



## A STUDY OF ECONOMICS OF MILK PRODUCTION IN FIROZABAD DISTRICT OF WESTERN UTTAR PRADESH, INDIA

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### ABSTRACT

Dairy farming plays a significant role in the socio-economic development in India. Milk production in India is mainly concentrated on marginal and small farms in rural areas as a subsidiary occupation to agriculture. In addition to this, there are number of organized dairy farms under the cooperative milk producers' union. In the country, the low genetic potential of animals results in the high cost and low milk production. A survey based study was carried out to ascertain the cost of milk production, using a pretested schedule for sample size of 28 farms. Dairy farmers in Hathwanth block of Firozabad District of Uttar Pradesh. The profit margin can be increased by decreasing the cost of production. The overall cost of milk production per litre was Rs. 16.49.

**Keywords:** Milk, production, gross, maintenance, cost, net.

### Introduction

In ancient as less than a divine status the ancient scriptures declare that A God lives where women are worshipped. Man and women have been given the equal status. The Vedic word 'Dumpty' used to denote jointly the husband and wife position of dignity was un holed by her participation in religious and sacrifices which was regarded as the highest right and privilege in the society of those days. There are evidence that some of the rig-Vedic hymns were actually composed by women. The grounds for such high literary attainment were prepared by education in childhood. Many women distinguished themselves not only as Vedic scholars but also as great philosophers, debater and teacher. Due to all factors the women status in the family was nearly the same as that of man. This status in society also was satisfactory (Chaney, 2011).

The agriculture labour are mainly drawn from the poorest class of the society viz – Landless classes, schedule cast (SC) and sporadic women generally stay at home engaged with their domestic duties. It is primarily the economic reason that compels women to come out of home for manual labour works. Shortage of labour in certain pockets craws women to the agriculture labour force. Generally largest number of urban women is employed in service and manufacturing. The broad distribution of male and female workers of India is in the ratio of 5: 2: 3 and 1: 2: 1 among cultivation, agriculture labour and the other respectively shows the distribution of workers by broad occupational categories. The rate of urban women's work participating is labour this is become of the fact that is rural area most of the agriculture works don't requirement much skill and wages paid to female workers are low employers find it economical to employ them (Jaisawal and Patel, 2012).

Milk and milk products are widely acceptable forms of animal proteins in India due to dominance of the vegetarian

population. In an average Indian diet, however, animal proteins make up only less than 10 per cent of the total protein. The per day per capita availability of milk has increased to 375 gm in 2017-18 from 132 gm in 1951 against the trends observed in pulses, meat, oils and total food grains. Recorded growth of 236.8 percent in milk production during 1950-51 to 1992-93. Uttar Pradesh was the largest milk production state in India. The contribution of buffalo, cow and goats in total milk production was 51, 46 and 3 per cent, respectively during 1990. 40% of total milk is consumed in liquid form and some percentage is used for ghee preparation. National average consumption of milk per day per capital is 322 gm. In 2014-15 (Bargali and Shahi, 2015).

It is rightly said empowering women to participation more and more in agriculture rural employment and income through value addition should be the future approach it the nation has to overcome poverty. Hence, an investigation was conducted with the specific objective; a study of determination of cost of milk production in Uttar Pradesh with special reference of rural women Kulshreshtha and Yadav (2007).

As a result of some of the above complex is cities the nutritional level of our diet has become very low being 20 percentage short of energy requirement per head per day as against the minimum per capita dairy requirement of 100 gm of milk, 102 gm meat and one egg recommended by the nutritional advisory committee (1994) in the balanced diet. The present availability of those is fast above one half in respect of milk one either in respect of egg. It is also recognized that protein from animal origin have the higher biological value than the vegetable protein the per capita availability of animals protein in our country is only 6 gm as against the world average consumption of 20 gm. The per capita milk consumption in 1993-94 is estimated at 179 gm commenced to 170 gm in 1969-70 (Kanwat and Singh, 2014)..

