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Socio-economic profile of dairy farmers of Nanded district of Maharashtra and constraints confronted by them in animal husbandry practices

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ABSTRACT

The present study was undertaken in Nanded district of Maharashtra with a sample size of 120 dairy farmers from three blocks. Two villages from each block and 20 respondents (who had at least two milch animals at the time of study) from each village were selected randomly. Statistical measures used were mean, standard deviation, frequency, percentage, cumulative square root frequency (CSRT) and Garrett ranking technique. Garrett ranking method was used for ranking of the constraints in adoption of recommended dairy farming practices. Majority (60.83%) of the respondents belonged to the middle age group (35 to 50 years); 35.83 per cent were illiterate and 60.00 per cent belonged to medium family size category (5 to 7 members). Majority (83.37%) of the dairy farmers perceived that the high cost of medicines was the major constraint and non-availability of veterinary staff (67.79%) and veterinary medicines (65.42%) were the second and third major constraints.

Keywords: Dairy farmers; extension contact; social participation; Garrett ranking; constraints

INTRODUCTION

Dairy farming is an important enterprise and means of poverty alleviation. It provides nutritional security, income and self-employment to the vast majority of rural masses and thereby uplifts the socio-economic status of rural people. Per capita availability of milk in India is 337 gram/day as compared to the average world per capita availability of 229 gram/day (Anon 2017). This represents sustained growth in the availability of milk and milk products for our growing population. India possesses enormous bovine wealth but their per capita production is one of the lowest in the world due to various reasons. Indian dairy industry is in the hands of small landholders and the bulk of milk production in our country is handled by major portion of small milk producers who are less educated and ignorant of economic aspect of milk production. There might be problems of availability and access to veterinary services, constraints in the marketing of milk, non-availability of improved breeds and unaffordable cost of advanced equipment like milking machines or lack of knowledge in handling the advanced equipment. Keeping this in view the present study was conducted to access the socio-economic profile and constraints faced by dairy farmers related to animal husbandry practices in Nanded district of Maharashtra.

METHODOLOGY

The study was undertaken in Nanded district of Maharashtra during 2015-2016. Out of sixteen blocks three namely Biloli, Degloor and Mukhed were randomly selected and from each selected block two villages were selected randomly. From each village 20 respondents were selected who had at least two milch animals at the time of study making a sample size of total 120 respondents. An interview schedule was developed and before starting the final data collection the entire schedule was pre-tested in non-sampling area for elimination, alteration and modification. The respondents were interviewed individually at their homes and at farm level about socio-economic status, social participation of the respondents as well as the constraints faced by the farmers in maintaining health of dairy animals. Statistical measures used were mean, standard deviation, frequency, percentage, cumulative square root frequency (CSRT) and Garrett ranking

technique. For the purpose of identifying the constraints semi-structured interview schedule was developed. The top-most frequent constraints were selected for the purpose of their prioritization by means of using Garrett ranking technique as suggested by Garrett (1979) as follows:

$$\text{Per cent position} = 100\,(R \times 0.5) \div N$$

where R= Rank of the individual item in the series, N= The number of individual items ranked

RESULTS and DISCUSSION

Socio-personal and economic profile of dairy farmers

Data given in Table 1 indicate that majority (60.83%) of the respondents belonged to the middle age group (35 to 50 years) followed by 30.83 per cent to young and 8.33 per cent to old age categories. On the whole the average age of the respondents was 41.22 years. Similar findings were reported by Mande and Thombre (2009) and Manjusha et al (2015). The probable reason might be that the middle-aged persons are more engaged in the productive activities. Formal education refines a person and enlightens him with knowledge, understanding, skill and ability to use all these efficiently under practical conditions for overall development. It was found that 35.83 per cent of the respondents were illiterate followed by 19.16 per cent who were educated up to secondary level. These findings are in consonance with those of Sabapara et al (2014). Majority (60.00%) of the dairy farmers had medium family size (5 to 7 members) followed by 33.33 per cent who had small family size (<5 members). Family size influences various activities in terms of family labour availability, per capita milk consumption, annual income of family, etc. Majority (57.50 %) of the dairy farmers had joint families.

Table 2 depicts that majority (84.20%) of the respondents had agriculture as their main source of livelihood while only 12.50 per cent were involved in dairy husbandry as their major occupation. These findings are in line with the findings of Kishore et al (2013) and Manjusha et al (2015). Majority (57.50%) of the farmers had small landholdings. Majority of the farmers depended on agriculture as their main source of livelihood and also maintained livestock especially buffaloes. Majority (70.00%) of respondents had low (up to Rs 155000) annual income. Majority (69.16%) of the dairy farmers

Table 1. Socio-personal profile of dairy farmers (n= 120)

Variable	Respondents		Mean	SD
	Frequency	Percentage		
Age (years)			41.22	8.36
Young (up to 35)	37	30.83		
Medium (35-50)	73	60.83		
Old (>50)	10	8.33		
Education			2.75	1.95
Illiterate	43	35.83		
Functionally literate	11	09.16		
Primary	16	13.33		
Middle	14	11.66		
Secondary	23	19.16		
Higher secondary (up to 12th)	06	05.00		
Graduate and above	07	5.83		
Family size (number of members)			5.55	2.19
Small (up to 5)	40	33.33		
Medium (5-7)	72	60.00		
Big (>7)	08	6.66		
Family type			1.57	0.49
Nuclear	51	42.50		
Joint	69	57.50		

