

**DEVELOPMENT OF CHEDDAR CHEESE USING LOW
FAT BUFFALO MILK**

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ABSTRACT

Cheese is one of the most popular concentrated and coagulated milk products with a smooth texture having salty taste and pleasant flavor. It is one of most important dairy product consumed throughout the world. The nutritional and health benefits of cheese are numerous. A study was conducted to assess the quality of cheese with full cream and low fat buffalo milk. The study was used to monitor the quality of Cheddar cheeses using both milk. The chemical (moisture, ash, protein and fat) and physical (colour, flavour, taste, texture, hardness, springiness and overall acceptability) properties of both cheeses were studied at day one and ripening. Nine points hedonic scale ranking method was used to evaluate organoleptic characters.

The average yield of full cream cheese and low fat cheese were obtained from fresh buffalo milk 720 g / 5.0 liters of milk and 515 g / 5.0 liters of milk, respectively. Quality attributes of cheese are moisture, ash, protein, fat and pH significantly ($P < 0.05$) changed during the ripening period. Fat content of the full cream cheese and low fat cheese was increased with the ripening period. But the moisture content and protein content were decreased by the increasing of water losses. Fat content and protein content were higher in the full cream cheese than the low fat cheese while the moisture content was high in low fat cheese compared to full cream cheese. The sensory attributes such as colour, flavour, texture, taste and springiness of full cream cheese were preferred higher than the low fat cheese. Overall colour change was higher in low fat cheese than full cream cheese. But the preference of hardness was higher in the low fat cheese than the full cream cheese.

TABLE OF CONTENTS

	Page No
ABSTRACT	i
ACKNOWLEDGEMENT	iii
TABLE OF CONTENTS	iv
LIST OF TABLES	vii
LIST OF FIGURES	viii
1.0. INTRODUCTION	1
2.0. REVIEW OF LITERATURE	4
2.1. History	4
2.2. Milk	4
2.2.1. Composition of milk	4
2.2.2. Water	5
2.2.3. Fat	5
2.2.4. Protein	5
2.2.5. Casein micelles	8
2.2.6. Casein and casein micelle properties	8
2.3. Coagulation	9
2.3.1. Enzyme coagulation (Rennet)	10
2.3.2. Factors affecting Enzyme coagulation (Rennet coagulation)	10
2.4. Cheese	11
2.5. Cheese Ripening	12
2.5.1. Biochemistry of cheese ripening	14
2.5.2. Microbial events of cheese ripening	20
2.5.3. Accelerating the ripening of cheese:	21
2.6. Texture of cheddar cheese	22
2.7. Sensory evaluation for cheddar cheese	23
3.0. MATERIALS AND METHODS	24
3.1. Location	24
3.2. Collection of milk samples	24
3.3. Procedure of different types of cheese preparation	24

3.3.1. Standardization	24
3.3.2. Heat treatment.....	24
3.3.3. Adding starter culture	24
3.4.4. Adding rennet enzyme	25
3.4.5. Cutting the coagulum.....	25
3.4.6. Cooking the coagulum	25
3.4.7. Cheddaring Process.....	25
3.4.8. Adding dry salt.....	25
3.4.9. Mold the cheese curd	25
3.4.10. Packaging the cheese curd	25
3.5. Proximate composition (nutrients) analysis.....	27
3.6. Questionnaire study	28
3.7. Statistical analysis	28
04. RESULTS AND DISCUSSION	30
4.1. Yield determination of full cream and low fat cheese.....	30
4.2. Nutritional and physical status of full cream and low fat cheese at day one.	31
4.3. Change of proximate (nutrients) composition during ripening period.	32
4.3.1. Moisture:	32
4.3.2. Ash:	32
4.3.3. Protein:	34
4.3.4. Fat:	34
4.3.5. pH:.....	35
4.4. Sensory evaluation of cheese produced from different treatments... 37	
4.4.1. Colour:	37
4.4.2. Flavour:	37
4.4.3. Taste:	39
4.4.4. Texture:	40
4.4.5. Hardness:.....	41
4.4.6. Springiness:.....	41