



ISSN (E): 2277-7695
ISSN (P): 2349-8242
NAAS Rating: 5.23
TPI 2023; 12(6): 2073-2076
© 2023 TPI

www.thepharmajournal.com

Received: 25-03-2023

Accepted: 27-04-2023

Nagaraj

M.V. Sc Scholar, Department of
VAHEE, Veterinary College
Bidar, Karnataka, India

Channappagouda Biradar

Associate Professor and Head,
Department of VAHEE,
Veterinary College Bidar,
Karnataka, India

Ashwini

M.V. Sc Scholar, Department of
VAHEE, Veterinary College
Bidar, Karnataka, India

Shivalika

M.V. Sc Scholar, Department of
VAHEE, Veterinary College
Bidar, Karnataka, India

Corresponding Author:

Nagaraj

M.V. Sc Scholar, Department of
VAHEE, Veterinary College
Bidar, Karnataka, India

Peri-urban dairy farming in bidar district: A pilot study

Nagaraj, Channappagouda Biradar, Ashwini and Shivalika

Abstract

An study was conducted to know the analysis of milk production, marketing pattern and constraints of peri-urban dairy farmers in bidar district by using a structured interview schedule through personal interview method. The data was collected from 80 respondents in peri-urban region of Bidar district. The results revealed that majority of respondents were middle aged in which 92.25 percent were males having qualification of PUC (25.00%) and among them 52.50 per cent of respondents were working in government sector. Majority of them were having small land holding (85.00%) and used small area for dairy farm having small animal units (87.50%) with low level of experience in milk marketing and dairy farming. Majority of them market milk on farm along with door-to-door delivery using two-wheelers and majority of respondents were lacking storage facility. Study also revealed that an average price of crossbreed cow milk (36.26 rupees/litter), indigenous cow milk (38.01 rupees /litter) and buffalo milk (55.48 rupees/litter) respectively. Further, lack of credit facility, lack of skilled labour, space constraint for expansion, fodder shortage, lack of training or inputs, market competition and lack of market demand were the constraints faced by the dairy farmers in study area. Therefore, efforts are to be made to increase milk yield and marketing facilities and also necessary conduct awareness training programme on scientific dairy farming practices in the study area in order to make the dairy farming sustainable.

Keywords: Dairy farming, peri-urban, constraints, price of milk

Introduction

In India's economy, the livestock sector is a significant subsector of agriculture. It is a significant source of income for farmers, providing essential inputs for agriculture, improving household health and nutrition, boosting household incomes, creating job possibilities, and addressing the livelihood requirements of rural farmers. According to the 20th Livestock Census report, India's total livestock population is 535.82 million, consists of 57.3% of the world's buffalo population, 14.7% of the world's cattle population (GoI, 2019) [4]. Milk production has increased from 209.96 million tonnes in 2020-21 to 221.06 million tonnes in 2021-22 registering a growth rate of 5.29%. The per capita availability has increased from 333 gm/day in 2015-16 to 444 gm/day in 2021-22 (GoI, 2022) [5]. Major portion of milk produced in India is in the hand of small-holder dairy farmers and who belong to marginal and landless category with low productivity. But, increasing livestock productivity is critical to economic growth and development in a country which can be achieved through the introduction of improved technologies and management systems (Sathisha *et al.*, 2018) [8]. However, it is observed that due to high demand for liquid milk in urban areas, more number of medium to large size dairy units are coming up surrounding the cities to fulfil the liquid fresh milk. Therefore, a study was undertaken to analyse the milk production practices, marketing pattern and constraints of peri-urban dairy farmers in bidar district of Karnataka.

Methodology

The present study was conducted in Bidar district of Karnataka state. To elicit information in peri urban area eighty dairy farmers were interviewed at their farmgate through structured schedule and their socio-economic and socio-psychological profile has been collected, tabulated and analysed. Further, based on their responses, frequency and percentage were calculated to infer the results. Livestock holding of dairy farmers is presented in Adult Cattle Units (ACUs) as conversion coefficient proposed by Ramachandra, (2007) [7] with suitable modifications. Further, based on their responses, frequency and percentage were calculated to infer the result and they were ranked from I to VII in the study.

