Research Article

Study of the socio - economic characteristics of dairy and non- dairy farmers

■ **K.N. MALI, R.B. BELLI AND M.G. KITTURMATH**

SUMMARY : The present study was conducted during the year 2012-13 in Belgaum district of Karnataka state. The 72 dairy farmers and 72 non-dairy farmers were selected randomly from same area to constitute the total sample size of 144. Structured interview schedule was used to collect the data through personal interview. Data were analyzed by using suitable statistical tools. The findings of the socio-economic profile of dairy and non - dairy farmers revealed that dairy farmers (54.17%) and non-dairy farmers (51.39%) belonged to old age, educated up to high school level (26.39% and 27.78%, respectively), medium annual income (50% and 43.06%, respectively), big size of landholding (45.83% and 40.28%, respectively), medium and low experience in dairying (48.61% and 100%, respectively), high economic motivation (37.50% and 50%, respectively) and engaged with business along with agriculture (100% and 51.39%, respectively). Education, annual income and economic motivation showed positive and significant correlation at 5 per cent level of probability with knowledge level. Land holding, dairy experience and subsidiary occupation showed positive and significant relationship at 1 per cent level of probability. The remaining two variables namely, age and family size did not establish any significant relationship with knowledge level.

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BACKGROUND AND OBJECTIVES

Dairy farming is one of the important activities of the rural population of our country. Dairy is the most suitable production system that has enormous potential to improve the socio-economic status of the large percentage of the rural population. While the bulk of milk production is in the hands of numerous landless, marginal and small farmers scattered all over the country. India's livestock sector is one of the largest sectors in the world. In 2010-11 livestock generated output worth Rs. 2075 billion which accounted for 4 per cent of the national GDP and 26 per cent of the agricultural GDP. According to Department of Animal Husbandry Dairying and Fisheries, Ministry of Agriculture, GOI; the country's milk production increased from about 20 (mt) in 1960s to 127.9 million tonnes during 2011-12. Although, per capita availability of milk has increased from 128 gms per day in 1980 to 291 g per day in 2011-12. In Karnataka's per capita availability of milk was 237 g per day in 2010-11. Dairy sectors in Karnataka state have been an important component contributing significantly to the state's economy. Contribution from these sectors is to the extent of 2.97 per cent of the state's overall GDP and 22 of the agricultural GDP.

RESOURCES AND METHODS

Following expost facto research design, the present study was conducted in Belgaum district of Karnataka. In this district, Gokak, Ramdurg and Athani taluks which had maximum dairy societies, were selected purposively as locale of the study. From each selected village, list of dairy farmers was prepared. The farmer who had more than four milch animals considered as dairy farmer. From

each village, 6 dairy farmers were selected randomly. Total 72 dairy farmers spread over in each of the 4 villages of 3 taluks constituted the sample for the study. Data were collected through face to face interview. Statistical analysis was done with the help of SPSS package.

OBSERVATIONS AND ANALYSIS

The Table 1 indicated that, majority of the dairy farmers (54.17%) and non - dairy farmers (51.39%) were old aged group, whereas equal per cent of the dairy and non - dairy farmers (38.89%) belonged to middle age group. Thus, only 6.94 per cent of dairy and 9.72 per cent of non - dairy farmers

could be observed under young aged category. The reasons for the above results may be due the fact that dairying is a recurrent income generating enterprise. It adds significantly to the family income. The income from dairy is an assured source unlike agriculture, which is uncertain one. Therefore, more of old aged dairy farmers are taking up dairying as subsidiary occupation. The results are in line with the findings of Pushpa (2006) who reported that majority of dairy entrepreneurs were of old age group.

It is seen from Table 1 that, 26.39 per cent of dairy farmers and 27.78 per cent of non-dairy farmers were educated up to high school level whereas, 20.83 per cent of dairy and 26.39 per cent of non-dairy farmers were illiterate.