It is expected by century (2000 AD). It would rise to 180 gm from a population of 990 million however due to small seals and diversified nature of Indian farming dairying gives many advantage than other livestock enterprise in the economy of Indian agriculture this is firstly because dairying also provided drought animal to be used for the cultivation of crops on the farm.

### Materials and Methods

The present study was conducted in Hathwanth development block of Firozabad district. This block was

selected purposively. A list of different villages was taken by investigator, out of which one village namely Jarouli was selected randomly. After the selection of village 28 respondents were selected for this purpose. The data were collected through pre-structured interview schedule and the data were analyzed, tabulated and find out the percentage.

### Results & Discussion

The gross value of milk production in rainy, winter and summer season per farm it being represented.

**Table 1 :** Gross value of milk production per farm

S. N.	Farm Size Group	No. of Case	Rainy (Rs.)	Winter (Rs.)	Summer (Rs.)	Total (Rs.)
1.	Marginal	19	20078.21 (32.65)	17006.76 (27.66)	24397.81 (39.69)	61482.78 (100.00)
2.	Small	9	32188.33 (29.69)	55371.16 (51.08)	20826.83 (19.23)	108386.32 (100.00)
Overall		28	23970.75 (31.31)	29338.17 (38.32)	23250.00 (30.37)	76558.92 (100.00)

(Figures in parentheses indicates percentage of total annual value)

Table 1 reveals that the overall average gross value of milk per family comes to Rs. 76558.92. During winter season its comes highest being the value of milk Rs 29338.17 and summer season its comes to lowest Rs. 23250.00 and rainy season its comes Rs. 23970.75. In case of marginal farmer the total gross value of production per family comes to Rs 61482.78. In summer season it comes highest being the value of milk Rs 24397.8, in winter season it comes lowest being the value of milk Rs. 17006.76 and rainy season it comes Rs 20078.21.

In case of small farmer to total gross value of production per family comes to Rs. 108386.32. In winter season it comes highest being the value of milk Rs. 55371.16, in summer season it comes lowest being the value

of milk Rs. 20826.83 and in rainy season it is being the value of milk Rs. 32188.33. Small farmers have its maximum gross value of milk production as compared to marginal farmer. The highest milk production is found in summer season in marginal farmers and winter season in small farmers. The lowest production found in winter season in marginal farmers and summer season in small farmers. Similar studies were carried out in the line with Sharma *et al.* (1999); Sharma *et al.* (2000); Sharma (2005); Sharma *et al.* (2008); Sharma *et al.* (2009); Borah and Sharma (2015); Dinesh and Sharma (2019); Yadav and Sharma (2019).

The value of variable cost i.e. green fodder, dry fodder, oil cake, grain, salt & medicine and labour are included in these items.

**Table 2 :** Value of Fodder, Concentrate, Labour, Salt & Medicine per Farm

S. N.	Farm Size Group	Fodder (Rs)	Concentrate (Rs)	Labour (Rs)	Salt & Medicine (Rs)	Total (Rs)
1.	Marginal	15625.78 (49.71)	6915.26 (21.99)	8552.63 (27.20)	340.00 (1.10)	31,433.67 (100.00)
2.	Small	28400.55 (60.05)	9974.44 (21.09)	8583.33 (18.14)	333.34 (0.72)	47291.66 (100.00)
Overall		19731.96 (54.01)	7898.57 (21.62)	8562.50 (23.43)	337.85 (0.94)	36530.88 (100.00)

(Figures in parentheses indicates percentage of total annual value)

Table 2. reveals that the overall value of fodder, concentrate, labour and salt & medicines comes to Rs. 36530.88. In this the value of green + dry fodder, concentrate, labour and salt & medicine is Rs. 19731.96, Rs. 7898.57, Rs. 8562.50 and Rs. 337.85 respectively. In case of marginal farmers the total value comes to Rs.31433.67 and in case of small farmers the total value comes to Rs.47291.66.

