Short Communication……..

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Study on interrelationship between different constituents of raw milk available in Baraut town from various sources of supply

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ABSTRACT

The experiment was conducted to study the interrelationship between different constituents of raw milk from various sources of supply (Milk vender, Halwai, Private Dairy, college Dairy farm and Milk producer). It can be concluded that milk supplied from the college dairy farm and individual milk producers was the best quality while poorest quality was supplied by milk venders.

KEYWORDS

Interrelationship, Milk Constituents

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Milk is a major article of Indian diet. The nutritive value of milk depends on composition and interrelationship between different constituents. Vieth was the first scientist who recognized that exists there interrelationship between milk constituents. The composition and interrelationship between different constituents are exists both physiological and commercial interest and helpful in detection of abnormal milk and quality of milk. The present study was taken up to study the interrelationship between different constituents of raw milk from various sources of supply (Milk vender, Halwai, Private Dairy, College Dairy farm and Milk producer).

MATERIALS AND METHODS

In present investigation 10 samples of milk were analyzed for each source (Milk vender, Halwai, Private Dairy, College Dairy farm and Milk producer) by (A.O.A.C., 1970). From the above constituents the following interrelationship were calculated *viz*, Koestler Number, Lactose chloride Number, Protein fat Number, Casein fat Number, Fat SNF ratio, SNF fat Number. Data were statistically analyzed as describe by (Snedecor and Cochran, 1994)

RESULTS AND DISCUSSION

As regards Koestler No. there is narrow range of variation except from private dairies. The lower values for milk samples from private dairies are due to higher lactose and lower percent of chloride in milk. Our values are close agreement to that of (Singh, 1989) but reverse trend was observed from private dairy in lactose/chloride number. It was highest as compared to milk samples from other sources of supply. The lowest lactose chloride number of milk from vender was due to poorest quality milk supply. Our values for other milk samples are slightly higher to those reported by (Singh, 1989). Protein fat No. was slightly lower in individual milk producers and higher was in college dairy farm milk samples and private dairies. Milk samples from milk vender and halwai showing practically the same and occupying intermediate position in different sources of milk supply. As regard casein fat No., it was clear that a wide range in milk samples from different sources. The lowest casein fat number was observed in milk vender due to poorest quality of milk and highest casein fat number was in college dairy farm and individual milk producers samples due to the good quality milk while private dairy and halwai supplying milk of satisfactory quality to city consumers. SNF fat ratio was higher in samples from milk venders which due to the lower fat content in milk but while other samples were very close to each other, having very low variation in average values because that fat/ SNF percent of milk samples

Table 1. The composition of milk

S. N.	Constituents of Milk	Milk vender	Halwai	Private Dairy	College Dairy farm	Milk producer
1	Fat percent	3.75	5.56	5.56	5.87	6.01
2	Protein percent	2.69	3.33	3.37	3.50	3.38
3	Lactose percent	4.33	4.79	5.38	4.85	4.91
4	Chloride percent	0.10	0.10	0.10	0.11	0.10
5	Total solids percent	11.30	14.18	13.90	15.69	15.35
6	Solids not fat percent	7.55	8.62	8.44	9.82	9.34
7	Casein percent	1.91	2.43	2.54	2.65	2.41

Table 2. Showing the interrelationship between different constituents of raw milk available in Baraut town from various sources of supply

S. N.	Constituents of Milk	Sources of Supply				
		Milk Vender	Halwai	Private Dairy	College Dairy Farm	Milk Producer
1	Koestler No.	2.397	2.127	1.949	2.287	2.135
2	Lactose chloride No	5.741	6.172	6.804	6.351	6.335
3	Protein fat No	1.377	1.384	1.424	1.445	1.276
4	Casein fat No	1.132	5.196	5.478	6.457	6.050
5	Fat SNF ratio.	2.015	1.550	1.482	1.673	1.570
6	SNF fat No	7.258	7.598	7.219	8.674	8.242

collected from these sources are also very with the narrow limits. Highest Fat-S.N.F number was recorded in milk samples collected from college dairy farm and individual milk producers. Slightly lower average values were recorded for milk samples collected from milk vender, halwai and private dairies but the extent of variation in S.N.F and fat number was observed very narrow in milk samples collected from milk venders, halwai and private dairies. These values were least variables due to the sources of milk supply. Sharma, Martin, and Wilcox (1982) also reported on Mathematical Interrelationships between Milk Constituents and Yields.

CONCLUSION

It can be concluded that milk supplied to Baraut town from different sources was best quality of milk supplied from the college dairy farm and individual milk producers while poorest quality was supplied by milk venders.

REFERENCES

A. O. A. C. (1970) Methods of analysis of the Association of official analytical chemists. Washington,

D. C. Snedecor, G. W. and Cochran, W. G. (1994) Statistical methods. Oxford and IBH Publication Co., New Delhi.

Singh, H. (1989) Quantative interrelationship between constituents of cow milk and buffalo milk M.Sc. Ag. thesis, C. C. S. University Meerut, (unpublished)

Sharma, A. K., Martin, F. G. and Wilcox, C. J. (1982) Mathematical Interrelationships between Milk Constituents and Yields, Journal of Dairy Science,65(6):1051-1054.

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