Dedication

To our perfect mother

Our best father.....

.....and our good family brothers and sisters

Acknowledgment

All my thanks to **our supervisor**. **MOHAMMED YOUSUF for his guidance** and I wish to express our thanks to **Miss. HUDA ZAIN AL ABDEEN for her help us**.

Deepest thanks to our brothers and sisters to our support and last thanks to our friends...

Abstract

This experiment was conducted to compare some quality characteristics of fish and beef burger samples. After processing and preservation fish and beef sample were cooled at- 18° c about 24hour. Were determined in doublicate for chemical analysis and sensory evaluation. Sample were showed significant (p \leq 0.05) differences in to croude protein and either extract. The results proved fish burger higher croude protein and either extract content and economic value that there low cost in fish burger. However there were no significant (p \leq 0.05) different in sensory evaluation.

ملخص الأطروحة

أجريت هذه التجربة لمقارنة بعض خصائص الجودة لعينات من البيرقر المصنع من السمك و البقر. وبعد التجهيز حفظت في درجة حرارة -18°م. تم تحديد التحليل الكيميائي، و التقييم الحسي مرتين .اثبتت النتائج وجود فروق ذات دلالة احصائية $(p \le 0.05)$ في مستوى البروتين ومستخلص الدهن والتكلفة الاقتصادية ، حيث اظهرت عينات بيرقر السمك اعلى محتوى من البروتين ومستخلص الدهن واقل تكلفة اقتصادية ،سجلت عينات البيرقر عدم وجود فروق ($p \le 0.05$) ذات دلالة احصائية في التقييم الحسي اوالقبول ال

List of Contents

Content		
آیة قرآنیة		
Dedication		
AcknowledgmentII		
AbstractIII		
Arabic AbstractV		
List of contentsVI		
List of tablesVII		
Chapter One		
Introduction		
1 Introduction1-2		
Chapter Two		
Literature Review		
2.1 Fish meat3		
2.1.1 Nutritional composition of fish meat3		
2.1.2 The nature of fishing in Sudan4		
2.1.3 Fish meat consumption in Sudan4		
2.1.4 Chemical composition of fish5		
2.1.5 Fish Burger5		
2.2 Reef meat 6		

2.2.1 Nutritional composition of beef meat6
2.2.2 Chemical composition of beef meat6
2.2.3 Beef meat burger7.
2.3 Quality of meat8
2.3.1 Colour8
2.3.2 Tenderness and Juiciness8
2.3.3 Flavour and Aroma 9
2.4 Cooking loss%10
2.5 Water holding capacity (WHC)10
Chapter Three
Materials and Methods
3.1 Location of the study11
3.2 Material used in process11
3.2.1 Meat sources11
3.2.2 Beef meat11
3.2.3 Fish meat11
3.2.4 Spices11
3.2.5 The casing11
3.2.6 The filler12
3.2.7 The binder12
3.3 Tools used for manufacturing13
3.4 Preparation of Burger13

3.5 Preparation of sample13
3.6 Cooking loss%
3.7 Statistical Analysis14
Chapter Four
Results
4.1:Results15-16
Chapter Five
5. Discussion
Chapter six
6.Conclusions and
Recommendations
References
References
Appendixes

List of Tables

No.	Title of the table	Page
1	The overage amount of protein and calories for fish and other animals or animal product/100	3
2	The chemical composition of fish meat	5
3	The chemical composition of fresh fish burger	5
4	The chemical composition of beef meat	6
5	The chemical composition of fresh beef burger (Ali et al2011)	7
6	The chemical composition of fresh beef burger (Lee et al 1997)	7

7	Ingredients of beef/fish burger	12
8	Chemical composition between beef burger and fish	14
9	Panel test analysis between fish and beef burger	15