CHANGES IN PROXIMATE COMPOSITION AND SALT CONTENT OF DUCK EGGS AS INFLUENCED BY SALTING

AINNUR ATIRA BINTI MOHAMMAD SERI

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UniversitiTeknologi Mara

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This Final Year Project Report entitled "**Changes in Proximate Composition and Salt Content of Duck Eggs as Influenced by Salting**" was submitted by Ainnur Atira binti Mohammad Seri, in partial fulfillment of the requirements for the Degree of Bachelor of Science (Hons.) Biology, in the Faculty of Applied Sciences, and was approved by

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Amirah binti Sharif
Supervisor
B. Sc. (Hons.) Biology
Faculty of Applied Sciences
UniversitiTeknologi MARA
72000 Kuala Pilah Negeri Sembilan

_____

Ilyanie binti Hj. Yaacob
Project Coordinator
B. Sc. (Hons.) Biology
Faculty of Applied Sciences
UniversitiTeknologi MARA
72000 Kuala Pilah
Negeri Sembilan

_____

Dr.Nor'aishah binti Abu Shah
Head of Programme
B. Sc. (Hons.) Biology
Faculty of Applied Sciences
UniversitiTeknologi MARA
72000 Kuala Pilah
Negeri Sembilan

Date: _____

TABLE OF CONTENTS

ABSTRACT

CHANGES IN PROXIMATE COMPOSITION AND SALT CONTENTOF DUCK EGGS AS INFLUENCED BY SALTING

Salting is one of the most popular preservation methods for eggs. Therefore, there is a need for adequate information on how egg compositions change during the salting period. Fresh duck eggs were obtained and divided into five sampling groups including a group of fresh eggs. All sample groups except the fresh eggs group were immersed in a 30% brine solution (w/v). A sample group was taken out of the brine in the first, second, third and fourth week of salting period respectively. The mean values for the changes in composition were recorded from the start of salting time up to the 28^{th} day of salting. The components of eggs determined were moisture and salt content, oil exudation as well as protein content. Moisture content for both egg white and yolk decreased gradually ($p<0.05$) from 74.28% to 66.97% for egg white and 35.66% to only 7.61% for egg yolk by the end of salting time. Meanwhile, there was a significant increase ($p<0.05$) in the salt content of egg white from 0.78% to 6.46% as the salting time increased. Increase in oil exudation of egg yolk was also observed during salting at $p<0.05$ ranging from 17.99% to 71.20%. Next for protein content, there was an increase ($p<0.05$) in protein concentration during salting for both egg white and yolk. The range of mean values for duck egg white and duck egg yolk were around 1.36 mg/ml to 1.61 mg/ml and 2.79 mg/ml to 8.15 mg/ml respectively. In this study, the gradual change in proximate changes in fresh eggs and eggs salted at different time could be determined.