

ACKNOWLEDGEMENT

The author is ever grateful and indebted to the **Almighty God** without whose grace it would have never been possible to pursue this study in this field of science and to complete this production report writing for the Degree of Doctor of Veterinary Medicine (DVM).

It is deemed as a proud privilege and extra-terrestrial pleasure to express authors ever indebtedness, deepest sense of gratitude, sincere appreciation and profound regards to authors reverend and beloved teacher and Supervisor **Dr. Marjina Akter**, Assistant Professor, Department of Dairy and Poultry Science, Chittagong Veterinary And Animal Sciences University for his scholastic guidance, uncompromising principles, sympathetic supervision, valuable advice, constant inspiration, affectionate feeling, radical investigation and constructive criticism in all phases of this study and preparing the manuscript also.

The author highly expresses her sincere gratitude and gratefulness to **Dr. A. K. M. Saifuddin**, Director, External affairs, for his support and courage.

Last but not the least, the author is very grateful to the respondents of the study areas, who were co-operatives and helpful during collection of data to the author.

The Author

TABLE OF CONTENTS

SL No.	Title	PAGE NO.
1	Acknowledgement	I
2	Table of contents	II
3	List of the tables	III
4	List of the figures	III
5	List of abbreviation	IV
6	Abstract	V
7	Chapter I- Introduction	01-02
8	Chapter II -Materials and Methods	03-04
9	Collection of Samples	03
	Methods Followed for milk testing	04
	Statistical analysis	04
10	Chapter III- Results and Discussion	05-11
	Physical and Chemical Quality	05-08
	Chemical quality	05
	Farm milk	05
	Brand milk	06
	Different distributing point milk	08
	Adulteration	09-10
	Farm milk	09
	Brand milk	10
	Preservatives	11
11	Chapter IV- Conclusion	12
12	References	13-15
13	Biography	16

LIST OF TABLES

Table	Content	Pages
Table 1	Nutritional and chemical composition of different farm milk.	06
Table 2	Nutritional and chemical composition of brand milk.	07
Table 3	Nutritional and chemical composition of different distributing point milk.	08
Table 4	Adulteration status of milk collected from different dairy farms.	10
Table 5	Adulteration status of different brand milk collected from market.	10
Table 6	Adulteration status of milk collected from different collection points.	11

LISTS OF FIGURES

Figure	Name of figure	Page
Figure 1	Butter Fat test	04
Figure 2	Specific Gravity Test	04
Figure 3	Nutritional and chemical comparison among farm milk, brand milk & distribution point milk.	09

LISTS OF ABBREVIATION

Abbreviation	Elaboration
CMA	Chittagong Metropolitan Area
SPG	Specific Gravity
BF	Butter fat
SNF	Solids-not-fat
SR	Standard error
NS	Solids-not-fat
%	Percentage
/	Per
±	Plus-minus
FPM	Farm produced milk
ABM	Available brand milk
DDPM	Different distributing point milk

ABSTRACT

The present study was conducted to evaluate the quality of fluid milk consumed by the people of Chittagong Metropolitan Area (CMA). Three type of milk samples namely as farm produced milk (FPM), brand milk (BM) and different distributing point milk (DDPM) were collected directly from the farms, retail shops and selling points of different areas under CMA, respectively. A total of 65 samples (25 samples from 5 farms, 20 samples from 4 brands, 20 samples from 4 different point) were collected and analyzed to evaluate the physical (specific gravity) and chemical (percentage of butter fat, solids-not-fat, protein and lactose) parameters of milk samples. The tests for adulteration and preservative detection were also conducted during study. Considering physical and chemical parameters farm milk found superior quality, brand milk found good quality as standards of BSTI (Bangladesh Standards and Testing Institution). This study detected that milk samples, sampling areas, were modified with water mostly distribution point milk. In case of farm Bhuyan dairy, Azizia dairy, Bondhan dairy adulterated with percentage of water added is 5%, 4%, 4.5% respectively. In case of brand milk only Farm fresh was added 4% water. In case of distributing point Citygate, Solasahar, Baddarhat and Karnafuli bridge were added water 18%, 16%, 08% and 06%, respectively No preservative was found in any sample might be due to low temperature.

Key word: Milk, Milk quality, Adulteration