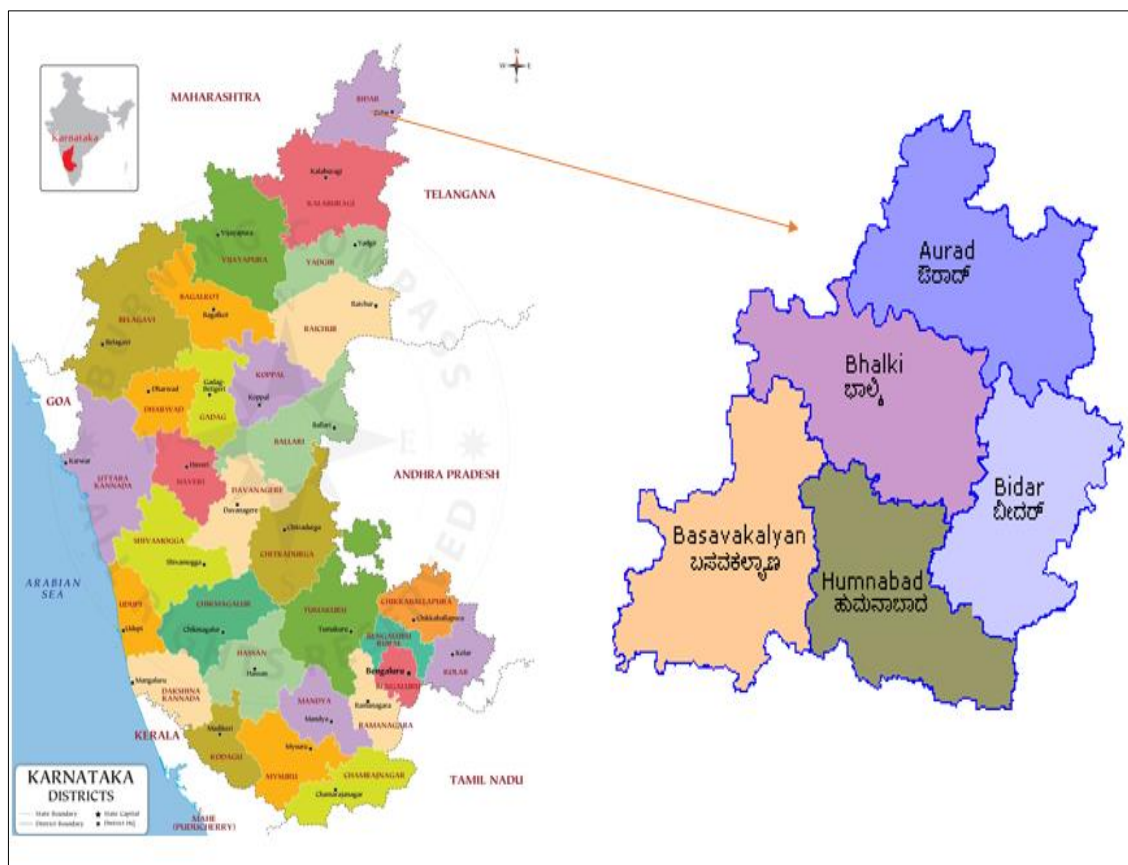


Fig 1: Study area Bidar district of Karnataka state

Result and Discussion

Socio-economic and Socio-psychological features of peri-urban dairy farmer

The general characteristics of the dairy farmers in Table-1 revealed that majority of the respondents were middle aged (38.75%), among which 92.50 per cent were male. It's important to note that majority had qualification of PUC (25.00%) followed by graduation and above (23.75%), high school (22.50%), Illiterates (21.25%) and primary (7.50%). Interestingly, among the respondent's 52.50 percent were working in government sector and 47.50 percent were involved in agriculture along with dairy farming for their income generation. Table 1 also depicts that majority were had small land holding (85.00%) and utilised small land for dairy farm (86.25%), holding small animal units (87.50%) and majority of the respondents had low level of experience in milk marketing (68.75%) and dairy farming (65.00%). The results were in accordance with Thakur (2010), Patil (2019) and Abebe (2021) who reported rural dairy farmers having higher land holding compared to peri-urban dairy farmers and majority were male belong to middle age group with qualification of high school.

Milk marketing practices of peri-urban dairy farmers

Table-1 depicts that majority of the respondents felt peri-urban dairying as profitable (83.75%) and with regards to marketing channels used to sell the milk (Graph-1) revealed that majority of respondents followed on farm sale along with

door-to-door delivery (27.50%) followed by only on farm sale (21.25%), through co-operative societies (20.00%), retail shop (13.75%), door-to-door delivery (11.25%) and through middle man (6.25%). Further, it's important to note that only 6.25 per cent of respondents opted the sale of value-added milk product. Majority of the farmers were lacking storage facilities (87.50%) and with respect to transportation of milk for sale majority use two wheelers (83.75%), followed by four wheelers (8.75%) and by walk (7.50%). The results were in accordance with Singh *et al.*, 2001 and Singh (2000) who reported overall performance of a dairy farm would largely depend on its location and linkages with market as the reason peri-urban dairying is more profitable than rural areas and Bohra (2012) reported around 79 per cent of milk was marketed through producers to consumers directly, compare to middle men, milk traders and other marketing channels and some dairy farmers were involved in preparation of curd followed by ghee as milk by products.

