



Socio-economic profile of the dairy farmers in Puducherry

**A. Rajadurai, V. Rajaganapathy, R. Ganesan, P. Ponnuvel, K. Natchimuthu,
D. Sreekumar**

Department of Livestock Production and Management
Rajiv Gandhi Institute of Veterinary Education and Research
Puducherry- 605 009

Abstract

Majority of the dairy farmers in Puducherry were women (61.8 per cent), middle aged (47.7 per cent) and literate (81.9 per cent) owning an average herd size of 4.01 numbers of cattle with a mean monthly income of Rs.10,500 and 71.4 per cent of the farmers being landless. The major primary and secondary occupation of the respondents were dairy farming (51.4 per cent and 48.6 per cent respectively) with an average of 25.5 years of experience in dairy farming.

Keywords: dairy farmers, Puducherry, women, middle aged, literate.

Introduction

Livestock production is an important source of income for the rural poor in India. About 70 per cent of the livestock production is in the hands of small and marginal farmers and landless labourers who own less than 30 per cent of the land area. Livestock rearing is particularly engaged with milk production and lends itself to small scale enterprises more effectively than other agricultural enterprises. Animal husbandry sector has a huge potential for providing gainful employment to rural women in their own households as 70 per cent of the workforce in dairying consists of women.

Materials and Methods

The Union Territory of Pondicherry has a total area of 480 sq.km comprising four geographically discontinuous regions viz. Puducherry, Karaikal, Mahe and Yanam. The region of Puducherry is administratively divided into two urban municipalities

(Puducherry and Ozhukarai) and five rural communes (Ariyankuppam, Bahour, Mannadipet, Nettapakkam and Villianur). The sampling procedure followed for this study was stratified proportionate random sampling. Here, a sample size of $n=220$ has been determined using the formula $n = \frac{Z^2 pq N}{e^2 (N-1) + z^2 pq}$ (Kothari, 2009). The sample size of 220 was randomly distributed based on the population of dairy farmers in each of the communes and municipalities. The socio economic profile of the respondents was educated by means of survey using pre-tested questionnaire.

Results and Discussion

Gender

The results on the gender of the farmers involved in dairy farming activities are presented in Table 1. From the table it is observed that majority of the dairy farmers, are women (61.8 per cent) followed by men

(38.2 per cent). Similar findings were recorded in communes and municipalities with minor numerical variations. This finding is in agreement with Prakash *et al.*, (2011), Hai *et al.*, (2011) and Anika *et al.*, (2015) who found that rural women played an important and substantial role in dairy farming.

Age

The results on the age of the dairy farmers are presented in Table 1. From the data it is recorded that majority of dairy farmers belonged to the middle age group (35-50 years). The young and old age group comprised 52.3 per cent in total. The middle age group (47.7 per cent) dominated in dairy farming activity in the study area. The same trend was observed in communes and municipalities with minor numerical variations. This finding is in consonance with the observations of Natchimuthu (2002), Rao *et al.*, (2002) and Tamizhkumaran and Rao (2012) who noted that majority of the dairy farmers were in the middle age group (that is from 43 to 47 years) in Puducherry.

Education

Of the 220 respondents included in the study, 80.0 per cent were educated, whereas only 19.1 per cent of dairy farmers were uneducated. It also showed that 38.2 per cent of the dairy farmers studied secondary level and meagre numbers of graduates were involved in dairy farming (4.5 per cent). Among the communes and municipalities, majority of the dairy farmers in municipalities area studied secondary education (50 per cent vs. 35.5 per cent) compared to communes (Table 1). The present finding is in agreement with the findings of Natchimuthu (2002) who found that about 60 per cent of the dairy farmers in Puducherry had undergone schooling. But, this finding is in contrary with Vivek *et al.*, (2015) who revealed that 45.31 per cent of cattle owners were illiterate and 54.69 per cent were literate in Western Rajasthan.

Primary occupation

The overall primary occupation of the respondents were dairy farming (51.4 per cent) followed by agricultural labour (29.1 per cent). The same trend was observed in communes and municipalities with minor numerical variations (Table 1). This finding is similar to George *et al.*, (2000), Natchimuthu (2002) and Gautham *et al.*, (2007), who found that cattle rearing

was the main occupation of more than 50.46 per cent of the dairy farmers. This finding is not similar to the findings of Tamizhkumaran and Rao (2012) who revealed that dairy farming was either a primary or secondary occupation for the farmer. The most dominant occupation was agricultural labour as about 60 per cent of the respondents depended on it for their livelihood in Puducherry.

Secondary occupation

Majority of the dairy farmer's secondary occupation was dairy farming (48.6 per cent) followed by other occupation (29.5 per cent). Agricultural labour and agricultural farming were 19.9 per cent and 2.7 per cent respectively (Table 1). This finding is not similar to the findings of Tamizhkumaran and Rao (2012) who found that dairy farming was either a primary or secondary occupation for them.

Land holding

Majority of the dairy farmers were landless (71.4 per cent) followed by small farmers (17.7 per cent). Medium and large categories of dairy farmers were 5.9 per cent and 5.0 per cent respectively. The land holding of the dairy farmers ranged from 0 to 8.5 acres and the mean land holding was 0.95 acre (Table 1). The results were almost similar to the findings of Vinothini (2010) who found that majority (60 per cent) of the dairy farmers were landless and average land holding was 0.86 acre in Puducherry.

Annual income

The mean family income per annum was 1,26,000 which ranged from Rs. 20,000 to Rs. 4,50,000. Only 15.9 per cent of the respondent's family income was below Rs. 50,000. Majority (72.3 per cent) of the respondent's family income was between Rs. 50,000 to 1,50,000. About 11.8 per cent of the respondent's family annual income was above 1.5 lakhs (Table 1). The reason for rise in family income may come from other activities.

