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Socioeconomic Variables and Knowledge level of Dairy Farmers: A Relationship Study

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ABSTRACT

The present study was carried out to assess the socioeconomic status of dairy farmers of West Bengal and the relationship between the socioeconomic variables and the knowledge level. This study was conducted in 8 villages from 4 blocks of West Bengal by personally interviewing 120 dairy farmers. Statistical test such as Pearson's coefficient of correlation was used to find the correlation between the variables. The study of the relationship between socioeconomic variables of the respondents showed that variables like experience (0.251), herd size (0.228), landholding (0.187) and annual income (0.193) were significantly and positively correlated with the knowledge level. Whereas, variables like age (0.053), education (0.170), occupation (0.092) and extension contact (0.041) were found to be positive but non-significantly co-related to the training needs while the mass media exposure (-0.026) was found to be negatively and non-significantly co-related to the knowledge level of dairy farmers.

Keywords: Knowledge level, Dairy, Socioeconomic status, Relationship, Experience.

INTRODUCTION

The dairying sector contributes significantly in generating employment opportunities and supplementing the income of small and marginal farmers and landless laborers of rural India, besides providing food security. In India milk production continues to be a small farm activity. Most of our rural milk producers are small marginal farmers and landless laboures and many of them are women. They have one or two heads of milch animals. The milch animals are fed with agricultural wastes and crop residues despite its subsistent nature. India has emerged as the largest producer of milk in the world, surpassing the US and the European countries. Our rural milk producers have transformed dairying in India. They have proved that the given command over the resources they create, they can and will produce miracles (Vinay et al., 2004).

India is predominantly an agrarian economy with more than 75 per cent of the population in villages, depending on agriculture, animal husbandry and allied activities for their livelihood. Among many livestock enterprises, dairying is the most ancient occupation established in the rural setting of our country. The dairy sector contributes significantly in generating employment opportunities and supplementing the income of small and marginal farmers and landless labourers of rural India, besides providing food security (Kadirvel, 2002). In India, dairying is recognized as an instrument for social and economic growth. Dairy sector plays a significant role in supplementing family income and generating gainful employment in the rural areas besides providing economical nutritional food to millions of people. The growth of dairy sector during the last three decades has been notable. The dairy industry is crucial importance to India. It generates regular income not only to the rural but also in the urban and semi-urban population, especially to womenfolk by providing self-employment opportunity and thereby improving their life. In a tropical country like India, agriculture may fail sometimes, due to monsoon failure, but dairying never fails and it gives regular and steady income (Suresh, 2010). Keeping the above problem in view, the present study was taken up to assess the socioeconomic status of dairy farmers of West Bengal and finding the correlation between socioeconomic variables with the knowledge level of dairy farmers.

MATERIALS AND METHODS

For the present study, two villages have been chosen from each block, i.e. Ranaghat 1, Chakdah, Gaighata and Swarupnagar by random sampling method. So total of eight villages have been selected for the study. From each village fifteen farmers has been selected randomly. Thus a total of 120 farmers from the study area has been selected as respondents. The farmers who have engaged in dairying since last 5 years and having at least few animals are in milk were selected from each village. Data on different socioeconomic aspects were collected by semi structured interview schedule. Frequency and percentage were used for the statistical assessment of the socioeconomic status of the dairy farmers. Statistical test such as Pearson's coefficient of correlation was used to find the correlation between the variables.

RESULTS AND DISCUSSION

The findings of the study are presented in the Table 1 and 2.

Table 1: Socioeconomic profile of the respondents

Variables	Categories	Frequency	Percentage (%)
Age (in years)	Young	14	11.66
	Middle	93	77.50
	Old	13	13.84
Education	Illiterate	38	31.66
	Primary	42	35.00
	Upper primary	26	21.66
	Matriculation	13	10.84
	Higher secondary	1	0.84
	Graduation and above	0	0.00
Experience (in years)	Low	15	12.50
	Medium	93	77.50
	High	12	10.00
Occupation	Milkman	8	6.67
	Electrician	2	1.67
	Labour	17	14.17
	Farming	87	72.50
	Driver	3	2.50

	Service	1	0.83
	Business	1	0.83
	Tailor	1	0.83
Land Holding (in acre)	Small	37	30.83
	Medium	68	56.67
	Large	15	12.50
Herd Size	Small	42	35.00
	Medium	57	47.50
	Large	21	17.50
Annual Income (in rupees per annum)	Low	54	45.00
	Medium	53	44.16
	High	13	10.84
Extension Contact	Low	31	25.84
	Medium	88	73.33
	High	1	0.83
Mass Media Exposure	Low	15	12.50
	Medium	67	55.83
	High	38	31.67

