the association between selected personal characteristics of respondents with level of knowledge about improved cattle management practices a "Chi-square" test was applied. Association between personal attributes and level of knowledge of respondents about improved cattle management practices are presented in Table I.

**Association between age and knowledge:** The calculated chi-square value was 13.88, which was significantly associated with the knowledge level of respondents about improved cattle management practices at 1 per cent level of significance. Thus, the null hypothesis ( $H_0$ ) was rejected and alternative hypothesis was accepted. It means age of respondents exerted a highly significant effect on the knowledge level.

Findings are in the conformity with the findings of Singh *et al.* (2003) [6] who reported a significant association between age and knowledge level of farmers regarding about improved animal husbandry practices.

**Association between caste and knowledge:** The data incorporated in Table one showed that the calculated value of chi-square was 19.50 for overall respondents, which was significantly associated with the knowledge level of respondents about improved cattle management practices at 1 per cent level of significance. Thus, the null hypothesis ( $H_0$ ) was rejected and alternative hypothesis was accepted. It means caste of respondents exerted a significant effect on the knowledge level.

**Association between education and Knowledge:** The data incorporated in Table I showed that the calculated value of chi-square was 14.95 for overall respondents, which was found to be significantly associated with the knowledge of respondents about improved cattle management practices at 1 per cent level of significance, thus the null hypothesis ( $H_0$ ) was rejected and alternative hypothesis was accepted. It means educational level of respondents had highly significant effect on the knowledge level of respondents, the findings of the study in line with the findings of Marwale *et al.* (1995) [4] who reported a significant association between education and knowledge level of farmers about improved animal husbandry practices.

**Table I:** Association between Personal Attribute and Knowledge Level of Respondents about Improved Cattle Management Practices

S. No.	Personal attributes	Knowledge level (n=120)			Total	X <sup>2</sup> & 'C' value
		Low (below 22)	Medium (23-47)	high (above 47)		
<b>1</b>	<b>Age group</b>					
(i)	Young (below 30 years)	10	15	04	29	13.88**
(ii)	Middle (30 to 50 years)	09	36	22	67	(0.32)
(iii)	Old (above 50 years)	11	07	06	24	
<b>2</b>	<b>Caste</b>					
(i)	General	06	17	16	39	19.50**
(ii)	OBC	18	17	14	49	(0.37)
(iii)	SC/ST	06	24	02	32	
<b>3</b>	<b>Education</b>					
(i)	Illiterate	03	21	13	37	14.95**
(ii)	Primary	10	08	03	21	(0.33)
(iii)	Middle class	14	18	13	45	
(iv)	High & 10+2 and Graduate and above	03	11	03	17	
<b>4</b>	<b>Size of land holding</b>					
(i)	Landless	01	11	03	15	11.87*
(ii)	Marginal (below 1 ha)	12	09	06	27	(0.30)
(iii)	Small (1-2 ha)	04	19	11	34	
(iv)	Medium (2-4 ha)	06	08	05	19	
(v)	Large (> 4 ha)	07	11	07	25	
<b>5</b>	<b>Family type</b>					
(i)	Nuclear family	04	25	08	37	08.91**
(ii)	Joint family	26	33	24	83	(0.26)
<b>6</b>	<b>Family size</b>					
(i)	Small (upto 5 member)	04	30	09	43	13.80**
(ii)	Large (above 5 member)	26	28	23	77	(0.32)
	Overall	30			120	

\*and\*\* significant at 5 and 1% level of significance, respectively

**Association between Size of land holding and Knowledge:** The study revealed that calculated value of chi-square was 11.87 for overall respondents, which was significantly associated with the knowledge of respondents about improved cattle management practices at 1 per cent level of significance, thus the null hypothesis ( $H_0$ ) was rejected and alternative hypothesis was accepted. It means size of land holding of

respondent's effects significantly the knowledge level of respondents.

Findings of the study are in the conformity with the findings of Sharma (1996) [5] who reported a significant association between size of land holding and knowledge level of farmers about improved animal husbandry practices.

**Association between family type and Knowledge:** The data incorporated in Table one revealed that calculated value of chi-square was 8.91, which was significantly associated with the knowledge of respondents about improved cattle management practices at 1 per cent level of significance, thus the null hypothesis ( $H_0$ ) was rejected and alternative hypothesis was accepted. It means type of family respondents had significantly effect on the knowledge level of respondents. Findings of the study are in the conformity with the findings of Sohi and Kherde (1980) [7], they reported a significant association between family type and knowledge level of farmers about improved animal husbandry practices.

**Association between Family size and Knowledge:** The calculated value of chi-square was 13.80, which were significant at 1 per cent level of significance, thus the null hypothesis ( $H_0$ ) was rejected and alternative hypothesis was accepted. It means family size of respondents effects significantly the knowledge level of respondents. Findings of the study are in the conformity with the findings of Sharma (1996) [5] who reported an significant association between family size and knowledge level of farmers about improved animal husbandry practices.

### Conclusion

There was significant association between different variable viz., age, education, size of land holding, family type and family size with knowledge level of cattle management practices.

The respondents had medium knowledge about improved cattle management practices. So, the extension activities like training, method demonstration, educational tours etc. should be organized frequently for the members of the dairy cooperative societies.

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