Average marketing price of milk

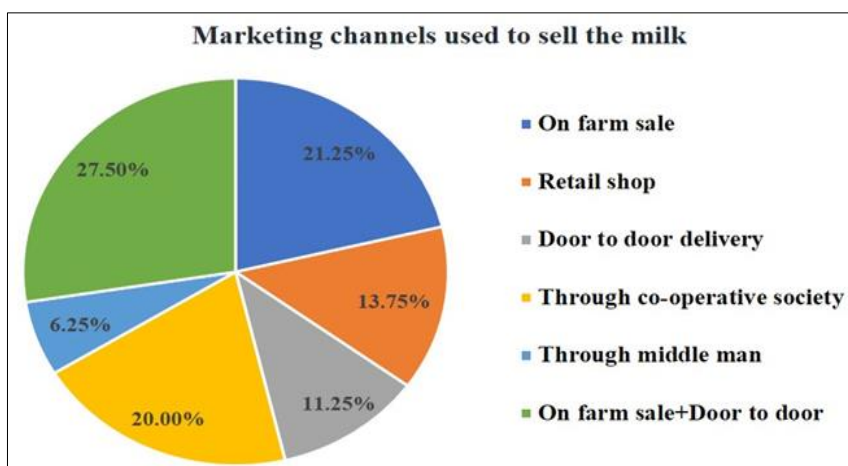
Table-2 narrated that the average cost of crossbreed cow milk is 36.26 rupees per litre while average rate of indigenous cow milk is 38.01 rupees per litre and the price of buffalo milk is 55.48 rupees per litre in peri-urban region of Bidar district. The result was in accordance with Patil (2019) who reported price realized per litre of milk was 25.61 rupees in rural dairy farms and 33.73 rupees in peri-urban dairy farms.

Table 1: Socio-economic profile and milk marketing practices followed by per-dairy farmer

Sl. No	Particulars	F	%
1	Age		
	Young (20-37)	21	26.25
	Middle (38-45)	31	38.75
	Old (46-72)	28	35.00
2	Gender		
	Male	74	92.50
	Female	6	7.50
3	Education		
	Illiterate	17	21.25
	Primary	6	7.50
	High school	18	22.50
	PUC	20	25.00
	Graduation and above	19	23.75
4	Income Source		
	Agriculture	38	47.50
	Govt job/Business	42	52.50
5	Total land holding (in acres)		
	Small (1-16)	68	85.00
	Medium (17-32)	7	8.75
	Large (33-50)	5	6.25
6	Land used for dairy farm		
	Small (0-3)	69	86.25
	Medium (4-6)	10	12.50
	Large (7-10)	1	1.25
7	Experience in milk marketing (in years)		
	Low (1-16)	55	68.75
	Medium (17-32)	22	27.50
	High (33-50)	3	3.75
8	Experience in dairy farming (in years)		
	Low (1-16)	52	65.00
	Medium (17-32)	23	28.75
	High (33-50)	5	6.25
9	Livestock Holding (Animal units)		
	Small (5-44)	70	87.50
	Medium (45-84)	6	7.50
	Large (85-124)	4	5.00
10	In your opinion, is peri urban dairying profitable?		
	Yes	67	83.75
	No	13	16.25
11	Marketing channel used to sell		
	Only on farm sale	17	21.25
	Retail shop	11	13.75
	Door to door delivery	9	11.25
	Through co-operative society	16	20.00
	Through middle man	5	6.25
	On farm sale/Door to door	22	27.50
12	Do you sale milk value added products?		
	Yes	5	6.25
	No	75	93.75
13	Storage facilities		
	Yes	10	12.50
	No	70	87.50
14	Mode of milk transportation for sale		
	By walk	6	7.50
	2-wheeler	67	83.75
	4-wheeler	7	8.75

Table 2: Average marketing price of milk

Sl. No	Species	Average marketing price of milk (rupees/litter)
1	Cross breed cow	36.26
2	Indigenous cow	38.01
3	Buffalo	55.48



Graph 1: Marketing channels used to sell the milk by dairy farmers

Constraints faced by dairy farmers

Constraints refer to the problems which are affecting negatively to the farmers in dairy farming in this study. The findings of Table-3 revealed that the lack of credit facility (16.25%) which ranked first was major constraint perceived followed by lack of skilled labour (15.00%), space constraint for expansion (15.00%), fodder shortage (13.75%), lack of

training or inputs (12.50%), competition (3.75%) and lack of market demand (2.50%) were the other constraints faced by the dairy farmers of peri-urban region of Bidar district in a descending order. Gayathri *et al.*, (2023) reported that scarcity and high cost of feed, shortage facilities at rural level and availability of skilled laborers and lack of credit facilities are the major constraints in dairy farming.