Table 1 shows that the majority (77.50%) of the respondents belonged to middle age group. This indicates active workforce was more in the study area which could help to enhance the overall agricultural and dairy production. 31.66 percent of the respondents were illiterate, 35.00 percent studied up to primary level, 21.66 percent studied up to upper primary level, 10.84 percent were educated up to secondary level, 0.84 percent studied up to higher secondary level and not even a single respondent studied up to graduation level and above. As around 70 percent respondents were educated, this makes easier to disseminate information regarding clean milk production. Moreover, for 31.66 percent of the respondents who were illiterate, multimedia mode of information delivery mechanism is an effective method to disseminate information pertaining to clean milk production. Patel (2005) concluded that 38.00 percent of the respondents were illiterate followed by 34.00 percent of them had education up to primary level, 15.00 percent had up to secondary level and 13.00 percent had up to higher secondary level. Most of the respondents (77.50%) had a medium level of experience. Most of the respondents falling under the medium level of experience, this indicates, they were having higher indigenous knowledge and work experience, but most of them were lacking in scientific dairy farming practices.

The study showed that the majority of the respondents (72.50%) were engaged in farming followed by (14.17%) work as a labour 6.67 percent of the respondents were milkmen and 1.67 percent was an electrician and only 0.83 percent was serviceman, businessman and tailor. This suggested that respondents from different social class have been selected for the study. Most of the respondents (56.67%) had medium size of land holding. The land holding was very low in the study area which restricted the farmers to equip their farms with modern tools and technologies. Most of the respondents (47.50%) had medium size of herd size (3-6) followed by 35.00 percent of small livestock holders who was having less than 3 animals and 17.50 percent large livestock holders who were having herd size more than 6. Respondents were not having very large livestock holding in the study area.

Table 1 indicated that the majority (45.00%) of the respondents came under a lower category of income group (less than Rs.59000) followed by a medium income group (Rs.59000- 77000) and a high income group (more than Rs.73000) category which accounted for 44.16 percent and 10.84 percent of the respondents, respectively. The respondents were not having high annual income which restricted them to expand their farm size as well as adapting costly

innovations/technologies for enhancing farm income. It suggested that cost effective, simple technologies can be effective for the respondents and small intervention like 'Clean Milk Production' can effectively ensure quality produce at the farmer's household level. 73.33 percent of the respondents were having medium extension contact whereas 0.83 percent were having high extension contact followed by low extension contact, which accounted for 25.84 percent of the respondents. Most of the respondents were having medium to low level of extension contact. This scenario can be observed in major parts of the country as the ratio of extension agent and farmer population is decreasing. In this circumstance, tools like multimedia can be effective to increase the extension contact at field level. The majority (55.83%) of the respondents was having a medium level of mass media exposure, whereas 31.67 percent were having high level of exposure followed by a low level of exposure, which accounted for 12.50 percent of the respondents. Large number of respondents were having medium to high level of mass media exposure. It is natural as extension contact is low farmers were mostly relying on mass media like TV, Radio, newspaper, etc. to update their knowledge about dairy farming in particular and agriculture as a whole.

Table 2: Relationship between socioeconomic characteristics and knowledge level

S. No.	Independent variable	'r' value
1	Age	.053^{NS}
2	Education	.170^{NS}
3	Experience in dairying	.251**
4	Occupation	.092^{NS}
5	Land holding	.187*
6	Herd size	.228*
7	Annual income	.193*
8	Extension contact	.041^{NS}
9	Mass media exposure	-.026^{NS}

NS - Non Significant
* Significant at 0.05 level of probability
** Significant at 0.01 level of probability

A perusal of Table 2 indicated that age and education of the respondent were found to be positive, but non-significantly co-related to the knowledge level of dairy farmers. It was noticed that, there is positive and significant relationship between experience and knowledge level of the dairy farmers. Farmers used to get knowledge on clean milk production on the basis of experience not on the basis of their education background. Occupation and extension contact was not found to be significantly related with the knowledge level of dairy farmers. It was observed that, there is negative and non-significant relationship between mass media exposure and knowledge level of the dairy farmers. Land holding, Herd size and Annual income were found to have a positive and significant relationship with the knowledge level of dairy farmers. This might be due to, increases in land holding, herd size and annual income leads to have the ability to involve in scientific dairy farming and adopt clean milk production practices. These findings are in line with those of Ingole (1990) and Gaikwad (2003).

CONCLUSION

The majority of the respondents belonged to middle age group. Most of the respondents had a medium level of experience. The majority of the respondents came under a lower category

of income group. The majority of the respondents were having a medium level of mass media exposure. The study of the relationship between socioeconomic variables of the respondents showed that variables like experience, herd size, land holding and annual income were significantly and positively co-related with the knowledge level. Whereas, variables like age, education, occupation and extension contact were found to be positive, but non-significantly co-related with the training needs while, the mass media exposure was found to be negatively and non-significantly co-related to the knowledge level of dairy farmers.

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