Table 2. Socio-economic profile of dairy farmers (n= 120)

Variable	Respondents		Mean	SD
	Frequency	Percentage		
Occupation				
Agriculture	101	84.20	0.36	1.15
Dairying	15	12.50	0.36	1.84
Business + labour	04	3.50	0.62	0.10
Landholding (ha)			3.05	0.89
Landless (0)	01	0.80		
Marginal (<1)	27	22.50		
Small (1-2)	69	57.50		
Semi-medium (2-4)	14	11.67		
Medium (4-10)	06	5.00		
Large (>10)	03	2.50		
Total annual income (Rs)				
Low (<155000)	84	70.00		
Medium (155000-265000)	22	18.33		
High (>265000)	14	11.66		
Herd size (number of heads)			10.24	9.62
Small (<10)	83	69.16		
Medium (10 to 12)	17	14.16		
Large (>12)	20	16.66		
Milk production (litres/day/household)			16.23	19.86
Low (<25)	95	79.16		
Medium (25-27)	06	5.00		
High (>27)	19	15.83		
Milk consumption (litres/day/household)			1.96	0.80
Low (<2)	31	25.83		
Medium (2 to 3)	70	58.33		
High (>3)	19	15.83		
Milk sale (litres/day/household)			14.26	19.28
Low (<24)	100	83.34		
Medium (24-26)	04	3.33		
High (>26)	16	13.30		
Milk disposal pattern			3.04	1.01
Cooperatives	19	15.83		
Middlemen	02	1.66		
Directly to consumers	54	45.00		
Hotels or sweetmakers	45	37.50		

belonged to low herd size (less than 10 heads). Similar findings were reported by Thombre et al (2012). It shows that dairy animals were managed by the small and marginal farmers in the study area. Majority (79.16%) of the dairy farmers herd fell in low (<25 litres) category of milk production, (58.33%) of the farmers were in medium (2 to 3 litres/day/ household) category of milk consumption and (83.34%) of the dairy farmers belonged to low (<24 litres/day/household) category of milk sale. Forty five per cent of the farmers were selling milk directly to consumers.

Data given in Table 3 depict that majority (67.50%) of the dairy farmers had medium level of mass media exposure and 57.50 per cent had medium level of extension contact. Majority (83.33%) of the respondents had low category of social participation (<1). Adequate level of medium mass media exposure has been due to easy access and availability of different

sources of information like, electronic media, newspapers etc. Similar findings were reported by Tuptewar et al (2007) and Manjusha et al (2015).

Farmers contacted their friends, neighbours and stockmen more frequently as compared to veterinary officers, block development officers and scientists/KVK specialists.

Data given in Table 4 depict that majority (83.37%) of the dairy farmers gave first rank to the problem of high cost of medicines whereas 67.79, 65.42 and 64.27 per cent gave second, third and fourth rank to non-availability of veterinary staff, veterinary medicines and lack of knowledge of imroved dairy farming practices respectively. similar findings were reported by Sarita et al (2017) and Singh et al (2015).

Table 3. Communication behaviour of dairy farmers (n= 120)

Variable	Respondents		Mean	SD
	Frequency	Percentage		
Mass media exposure			6.63	1.82
Low (<5)	16	13.33		
Medium (5 to 8)	81	67.50		
High (>8)	23	19.16		
Extension contact			7.4	1.61
Low (<6)	15	12.50		
Medium (6 to 8)	69	57.50		
High (>8)	36	30.00		
Social participation			0.2	0.5
Low (<1)	100	83.33		
Medium (1-2)	15	12.50		
High (<2)	05	4.16		

Table 4. Constraints in dairy farming practices perceived by dairy farmers (n= 120)

Constraint	Respondents	
	Mean score	Rank
High cost of medicines	83.37	I
Non-availability of veterinary staff	67.79	II
Non-availability of veterinary medicines	65.42	III
Lack of knowledge of improved dairy farming practices	64.27	IV
Inadequate knowledge of diseases	57.00	V
Lack of knowledge about the sanitation and hygiene	51.80	VI
Lack of awareness about importance of vaccination	40.33	VII
Distant location of veterinary hospital	39.25	VIII
Lack of artificial insemination facilities	27.49	IX
Lack of space for isolation of animals	22.94	X

CONCLUSION

The present investigations highlighted the socio-economic profile of dairy farmers and documented the constraints perceived by them related to animal husbandry practices. There is need to focus on inclusion of recommended dairy farming practices through mass media that will help in improvement of dairy farming status of farmers in study area.

There should be proper initiatives by the government and two KVKs located in Biloli and Mukhed blocks for more participation of farmers in different extension programmes conducted by them. Dairy cooperative sector is not well developed in the study area so there is need to focus on to strengthen the cooperatives in the study area with the help of various government policies on dairy cooperatives through proper implementation.

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