



Research Article

COMPARATIVE ECONOMICS OF MILK PRODUCTION

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Abstract: Milk production in India is in the hands of millions of such milk producers, who are ignorant about the economic aspect of milk production. For this study, we have collected data from 120 milk producers in eight tahsils of Amravati district in Maharashtra. Out of 120 milk producers, 28 milk producers of local cows, 32 milk producers of cross breed cows, 28 milk producers of local buffalo and 32 milk producers of improved buffalo are grouped. Different costs were calculated for the year as total units as well as for the milch animals in different groups of milk producers. Sale of milk, sale of young stock, cost of dry fodder, cost of green fodder, cost of concentrate feed, total variable cost, total fixed cost, B:C Ratio, Per litre cost of milk (at variable cost), & Per litre cost of milk (at total cost).

Keywords: Milk, Cost, Cows & buffalo

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Introduction

In India, agriculture and allied sectors provide livelihood to about 70 percent of the population and contribute nearly one fifth of national income, with the land available for cultivation remaining unchanged that is 142.6 million hector. The per capita available land in the context of existing population comes to about 0.30. The pressure exerted by over increasing occupancy on the land by the increasing strength of population has been further reducing the per capita available land. It is insufficient for maintaining minimum standard of living hence, it is utmost necessary that, subsidiary agro-based industries or occupation must be tried by rural people to seek over the means for their survival. As a subsidiary agro-based industry, dairy provide drought power and manures which augment the crop production. The major factor which is the rich source of receipt in dairy *i.e.* milk. India ranks first in the world's milk production. The total milk production (M.T.) and per capita milk availability (gm/day) in India is 121.80 M & 281 gram/day respectively, which is achieved as per recommendation [4]. According to national dairy development board (NDDB), milk production is increasing at one percent per annum in world, while it is increasing at 4% in India. This was achieved due to the organized efforts through 'Operation Flood' projects. In fact, small size milk producers produce bulk of the milk in India. Milk production in India is in the hands of millions of such milk producers, who are ignorant about the economic aspect of milk production. Therefore, the study of economics of milk production is of practical interest to the milk producers in pointed out the direction to bring down the cost of production, thus ensuring good margin of returns to producers & their price to the consumers indirectly governing the supply and demand position of milk will also be helpful in taking rational economic decision by selecting the type and breed of milch animal, size of herd and allocation at their resources such as land, labour and capital *etc* [6]. Under such condition, it is necessary to study the cost of milk production and keeping in view above points, the present research study is undertaken to cope with the object to work out the comparative cost of milk production in different categories of milk producers.

Research methodology-

The present study entitled 'comparative Economics of milk production' was

undertaken with following methodology.

For this study, we have taken collected data from 120 milk producers in eight tahsils of Amravati district in Maharashtra. Out of 120 milk producers, 28 milk producers of local cows, 32 milk producers of cross breed cows, 28 milk producers of local buffalo and 32 milk producers of improved buffalo are grouped.

Cost Concept

Under this heads, the following costs were calculated for the year as total units as well as for the milch animals in different groups of milk producers.

- Sale of milk
- Sale of young stock
- Cost of dry fodder
- Cost of green fodder
- Cost of concentrate feeds
- Total variable cost
- Total fixed cost
- B:C Ratio
- Per litre cost of milk (at variable cost)
- Per litre cost of milk (at total cost)

Results and discussion

The collected data then tabularized for comparative analysis is given as under [Table-1] reflected the comparative economics of milk production from different groups selected for study. It revealed that, highest numbers of animals were found in improved buffalo milk producer's groups, that is 69 animals. As per the total milk production from different groups, it was recorded that, highest productivity was found in improved buffalo. Whereas, lowest milk yield was found in local cows. As per the results reflected above that, receipt from sale of milk to total returns was high in improved buffalo, on the other hand side, receipt from sale young stock was found higher in local cows. The highest requirement of concentrates feeds was to improved buffalo. Total variable cost was highest in improved buffalo, on the contrary, total fixed cost was higher in local cows. Highest B:C ratio was recorded in improved buffalo *i.e.*, 1:2.24.

Table-1 Comparative Economics of Milk Production by Different Groups

SN	Particulars	Local cows 28	Cross breed cows 32	Local buffalo 28	Improved buffalo 32
1	Total animals (no)	32	41	30	69
2	Total milk (Lt.)	13,274	74,807	58,315	1,82,130
3	Sale of milk (% to total receipt)	33.06	80.89	78.78	81.32
4	Sale of young stock (% to total receipt)	48.77	6.08	6.17	7.32
5	Cost of dry fodder(% to total cost)	19.39	27.29	25.25	22.80
6	Cost of green fodder(% to total cost)	14.39	21.62	16.81	20.24
7	Cost of concentrate feeds(% to total cost)	4.50	16.18	12.08	18.00
8	Total variable cost(% to total cost)	76.34	83.40	84.85	87.45
9	Total fixed cost (% to total cost)	23.65	16.59	15.14	12.54
10	B:C Ratio	1:1.10	1:1.53	1:1.71	1:2.24
11	Per lt.cost of milk (at v.c.)	1.94	14.14	13.32	9.42
12	Per lt. cost of milk (at total cost)	21.27	18.23	17.47	12.06

It was 1:1.10 in local cows, 1:1.53 in cross breed cows, and 1:1.71 in local buffaloes milk production. It was further estimated that, per litre cost of milk production at total cost was as Rs. 21.27 in local cows, Rs.18.23 in cross breed cows, and Rs.17.47 in local buffaloes milk production, it obviously seen that, highest per litre cost of milk production was required in local cow's milk production and lowest cost was required in improved buffalo milk production, The overall observation was displayed that, milk production from improved buffalo was found more economically viable.

Summary

Dairy is an important supplementary enterprise for the farmer of rain fed area. It provides continuous flow of income to the farmers. Due to lack of irrigation facilities in the prosecuted research area, agricultural operations are confined to kharif season only. Therefore, labour and resources of the farmers remain ideal for part of the year. Hence, at this situation, dairy enterprise provides additional income without affecting the production of the main enterprises. The present research study "Economics of production of milk and milk products" is prosecuted with a view, to coping with the nature of socio-economic characteristics of milk producers, cost of milk production, marketing cost and resource use efficiency in the milk production selected in the present study. The study under proposition was undertaken with respect of 120 milk producers belonging to eight villages viz. Walgaon and Naya Akola in Amravati tahsil, Waigaon and Khartalegaon in Bhatkuli tahsil, Talwel and Kharwadi in Chandur Bazar tahsil, Hiwarkhed and Udkhed in Morshi tahsil in Amravati district.

Comparative economics of milk production by different groups

Comparative economics of milk production determined that, high milk yield was obtained in improved buffalo whereas, high cost of milk production at total cost was observed in local cows milk production.

Application of research: In comparison of receipt, highest receipt of milk and milk products was estimated in cross breed cows and improved buffalo. On the other hand side, highest B:C ratio was found in improved buffalo milk production.

Research Category: Dairy Science

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