STUDIES ON THE EXPIRATION PERIOD AND QUALITY ATTRIBUTES OF SOME FISH PRODUCTS

BY

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B.Sc. (Food Science and Technology), Faculty of Agriculture,

Ain Shams University, 1993

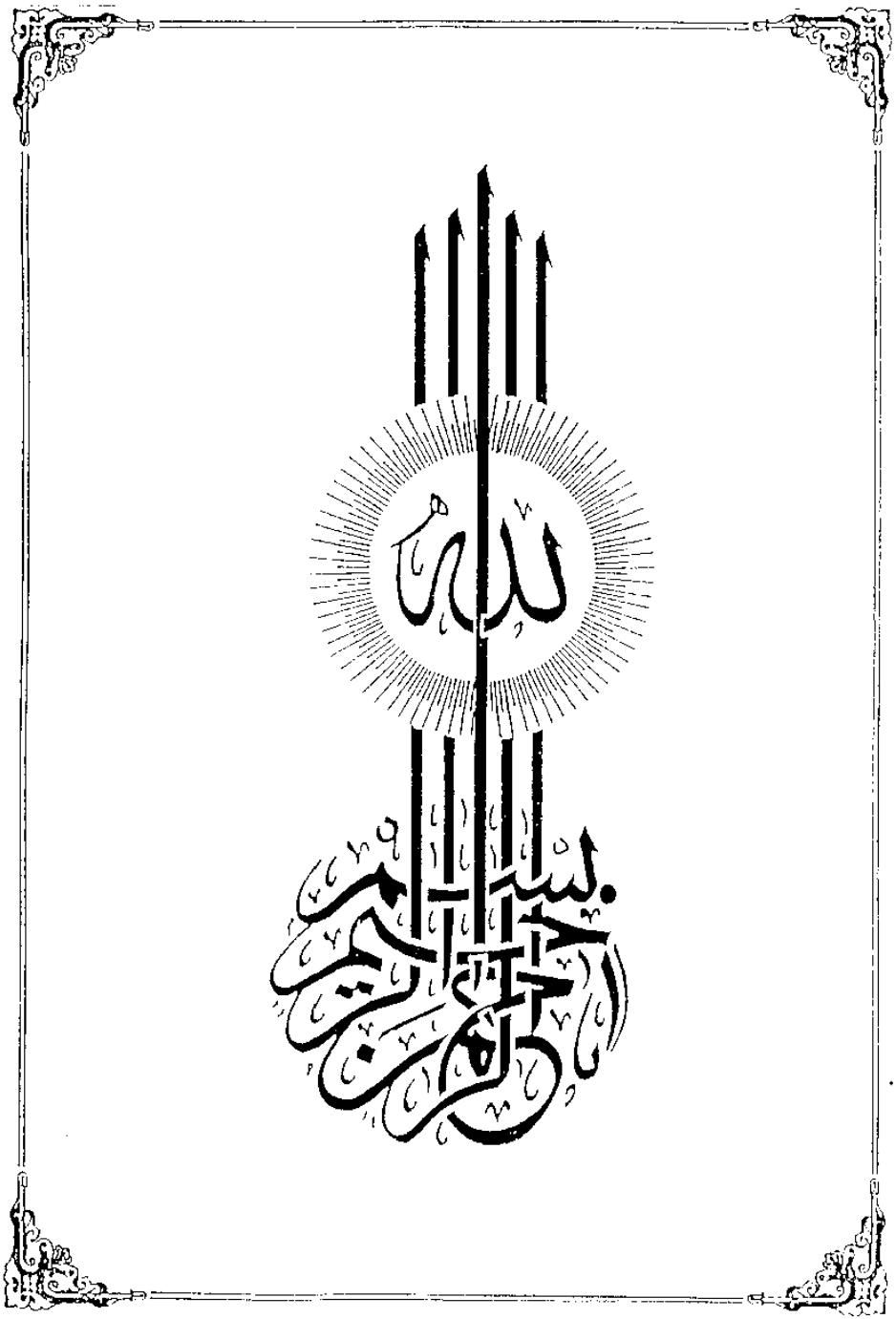
A thesis submitted in partial fulfillment of

the requirements for the degree of
Master of Science
in

Agriculture
(Food Science and Technology)

Department of Food Science
Faculty of Agriculture
Ain Shams University

1997



APPROVAL SHEET

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ABSTRACT

NESSRIEN MOHAMED NABIH YASIN AHMED, STUDIES ON THE EXPIRATION PERIOD AND QUALITY ATTRIBUTES OF SOME FISH PRODUCTS. Unpublished Master of Science, University of Ain Shams, Faculty of Agriculture, Department of Food Science, 1997.

The nature of changes that occur upon different processing and storage conditions of mullet fish and estimating the expiration periods of these products were investigated in details. The present study included the effect of some preservation methods such as chilling, freezing and smoking as well as soaking treatments for retarding microbial activity and/or lipid deterioration on the quality of mullet fish. Soaking treatment in a solution containing 5 % $Na_4P_2O_7$ + 5 % KS + 2 % Na citrate + 0.2 % ascorbic acid prior to chilling storage at 3°C increased the expiration period of mullet fish from 9 days for the control samples up to 15 days for the soaked ones. Also, soaked fish samples always have the best quality during cold storage when compared with the other treatments. Moreover, marketing losses of mullet fish were discussed.

The other suggested soaking treatment (5% $Na_4P_2O_7$ + 2 % Na citrate + 0.2 % ascorbic acid) prior to frozen storage improved the quality of mullet fish and retarded lipid oxidation.

By using step-wise regression analysis high accurrate estimation equations for determining the length of chilling and freezing storage periods could be predicted.

The effect of pre-smoking operations on the proximate composition and quality attributes of mullet fish was described. Smoked mullet fish could be stored as long as 120 days at room temperature.

Key Words : Expiration period, Chilling, Freezing, Smoking, Soaking, Marketing, Step-wise regression, Mullet fish.

ACKNOWLEDGMENT

All praises are due to God, who blessed me with kind professors and colleagues, and gave me the support to produce this thesis.

I wish to express my deepest gratitude to prof. Dr. I. M. Hassan, Professor of Food Science and Technology, Faculty of Agriculture, Ain Shams University for his supervision, helps, valuable suggestions and continuous encouragement during this study.

Deepest thanks and sincere appreciations to Prof. Dr. Lila E. Abd-El Fattah, Professor of Analytical Chemistry, Faculty of Pharmacy, Cairo University for her supervision, encouragement and sincere support.

My deepest sincere appreciations to Dr. M. F. Khallaf, Associate Professor of Food Science and Technology, Faculty of Agriculture, Ain Shams University for supervising this work, attention, and efforts made through the course of the implementation of this thesis.

Thanks to Prof. Dr. H.S. El-Saadany, Prof. of Economic, Agriculture Economic Dept., Fac. of Agric., Ain Shams Univ., for his helps in estimating marketing losses of mullet fish.

Thanks are also to Dr. H.M. Mansour, Professor of Animal Breeding, Agriculture Animal Production Dep., Faculty of Agric., Ain Shams Univ., for his sincere help in the computer analysis of the obtained data.

Thanks to all members of the Food Science Department, Faculty of Agriculture, Ain Shams University should be considered

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