Income from animal husbandry

The mean income from animal husbandry per annum was Rs. 72,600 which ranged from Rs. 10,000 to Rs. 3,00,000. Only 9.1 per cent of the respondent's income was below Rs. 30,000. Majority (75.9 per cent) of the respondent's family income ranged from Rs. 30,000 to 1,00,000 and about 15 per cent of the

respondent's annual income was above 1 lakh (Table 1). The results were almost similar to the findings of Tamizhkumaran and Rao (2012) who found that income from dairy farming was quite substantial for majority of the respondents in Puducherry. In India, dairy farming has become an important secondary

source of income for millions of rural families. The findings were contradicting the results of Rao *et al.*, (2002) who found that the mean income from dairying per annum in southern states of India was Rs.23,286.

Table 1: Socio economic profile of the dairy farmers

Particulars		Communes (180)		Municipalities (40)		Total (220)	
		n	%	n	%	n	%
Gender of the dairy farmers	Men	70	38.80	14	35.00	84	38.20
	Women	110	61.20	26	65.00	136	61.80
Age of the dairy farmers	Up to 35 years	48	26.70	9	22.50	57	25.90
	35-50 Years	87	48.30	18	45.00	105	47.70
	50 and above	45	25.00	13	32.50	58	26.40
Education of the dairy farmers	No Schooling	36	20.00	6	15.00	42	19.10
	Primary	48	26.70	8	20.00	56	25.50
	Secondary	64	35.50	20	50.00	84	38.20
	Higher Secondary	23	12.80	5	12.50	28	12.70
	College and above	9	5.00	1	2.50	10	4.50
Primary occupation	Agricultural labour	56	31.10	8	20.00	64	29.10
	Dairy farming	96	53.30	17	42.50	113	51.40
	Agricultural farming	18	10.00	5	12.50	23	10.50
	Others	10	5.60	10	25.00	20	9.00
Secondary occupation	Agricultural labour	39	21.70	3	7.50	42	19.10
	Dairy farming	89	49.40	18	45.0	107	48.70
	Agricultural farming	6	3.30	0	0	6	2.70
	Others	46	25.60	19	47.50	65	29.50
Land holding	Landless	127	70.50	30	75.0	157	71.40
	Small (1-2.5 acres)	31	17.20	8	20.0	39	17.70
	Medium (2.5-5 acres)	12	6.70	1	2.50	13	5.90
	Large(5 acres and above)	10	5.60	1	2.50	11	5.00
Annual income	Below Rs.50,000	30	16.70	5	12.50	35	15.90
	Rs.50,000-1,50,000	130	72.20	29	72.50	159	72.30
	Rs.1.5 lakhs and above	20	11.10	6	15.00	26	11.80
Income from Animal Husbandry	Below Rs.30,000	15	8.40	5	12.50	20	9.10
	Rs.30,000-1,00,000	139	77.20	28	70.00	167	75.90
	Rs.>1 lakhs	26	14.40	7	17.50	33	15.00
Herd Size	Small (1-3)	99	55.00	22	55.00	121	55.00
	Medium (4-7)	63	35.00	13	32.50	76	34.50
	Large (8 and above)	18	10.00	5	12.50	23	10.50
Experience of dairy farmers	Up to 10 years	7	3.90	2	5.00	9	4.10
	11-20 Years	36	20.00	10	25.00	46	20.90
	21-30 years	73	40.50	15	37.50	88	40.00
	31 and above	64	35.60	13	32.50	77	35.00

Herd Size

Majority (55 per cent) of the respondents had small herd size, followed by medium (34.5 per cent) and large (10.5 per cent) with minor numerical variations in commune and municipalities. The herd size of the dairy farmers ranged from 1 to 16 numbers and the mean herd size was 4.01 (Table 1). The results were almost similar to the findings of Ramkumar *et al.*, (2001), Tamizhkumaran and Rao (2012) and Vivek *et al.*, (2015) who found that dairy farmers had small herd size of cattle. The results were contradicting with the results of Senthilkumar *et al.*, (2005) who found that medium herd size was more in Chennai.

Source of animal purchase

Of the 220 respondents included in the study, the source of animal purchase for the majority (60.4 per cent) of the respondent's belonged to own farm bred category, followed by 30.4 per cent respondents purchasing from shandy and 23.7 per cent from traders (Table 1).

Experience in dairy farming

Of the 220 respondents included in the study, the experience of majority (40.0 per cent) of the dairy farmers were 20-30 years, while 10-20 years and 30 years and above categories were 20.9 and 35.0 per cent respectively. Experience of the dairy farmers ranged from 3 to 63 years and the mean experience of the dairy farmers was 25.5. About 75 per cent of dairy farmers were involved in traditional dairy farming that had experience of more than 21 years (Table 1). The results were almost similar to the findings of Natchimuthu (2002) and Vinothini (2010) in Puducherry who found that majority of the farmers had a minimum of ten years of experience in dairy farming. The results were contradicting to the results of Usharani (2007) and Tamizhkumaran and Rao (2012) in Puducherry who found that majority of the dairy farmer's experience in dairy farming was between 5-10 years.

Conclusion

Majority of the dairy farmers were middle aged (above 44.12 years), landless, women and literate (80.10 per cent) owning an average herd size of 4.01 numbers. Average annual income of the dairy farmers was Rs.1,26,000 and from animal husbandry, Rs. 72,600. The major occupation of the respondents was

dairy farming. Majority of the dairy farmers had an average experience of 25.50 years.

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