Table 3: Constraints faced by peri-urban dairy farmers

Sl. No	Constraints	Not serious		Less serious		Serious		Most serious		Rank
		f	%	f	%	f	%	f	%	
1	Fodder Shortage	32	40.00	22	27.50	15	18.75	11	13.75	IV
2	Space constraint for expansion	39	48.75	20	25.00	9	11.25	12	15.00	II
3	Lack of credit facility	31	38.75	18	22.50	18	22.50	13	16.25	I
4	Lack of skilled labour	24	30.00	22	27.50	22	27.50	12	15.00	II
5	Competition	42	52.50	20	25.00	15	18.75	3	3.75	VI
6	Lack of market demand	42	52.50	24	30.00	12	15.00	2	2.50	VII
7	Lack of training/ proper technical inputs	23	28.75	21	26.25	26	32.50	10	12.50	V

Conclusion

The result revealed that the peri-urban dairying is profitable in the study area with respect to market price and demand. Lack of credit facility and lack of skilled labour are the most serious issues. However, the milk sector is rapidly growing in the state of Karnataka. Therefore, the findings of the present study will help the policy makers to draw appropriate policies to further enhancement of milk sector. Efforts are to be made to increase milk yield and market facilities further, it's also necessary to conduct awareness training programme on scientific dairy farming practices by the state and central governments, NGOs and other concerned authorities.

Acknowledgement

Authors are grateful to peri-urban dairy farmers of Bidar district for sharing the information and their cooperation. Authors are also thankful to Karnataka Veterinary, Animal and Fisheries Sciences University, Bidar.

References

1. Abebe Moges, Wolde Asaminew Tassew, Asmare Bimrew. Appraisal of Milk Production, Processing and Marketing in Selected Urban and Peri-Urban Dairy Production Systems of Northwestern Ethiopia. Scientific Papers Anim. Sci. Biotechnol. 2021. p. 54.
2. Bohra Babita, Singh Mahak, Kumar Anil, Singh Vir. Milk production, marketing and consumption pattern a

1. Peri-Urban dairy farms in the mountains: A case from Lohaghat in Uttaranchal. ENVIS Bull: Himal Ecol. 2012, 1.
3. Gayathri SL, Bhakat M, Mohanty TK. An outlook on commercial dairy farming in India: A review. Indian Journal of Animal Production and Management. 2023;37(1):45-56.
4. GoI. Livestock census report of 2019, Department of Animal Husbandry Dairying, New Delhi. 2019.
5. GoI. Basic Animal Husbandry Statistics-2022, Ministry of Fisheries, Animal Husbandry & Dairying Department of Animal Husbandry and Dairying Krishi Bhawan, New Delhi. 2022.
6. Patil V, *et al.* Comparative economics of rural and peri-urban dairy farming in Kalaburagi district of Karnataka. J Appl. Nat. Sci. 2019;11(4):762-767.
7. Ramachandra KS. Livestock feed resources in different agro-ecosystems of India: Availability, requirement and their management. Bangalore; c2007.
8. Sathisha MC, Tiwari R, Roy R. Adoption of Good Dairy Farming Practices among Commercial Dairy Owners of Karnataka. Inter. J Livest. Res. 2018;8(12):47-57.
9. Singh V, Tulachan PM, Partap T. Smallholder dairy farming in the mountains. Potential for Operation Flood in Uttaranchal Himalayas, India. Paper presented at the
10. International Symposium on Mountain Agriculture in the Hindu Kush-Himalayan Region, Katmandu, Nepal, 2001

May, 21-24.

11. Singh V, Tulachan PM, Partap T. Smallholder dairy farming in the mountains: Potential for Operation Flood in Uttarakhand Himalayas, India. Paper presented at the International Symposium on Mountain Agriculture in the Hindu Kush-Himalayan Region, Katmandu, Nepal, 2001 May, 21-24.
12. Singh V, Tulachan PM, Partap T. Smallholder dairy farming in the mountains: potential for Operation Flood in Uttarakhand Himalayas, India. Paper presented at the International Symposium on Mountain Agriculture in the Hindu Kush-Himalayan Region, Katmandu, Nepal, May 21-24, 2001.
13. Singh V. Smallholder Dairy Farming in Mixed Crop-Livestock Farming Systems in UP Himalayas. Kathmandu: ICIMOD; c2000.