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Research Article

Cost Analysis of Small-Scale Dairy Farming in Kallakurichi District of Tamil Nadu, India

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ABSTRACT

Dairy farming is the only viable income source for the marginal poor farmers in Tamil Nadu. The present study was undertaken to find out the cost and returns of dairy farming in the Kallakurichi district of Tamil Nadu. The cost involved in milk production has been computed for six different combinations by calculating depreciation on the cost of the animal and including the returns from the sale of manure (Rs. 21.94 per litre), by considering depreciation of the animal cost and by including the returns from the sale of manure and sale of calf (Rs. 21.60 per litre), by considering depreciation on cost of animal and excluding the returns from sale of manure and sale of calf(Rs. 27.18 per litre), by excluding the depreciation on cost of animal and considering returns from sale of manure (Rs. 20.55 per litre), by excluding the depreciation on cost of animal and including the returns from sale of manure and sale of calf (Rs. 20.22 per litre), by excluding depreciation on cost of animal and by excluding returns from sale of manure and sale of calf (Rs. 25.79 per litre).

Keywords- Cow, Kallakurichi, Cost of milk production, dairy farmers, marketing of milk

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INTRODUCTION

Milk production in the country was stagnant during the 1950s and 1960s; annual production growth was negative for many years. The annual compound growth rate of milk production during the first decade after independence was about 1.64 per cent, during the1960s, this growth rate declined to 1.15 per cent. During the late 1960s, the Govt. of India initiated major policy changes in the dairy sector to achieve self-sufficiency in milk production. This policy initiative gave a boost to dairy development and initiated the process of establishing the much-needed linkages between rural producers and urban consumers. In the global context, the performance of the Indian dairy sector appears impressive in terms of livestock population and total milk production but extremely poor in terms of productivity and cost of production. The . main reasons for low yields are inadequate availability of timely and good animal health care practices and lack of breeding services and credit facilities.[n=2]. India has an annual milk production around of 187.7 M.T and the per capita availability of milk is about 344 grams/ day and the same was 836200 tonnes and 322 grams /day respectively in Tamil Nadu. Per capita monthly expenditure towards the consumption of milk and milk products in rural was Rs. 116.38 and in urban was Rs.187.14. Crossbred cows contribute 28 per cent of milk production in the country. The Indigenous / Non – descriptive cows contribute 20 per cent of the total milk production in the country and the remaining is from the buffalo sector[n=1]. Maintaining low-productivity cattle will definitely increase the cost of production and this can be solved by adopting scientific management and maintaining high-producing animals. The present study was designed in such a way to study the cost of production in dairy animals which will be very useful to reduce the cost and increase the benefits

MATERIALS AND METHODS

The sampling procedure followed for this study was stratified proportionate random sampling. The sample size of 240 was randomly distributed based on the population of dairy farmers in the Kallakurichi district of Tamil Nadu in India. The semi-structured interview schedule was designed to obtain relevant data on the various parameters of the study. A pilot study was carried out among 20 dairy owners. Based on the pilot study necessary modifications were carried out, some deleted and some added. Cost of milk production is computed by collecting the details on fixed investment (cost of animal, cost of the shed and cost of the equipment), variable cost variables (Feed, Labour, Insurance, Veterinary Aid, Electricity and water, depreciation on building and equipment's) and Returns (Milk yield, Sale of calves, Sale of manure and Sale of Gunny bags).

RESULT AND DISCUSSION

Expenditure was calculated for 365 days and income was calculated for 305 days. The expenditure towards feeding was 64 when include with depreciation on the cost of the animal and 62.2 per cent while excluding the depreciation on the cost of the animal. The cost of milk production has been computed for six different combinations by considering depreciation on the cost of animals and returns from the sale of manure (Rs. 21.94 per litre), by considering depreciation on the cost of animals and returns from sale of manure and sale of calf (Rs. 21.60 per litre), by considering depreciation on cost of animal and not including returns from sale of manure and sale of calf (Rs. 27.18 per litre), by not considering depreciation on cost of animal and considering returns from sale of manure (Rs. 20.55 per litre), by not considering depreciation on cost of animal and considering returns from sale of manure and sale of calf (Rs. 20.22 per litre), by not considering depreciation on cost of animal and not including returns from sale of manure and sale of calf (Rs. 25.79 per litre).

The average procurement cost per litter of milk was Rs. 28.37. The average milk yield per animal per day was about 7.73. The cost of milk production in the present study was ranges from Rs. 21.94 to Rs. 27.18 for various combinations. Unnithan (2010) found that the average cost of production per litre of milk was Rs.26.00 in Kerala. Manoharan (2000) reported that the average cost of production per litre of milk was Rs. 8.00 in Puducherry and Raju et al., (2016) reported that the average cost of production per litre milk was Rs. 14.27 in Rajasthan. Rajadurai et al., (2020) Average procurement cost of milk was Rs. 28.29 litre in Puducherry.

Cattle - Average Cost of Milk Production (Rs.)

Cattle [n=240]	With sale of		Without sale of
	Manure	Manure & calf	Manure & calf
With depreciation on cost of animal	21.94	21.60	27.18
Without depreciation on cost of animal	20.55	20.22	25.79

Expenditure and Income (Rs.)

Cattle [n=240]	Expenditure – 365 days				Income – 305 days			
	Fixed Cost	Feed Cost	Other Cost	Total Expenditure	Manure	Calf	Milk	Total Income
With depreciation on cost of animal	8762 (14%)	39863 (64%)	13900 (22%)	62525	12000	702	66920	79622
Without depreciation on cost of animal	5532 (9.3%)	39863 (67.2%)	13900 (23.4%)	59295	12000	702	66920	79622

CONCLUSION

From the finding of the present study, the cost of production of milk ranged from Rs 21 to Rs 27 in various combinations. When compared to the selling price of milk the cost of production was very higher and this will reduce the profit margin of the farmer. This can be overcome by the marketing of milk through organised marketing channels for a higher price, creation of own marketing facilities and value addition of milk. A coordination committee (or) dairy farmer committee may be established to fix the marketing price of milk in the time of need to divert the dairy industry from profit loss.

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