The value of feed, fodder, concentrate and labour is higher in case of small farmers as compared to marginal farmers. The fixed cost per family i.e. depreciation, interest and repairing on cattle shed charges on milch animals, building and chaff-cutter is calculated and shown in given table. Similar studies were carried out in the line with Sharma *et al.* (1999); Sharma *et al.* (2000); Yadav and Sharma (2019).

**Table 3 :** Depreciation, Interest & Repairing of Cattle Shed per Farm (Rs)

S. N.	Farm Size Group	No. of Case	No. of Animal	Depreciation on the Value of Milch Animal	Interest on the Value of Animal	Interest, Dep. and Repairing on Cattle-shed	Interest, Depreciation and Repairing of Chaff Cutter	Total
1.	Marginal	19	27	2592.10 (64.44)	849.73 (21.12)	530.26 (13.18)	50.10 (1.20)	4022.19 (100.00)
2.	Small	9	25	5283.33 (62.35)	1590.00 (18.76)	1445.55 (17.06)	153.88 (1.83)	8472.76 (100.00)
Overall		28	52	3457.14 (63.40)	1087.67 (19.94)	824.46 (15.12)	83.46 (1.54)	5452.73 (100.00)

(Figures in parentheses indicates percentage of total annual value)

Table 3, reveals that the overall fixed cost per family is Rs. 5452.73. In this the depreciation the value of milch animal, interest on the value of milch animal, interest, depreciation and repairing on cattle shed and interest depreciation and repairing in chaff cutter of Rs. 824.46 and Rs. 83.46 respectively. The total fixed cost per farm of small farms is higher as compared to marginal farms. Similar

studies were carried out in the line with Borah and Sharma (2015); Dinesh and Sharma (2019); Yadav and Sharma (2019).

The net maintenance cost has been estimated by deducting dung value from gross maintenance cost as shown in the following table.

**Table 4 :** Net maintenance cost per farm

S. N.	Farm Size Group	No of Case	No of Animal	Gross Maintenance Cost (Rs)	Dung Value (Rs)	Net Maintenance Cost (Rs)
1.	Marginal	19	27	35455.86	1063.67	34392.19
2.	Small	9	25	55713.85	1671.41	54042.44
Overall		28	52	41983.61	1259.50	40724.11

Table 4, reveals that the net maintenance cost of milk production per family overall comes to Rs. 40724.11. The net maintenance cost is case of marginal farmers is Rs. 34392.19 and in case of small farmers it is Rs. 54042.44. The net maintenance cost is higher in case of small farms as compared to marginal farms. Similar studies were carried out

in the line with Sharma *et al.* (1999); Yadav and Sharma (2019).

The cost of milk production per liter has been calculated by dividing the net maintenance cost of milk and average milk production as shown by the following table.

**Table 5 :** Cost of milk production per liter

S. N.	Farm Size Group	No. of Case	No. of Animal	Net Maintenance Cost (Rs.)	Average Milk Production (Rs.)	Cost of Milk Production per Liter (Rs.)
1.	Marginal	19	27	24201.89	1395.65	17.34
2.	Small	9	25	19472.95	1258.68	15.47
Overall		28	52	21928.35	1329.79	16.49

Table 5, reveals that the overall average cost of production per liter of milk is Rs. 16.49 per liter cost and in case of marginal farmers is Rs. 17.34 and in case of small farmers it comes to Rs. 15.47. The cost of milk production per liter is greater in case of marginal farms as compared to small farms. Similar studies were carried out in the line with Sharma Borah and Sharma (2015); Yadav and Sharma (2019).

production of milk per liter comes to 16.49. Per liter of production of milk is higher in case of marginal farmers Rs.17.34 as compared to small farmers Rs.15.47.

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### Conclusion

The overall gross value of milk per family comes to 76558.92, respectively. The gross maintenance cost is higher on small farmers as compared to marginal farmers. The net maintenance cost per family is higher on small farmers as compared to marginal farmers. The overall average cost of

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