DEVELOPMENT OF FISH SAUSAGE WITH ADDED VEGETABLES

BY

P.K.W.H.PREMAKEERTHI

Thesis submitted to the University of Sri Jayewardenepura as

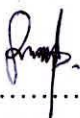the partial fulfillment requirement for the award of the Degree

of Master of Science in

Food Science and Technology

M Sc   2008.

Declaration

The work described in this thesis was carried out by me under the supervision of Prof. Arthur Bamunuarachchi (Department of food science and technology, university of Sri Jayawardenepura, Nugegoda, Sri Lanka) and Mrs. Indira Wickermasinghe (Department of food science and technology, university of Sri Jayawardenepura, Nugegoda, Sri Lanka). I declare that this report or any part of the report has not been submitted, presented or accepted in any previous applications for another degree.
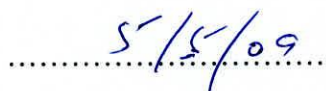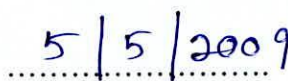
10 . 11 . 2009

Date

P.K.W.H.Premakeerthi.

Declaration of the supervisors

We certify that the above statement made by the candidate is true to the best of our

knowledge and that this thesis is suitable for submission to the university for the

purpose of evaluation.

....5/5/09........

Supervisor   Date

Prof. A Bamunuarachchi

Department of Food Science and Technology,

University of Sri Jayawardenepura,

Nugegoda,

Sri Lanka.

....5 | 5 | 2009........

Supervisor   Date

Mrs. Indira Wickremasinghe

Department of Food Science and Technology,

University of Sri Jayawardenepura,

Nugegoda,

Sri Lanka.

AFFECTIONATELY

DEDICATED

TO

MY DEAR PARENTS

TABLE OF CONTENT

Page No.

Chapter 03 Materials and Method

LIST OF TABLES

LIST OF FIGURES

LIST OF PLATES

ACKNOWLEDGEMENT

First and foremost I convey my sincere thanks to Prof. Arthur Bamunuarachchi, Department of Food Science, University of Sri Jayawardenepura, Nugegoda, for his constructive criticisms appropriately made.

I would like to express my sincere gratitude to Mrs. Indira Wickremasinge, Mr. Jagath Wansapala for their genuine patronage in all matters during the study.

I am thanking with my deep sense of gratitude to Dr. Ranaweera. Head of Department of Food Science, University of Sri Jayawardenepura, Nugegoda. For providing me the opportunity to conduct this research in the Food Science Department.

I express my sincere thanks to Mr. Hemantha Kumara, Ms. Ganag, Ms Asha, Ms Waruni, Mrs. Indira, and Mr. Chinthaka for their valuable support given to conduct this research.

I wish to thanks all members of the staff of the faculty of food science and technology who helped me in numerous ways in the process of conducting research in the laboratory.

Finally, my deepest gratitude and thanks are due dearest parents, brothers, and the better half – Rajni, for their kind to tolerated, assisted and encouraged me to overcome all obstacles and reaching the goal.

Title – Development of Fish Sausage with added Vegetables

Premakeerthi P.K.W.H.

ABSTRACT

Fish protein is increasingly favored over meat proteins because of low fat content presence of omega-3 Fatty acids and less social religious stigma attached to the usual use of fish etc.. Many underutilized species of fish following filleting operations could be utilized for further processing of high quality protein products. For the last few years that pressure to reduce the fat content of four diets and to consume healthier food has become increasingly strident. Demand for instant food products, such as sausages with having nontraditional ingredients have been increasing over resent years. The objectives of this study were to prepare a novel fish based low fat sausages with added fiber. Two samples of the sausages were prepared by changing the method of addition of ingredients as dry and wet form. It was prepared by collecting locally available fish and one other ingredient. Panelists selected as the sample of the sausages which prepared in wet form. Samples were kept under-04^0C condition and quality evaluation was carried out twice a month and other analyses were carried out according to the requirement.

Highest value the obtained for crude protein (16.83%), crude fat (06.35%), crude fiber (03.67%) and moisture (36.54%) for the sample which is prepared in wet form. Microbiological analysis revealed that the total plate count was also lower(10^3) than the accepted level (10^6)and it was found that the product was microbiologically safe.

pH value, FFA and Peroxide values were also not significantly increased ($P<0.05$) with compared to the other tested sample.

There were significant difference ($P<0.05$) reported for the sensory parameters, ie. For overall acceptability (04.6), appearance (04.2), color (04.5), texture (04.3), for the sample prepared in wet form