Table 2: Socio-economic characteristics of dairy farmers

Categories	Dairy farmers		Non dairy farmers	
	Frequency	%	Frequency	%
Age				
Young (18-30 years)	5	6.94	7	9.72
Middle (31-50 years)	28	38.89	28	38.89
Old (Above 50 years)	39	54.17	37	51.39
Education				
Illiterate (Don't know to read and write)	15	20.83	19	26.39
Primary school (1-4 standard)	17	23.61	11	15.28
Middle school (5-7 standard)	11	15.28	16	22.22
High school (8-10 standard)	19	26.39	20	27.78
College education	10	13.89	6	8.33
Annual income				
Low	14	19.44	16	22.22
Medium	36	50.00	31	43.06
High	22	30.56	25	34.72
Land holding				
Marginal	8	11.11	0	0.00
Small	13	18.06	15	20.83
Medium	18	25.00	28	38.89
Big	33	45.83	29	40.28
Dairy experience				
Low (Up to 10 years)	35	48.61	72	100.00
Medium (10 to 20 years)	32	44.44	0	0.00
High (Above 20 years)	5	6.94	0	0.00
Economic motivation			,	
Low ($\overline{X} - 0.425SD$)	21	29.17	15	20.83
Medium ($\overline{X} \pm 0.425SD$)	24	33.33	21	29.16
High ($\overline{X} + 0.425SD$)	27	37.50	36	50.00
Subsidiary occupation				
Labour	9	12.50	6	8.33
Business	72	100.00	37	51.39
Service	18	25.00	12	16.67

Thus, 23.61 per cent of dairy and only 15.28 per cent of non-dairy farmers were educated up to primary school education, while 15.28 per cent of dairy farmers and 22.22 per cent of non-dairy farmers had middle school level education. Only 13.89 per cent of dairy farmers 8.33 per cent of non-dairy farmes were educated upto college level. The reason for this could be observed that high school level of formal schooling and non-availability of government jobs might have motivated them to attend the training on dairy. The formal schooling helps the dairy farmers to gather new information required for dairy enterprise which in turn might create positive outlook to manage the dairy enterprise. The reasons behind illiterate dairy farmers could be their lack of interest, lack of encouragement from the elders and their low economic status. It is a well known fact that an educated person turns to be rational in his thinking and imagination which in turn develops entrepreneurial competencies. The above results are in line with the findings of Choudhary and Panwar (2005) and Sheela (1991).

The data presented in Table 1 revealed that half of the dairy farmers (50.00%) and non - dairy farmers (43.06%) had medium level of annual income. Whereas, only 30.56 per cent of dairy farmers and 34.72 per cent of non - dairy farmers were had high annual income and 19.44 per cent of dairy and 22.22 per cent of non - dairy farmers had low annual income. This is due to the possession of medium and big land holding by dairy and non - dairy farmers and also additional income from dairying as probably contributed much to their total income. Experience might have favourable impact on dairy farmers with regards to knowledge gained about improved dairy management practices and putting them in to actual use have certainly contributed increasing income level with comparatively less spending of money and efforts and thus, help in prospering dairying business of dairy man as compared to non-dairy. Non - dairy farmers have taken agriculture as a main occupation and they had knowledge about dairy farming but not adopted. The findings are in conformity with the findings of Suresh (2004) who also noted that half of the farmers milk producers (50.00%) were in medium annual income group.

A glance at Table 1 revealed that less than half of the dairy farmers (45.83%) had big land holding, followed by medium (25.00%), small (18.06%) and marginal (11.11%) land holding. Whereas, majority of non-dairy farmers (40.28%) had big land holding, followed by medium (38.89%) and small (20.83%) land holding. But no one non - dairy farmer could be observed under marginal land holding. The reason for possession of big and medium land holding could be due to the joint families. Medium farmers usually need subsidiary occupation for their better living; since uncertainty and risk are there in farming and, therefore, it has been considered as gambling. In order to sustain the

losses occurred to the small and medium farmers due to vagaries of nature, dairying business suits most and, therefore, they might go for dairying in the study area. Non - dairy farmers may cultivate commercial crops like cotton, maize, sugarcane, etc to enhance their standard of living. The similar results were reported by Patange *et al.* (2001).

A glance at Table 1 revealed that, cent per cent of non-dairy farmers and 48.61 per cent of dairy farmers had low experience in dairying, whereas, 44.44 per cent of dairy farmers were of medium experience in dairying. Only 6.94 per cent of dairy farmers had high (above 20 years) experience in dairying. Hence, no one non-dairy farmer could be observed under medium and high level experience in dairying. The possible reason for low experience of dairy farmers could be due to old age and middle age of the respondents. This could be due to their traditional occupation of middle and old age group. Now days, due to unemployment problem for educated youth, they are pronged to begin with dairying profession allied with agriculture. Since they are newly entering into the dairying profession, they might have less experience as compared to traditional profession of dairying, followed by majority of non - dairy farmers. But less number of non - dairy farmers were had experience in dairying because they have not interested to establish the dairy enterprise and their main occupation was agriculture. The similar results were reported by Bhagyalaxmi *et al*. (2003) who reported that more than half of dairy farmers had low and medium level of experience in dairying.

