



MILK UTILIZATION PATTERN AND ITS SUPPLY IN MEERUT CITY

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ABSTRACT

In the present investigation a survey was conducted to study the sources of milk supply and its uses for different purposes in Meerut city. It is observed that on an average 1.94 lakh of milk per day was supplied by organized sector namely Meerut Dugdh utpadak sahkari Sangh, kailash Dairy milk scheme, Amul and Quality dairy. The milk is transported to meerut city from distance through Railways (1.27 lakh litre) and Roodways (1.57 lakh litre per day). Over all 90.80% of milk is being utilied as fluid milk , 2.07% as Dahi 2.07% as khoa , 1.3% as paneer ,1.3% as ice-cream ,1.1% Chhana and rest for sweetened milk ghee/butter etc.

Key word : Milk utilization, fluid milk, milk products.

India is predominantly an agriculture based economy where about 70% of population engaged in agriculture. The contribution of agriculture in national GDP is declining; however the contribution of live stock sector is increased. The major chunk of rural population consist of landless laborers, marginal and small farmers is engaged in livestock sector and this is the major resource for their livelihood in Meerut district of western Utter Pradesh. Today India is first in milk production the world but per capita availability of milk is low and return to the producers from the milk is less. Therefore present investigation was carried out to access various sources and the pattern of milk utilization in five different zones of Meerut city.

MATERIALS AND METHODS

Meerut city was divided into five zones namely Eastern, Northern, Western, Southern and Central zones and a survey was conducted to study the sources of milk supply such as organized like Parag Dugdh Utpadak Sahkari Sangh , Kailas Dairy, Quality dairy and Amul co-operative milk and unorganized sector milk producers dairies of various sizes based on number of animal like small medium and large dairies and milk vendors. The sources through which milk is transported to Meerut city from distant place was also divided like railway and roadways. A survey was conducted zone wise and every milk supplier was contacted for three days simultaneously and to study the milk utilization pattern the quantities used in various products liked fluid milk, Dahi, khoa, Ghee/ butter, paneer, Chhana, ice-cream, tea, sweet milk and kulfi were surveyed and averages were calculated on the basis of three consecutive days.

RESULTS AND DISCUSSION

The results of the survey showed that 7.77 lakh liters of milk/day was used in meerut city, out of which 75.04% were supplied by unorganized sector and only 24.86% milk/day was supplied by the organized sector the contribution of milk producers dairies was 38.43%. However (1) reported that the share of organized sector was higher in Bombay, Baroda, Surat and Noida. (2) observed 75.29% and 72% surplus milk for sale in the market.

1. Milk Supply in Meerut City in Liters : Among the organized sector the Parag Dugdh Utpadak Sahkari Sangh was first (84,000 liter milk/day) and was followed by Amul (45,000 liter), Quality dairy (43,000 liter) and kailash dairy (22,000 liter). The milk procured by organized sector in Meerut city was utilized as 1.37 lakh liter as fluid milk 30,000 liter in ghee, 18,000 liter in butter, 8,000 liter in flavoured milk and only 1,000 liter per day for making milk cake.

2. Milk Supply by Small, Medium and Large Sized Dairies Spread Over Whole Meerut City in Liters : The total milk supplied by unorganized sector particularly private dairies was 2.987 lakh liter/day, out of which the contribution by medium dairies was maximum followed by large and small dairies. The central zone of Meerut city consumed highest milk per day and followed by the eastern, western, southern and northern zone.

3. Milk Supply of Various Railways Station in Meerut City in Liters : The overall milk transported by various railways terminals was 1.272 lakh/day, out of which through Meerut city terminal supply was 43000

Table-1: Milk supply by organised sector in Meerut city in liters.

S.No.	Agencies	Brand	Fluid milk	Milk used for butter	Milk used for ghee	Flavour Milk	Milk cake	Total
1.	Parag Dugdh Utpadak Sahakari Sangh partapur Meerut	PARAG	60000	5000	10000	8000	1000	84000
2.	Quality dairy Pvt.Ltd. Hapur	QUALITY	25000	8000	10000	-	-	43000
3.	Kailash Dairy Pvt.Ltd. partapur Meerut	KAILASH	22000	-	-	-	-	22000
4.	Amul Gujrat Co-operative Milk Marketing Federation Anand Co-operative Ltd, Gujrat	AMUL	30000	5000	10000	-	-	45000
	Total		137000	18000	30000	8000	1000	194000

Table-2: Milk supply by small, medium and large sized dairies spread over whole Meerut city in liters.

S. No.	Zone	Small dairy		Medium dairy		large dairy		Total
		Cows	Buffaloes	Cows	Buffaloes	Cows	Buffaloes	
1.	Eastern	3130	6055	6363	16576	11700	22291	71145
2.	Northern	448	692	3436	6915	1880	5070	18477
3.	Western	881	1216	7590	18810	5650	16600	50747
4.	Southern	1321	1605	6784	17720	2830	7150	37410
5.	Central	2931	5126	16620	46485	12200	37545	120907
	Total	23445		147329		12791		298686

Table-3: Milk supply of various railway stations in Meerut city in liters.

S. No.	Railway Station	1st DAY	2nd DAY	3rd DAY	Average
1.	Mohiddinpur	12500	10500	11000	11333.00
2.	Kharkhauda	10500	10000	12500	11000.00
3.	Partapur	32250	32000	31500	31917.00
4.	Meerut city	45000	44000	40000	43000.00
5.	Meerut Cantt.	27500	30000	25500	27667.00
6.	Daurala	2000	2350	2500	2283.00
	Total	129750	128850	123000	127200.00

Table-4: Milk supply of various roadways stations in Meerut city in liters.

S. No.	Roadways Terminal	1 st DAY	2 nd DAY	3 rd DAY	Average
1.	Kharkhauda	10000	9000	7500	8833.00
2.	Partapur	10500	11000	10000	10500.00
3.	Mohiddinpur	9000	10000	7500	8833.00
4.	Daurala	20000	22500	20500	21000.00
5.	Sakoti	27500	25500	27250	26750.00
6.	Mawana	30000	27000	28000	28333.00
7.	Bahsuma Janni	10500	10750	12500	11250.00
8.	Kanker Khera	7500	9000	8000	8167.00
9.	Shastri nagar	24500	33000	33500	33667.00
	TOTAL	159500	157750	154750	157333.00

liters and was followed by Mohiddinpur (11.333 thousand), Kharkhauda (11.000 thousand), partapur (31.917 thousand), Meerut city (43.000 thousand), Meerut cantt (27.667 thousand), and Daurala (2.283 thousand) liter per day, respectively.

4. Milk Supply of Various Roadways Station in Meerut City in Liters : The milk transported by roadways were 1.573 lakh liter. The highest milk/day was transported from Shastri nagar and followed by Mawana, Saket, Daurala, Bahsuma, Janni, Partapur, and Kanker khera.

5. Utilization Pattern of Milk in Eastern Zone of Meerut City : The zone wise milk utilization in Meerut city was observed as eastern zone utilized 155761 milk in liters/day out of 92.74% utilized as fluid milk, 1.59% in Dahi, 0.46% in Tea, in 0.40 Sweetend milk, 1.6% in Khoa, 1% in Paneer, 0.36% in Ghee/butter, 0.91% in Chhana, 0.49% in Ice-cream, and 0.45% in Kulfi. Shaikh (1987) reported the fluid milk sale as 1400 liter milk per day per lakh population in Bombay, Baroda, Noida and Surat. Srinivasan and Rajooehi (1976) and Nygard (1998) different milk product requirement reported the 55% and 13% milk utilization.

Table-5: Utilization pattern of milk in eastern zone of Meerut city.

S. No.	Products	Amt. of milk in liters	Percent
1.	Fluid milk	155761	92.74
2.	Dahi	2668	1.59
3.	Tea	767	0.46
4.	Sweetend milk	670	0.40
5.	Khoa	2695	1.60
6.	Paneer	1673	1.00
7.	Ghee/Butter	603	0.36
8.	Chhana	1535	0.91
9.	Ice-cream	830	0.49
10.	Kulfi	760	0.45
	Total	167962	100.00

6. Utilization Pattern of Milk in Northern Zone of Meerut City : In northern zone out of 46.887 thousand liter, the fluid milk utilization was 85.52% and followed by Dahi (3.44%), Khoa (2.98%), Ic-cream (2.18%), Paneer (1.77%). Chhana (1.62%), Sweetened milk (1.27%), Tea (1.07%) and only 0.15% ghee/butter.