The data in Table 1 revealed that, majority (44.44%) of dairy farmers possessed medium level herd size followed by low (40.28%) and high (15.28%). Whereas, more than half (58.33%) of non-dairy farmers possessed low level of herd size followed by medium (37.50%) and low (4.17%) level of herd size. The probable reason may be that, dairy farmers had included dairy as a one of the enterprises in their farming system; whereas, non-dairy farmers have dependent on cultivation of field crops and they may have one or two animals which will be just for subsistence. The reason for not possessing more number of crossbred cows might be due to the high cost involved in purchasing of these animals. Another reason might be that crossbred cows required extra care for their maintenance. So, majority of the dairy farmers prefer to possess buffaloes while, non - dairy farmers keep one or two animals for self consumption because of their occupation is agriculture. The above findings are in line with the finding of Beerannarvar (1995).

Economic motivation:
The data in Table 1 indicated that the dairy farmers (37.50%) fell under high economic motivation category, followed by medium (33.33%) economic motivation category. Whereas, half of the non - dairy farmers fell under

Table 2: Relationship between selected independent variables of dairy farmers and their knowledge level about improved dairy management practices (n=72)

Sr. No	Categories	r- value
1.	Age	0.024[NS]
2.	Education	0.316**
3.	Annual Income	0.381**
4.	Land Holding	0.289*
5.	Dairy experience	0.294*
6.	Economic motivation	0.478**
7.	Subsidiary occupation	0.255*

* and ** indicate significance of values at P=0.05 and 0.01, respectively
NS= Non-significant

high economic motivation category, followed by medium (29.16%) and low (20.83%) economic motivation category. The reason for high economic motivation of dairy farmers might be due to their sound economic position, big land holding and possession of crossbred cows. Whereas, the reasons for high economic motivation of non - dairy farmers might be due to the low economic position, small and marginal land holding and lack of encouragement from family members. Other probable reason might be that in order to generate money and increase the income from dairy enterprise, the dairy farmers were highly motivated economically in majority for their liveliness. Unless one is not economically motivated, he/she cannot make sincere efforts and create interest in the profession and earned profit out of it. In case of dairy farmers they had the risk of failure of any of the two enterprises so they had less economic motivation whereas nondairy farmers had single enterprise which they managed with at most care and attention so they had high economic motivation.

These findings are in conformity with the findings of Manjunatha (2002) and Bhagyalaxmi *et al.* (2003) who also stated around half of dairy farmers had high and medium level of economic motivation.

Subsidiary occupation:

A glance at Table 1 revealed that cent per cent of dairy farmers and more than half the non-dairy farmers (51.39%) were engaged in business. Whereas, 25.00 per cent of dairy farmers and 16.67 per cent of non-dairy farmers were engaged with service. Only 12.50 per cent of dairy farmers and 8.33 per cent of non - dairy farmers were engaged in the labour along with agriculture. This may be due to the continuation of ancestral traditional occupation of agriculture along with livestock rearing. Other factors being less scope of employment in non-agricultural sector and also thorough knowledge and high initial investment are required to begin with the new venture. Therefore, majority of non - dairy farmers engaged in business such as fertilizer shop, tractor and general store along with

agriculture. In case of dairy farmers, since they had two enterprises of dairy and field crops they can be widely involved in subsidiary occupations unlike non - dairy farmers who should concentrate much on field crop. The results are in conformity with the findings of Gour (2002) and Patel (2005) who reported that majority of dairy farmers had engaged in dairying along with agriculture.

Relationship between selected independent variables of dairy farmers and their knowledge level about improved dairy management practices:

It could be observed from Table 2 that, total twelve independent variables of dairy farmers; four variables *viz.*, education, annual income, crop productivity and economic motivation showed positive and significant correlation at 5 per cent level of probability with knowledge level. Whereas, five variables *viz.*, land holding, dairy experience, extension contact, cropping pattern, and subsidiary occupation showed positive and significant relationship at 1 per cent level of probability. The remaining two variables namely, age and family size did not establish any significant relationship with knowledge level.

Conclusion:

Price of milk should be fixed based on the cost of milk production so as to provide good price for the milk and to encourage the dairy enterprise. Extension agencies should encourage the dairy farmers to take up fodder cultivation to minimize cost of milk production. To provide good employment and income generation activities for dairy farmers, it is better to establish small scale industries to prepare the milk products like, ghee, curd, butter, cheese, cova etc.

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