Table-6 : Utilization pattern of milk in Northern zone of Meerut city.

S. No.	Products	Amt. of milk in liters	Percent
1.	Fluid milk	40090	85.52
2.	Dahi	1612	3.44
3.	Tea	502	1.07
4.	Sweetend milk	593	1.27
5.	Khoa	1397	2.98
6.	Paneer	828	1.77
7.	Ghee/Butter	75	0.15
8.	Chhana	760	1.62
9.	Ice-cream	1020	2.18
10.	Kulfi	-	-
	Total	46877	100.00

7. Utilization Pattern of Milk in Western Zone of Meerut City : In western zone out of 1.2143 lakh liter 92.76% was utilized as fluid milk, 1.44% in khoa, 1.42% in Dahi, 0.96% in paneer, 0.83% in kulfi, 0.33% in tea, 0.81% in Chhana, 0.83% in Ic-cream and 0.53 in ghee/butter, 0.33% in Tea and 0.58% in Sweetend milk.

Table-7 : Utilization pattern of milk in western zone of Meerut city.

S. No.	Products	Amt. of milk in liters	Percent
1.	Fluid milk	112642	92.76
2.	Dahi	1725	1.42
3.	Tea	398	0.33
4.	Sweetend milk	698	0.58
5.	Khoa	1748	1.44
6.	Paneer	1167	0.96
7.	Ghee/Butter	645	0.53
8.	Chhana	987	0.81
9.	Ice-cream	1010	0.83
10.	Kulfi	410	0.34
	Total	121430	100.00

8. Utilization Pattern of Milk in Central Zone of Meerut City

Central zone was observed to be at first position in Meerut city as milk consumption is concerned and milk was consumed as 90.11% as fluid milk, 2.16% Dahi, 2.13% khoa, 1.31% Paneer, 1.26% Ic-cream, 0.95% Chhana, 0.62% Sweetened milk, 0.95% in Kulfi, 0.47% in Tea and only 0.40% ghee/butter manufacturing.

Table-8 : Utilization pattern of milk in central zone of Meerut city

S.No	Products	Amt. of milk in liters	Percent
1.	Fluid milk	269192	90.11
2.	Dahi	6445	2.16
3.	Tea	1398	0.47
4.	Sweetend milk	1840	0.62
5.	Khoa	6348	2.13
6.	Paneer	3923	1.31
7.	Ghee/Butter	1192	0.40
8.	Chhana	2825	0.95
9.	Ice-cream	3780	1.26
10.	Kulfi	1780	0.59
	Total	298723	100.00

9. Utilization Pattern of Milk in Southern Zone of Meerut City : In southern zone a total of 1.422 lakh liter of milk was utilized and this zone of Meerut utilized only 86.09% of fluid milk/day, khoa 2.65%, Dahi and ic-cream 2.57%, Paneer 1.56%, Chhana 1.5%, Sweetened milk 1.08%, Kulfi 0.80%, Tea 0.60% and 0.58% only ghee/butter manufacturing.

Table-9 : Utilization pattern of milk in southern zone of Meerut city.

S. No.	Products	Amt. of milk in liters	Percent
1.	Fluid milk	122249	86.09
2.	Dahi	3568	2.51
3.	Tea	862	0.60
4.	Sweetend milk	1552	1.08
5.	Khoa	3780	2.65
6.	Paneer	2230	1.56
7.	Ghee/Butter	838	0.58
8.	Chhana	2153	1.50
9.	Ice-cream	3665	2.57
10.	Kulfi	1330	0.80
	Total	142227	100.00

CONCLUSION

During the survey it was observed that a total of 7.77 lakh liter of milk per day was supplied in Meerut city out

of which only 24.86% was supplied by the organized sector and among the unorganized sector the contribution of medium was higher. The 90.08% milk was utilized as fluid milk and 2.07% as Dahi, 2.05% as khoa, and 1.3% as ice-cream and Paneer making. The central zone utilized the maximum milk and northern zone minimum as 29531 and 6787 liter per day, respectively.

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