# SMALL-SCALE PREPARATION AND PRODUCT EVALUATION OF NATIVE CHICKEN (Seeso) FRANKS

THESIS

MA. CONCEPCION BAGUS DALUSONG

COLLEGE OF ACRICULTURE, FORESTRY, ENVIRONMENT AND NATURAL RESOURCES CAVITE STATE UNIVERSITY Indang, Cavita

April 2002

## SMALL-SCALE PREPARATION AND PRODUCT EVALUATION OF NATIVE CHICKEN (Sasso) FRANKS

Undergraduate Thesis
Submitted to the Faculty of the
Cavite State University
Indang, Cavite

In partial fulfillment of the requirements for the degree of Bachelor of Science in Food Technology



Small scale preparation and product avaluation of native chicken (sasso) 641.1 D17 2002 T-2433

MA. CONCEPCION BAGUS DALUSONG April 2002

#### ABSTRACT

DALUSONG, MA. CONCEPCION BAGUS. Small-scale Preparation and Product Evaluation of Native Chicken (Sasso) Franks. Undergraduate Thesis. Bachelor of Science in Food Technology. Cavite State University, Indang, Cavite. April 2002. Adviser: Prof. Fe N. Dimero.

A study entitled "Small-scale Preparation and Product Evaluation of Native Chicken (Sasso) Franks was conducted at the Institute of Food Science and Technology from November 2001 to February 2002. This study was conducted to develop a formulation and processing technology for native chicken franks; compare native chicken franks with chicken franks made from broilers; and evaluate the sensory, proximate nutritional composition and cooking properties of the samples. The consumer acceptance and production cost and return of the product were also evaluated.

The following small-scale processing technology for Sasso native chicken franks was generated.

For every kilogram of native chicken meat, the following ingredients were used; ¼ cup very finely minced onion, 1 small clove garlic, 1 tsp. finely ground coriander, ½ tsp. dried marjoram, ½ tsp. ground mustard seed, ½ tsp. freshly fine ground white pepper, ¼ tsp. smoke flavor, 2 egg white, 3 tbsp. sugar, 1 tbsp. salt, ¼ tsp. MSG, ½ tsp. paprika, ¼ cup milk and ¼ cup TVP. Native chicken meat was cut, ground and mixed with the ingredients. Curing was done overnight in the refrigerator and the mixture was divided into 125 grams-portion each and stuffed in the hog casing. The franks were pressure cooked at 121°C for 10 minutes. The prepared samples were sealed in polyethylene bag at approximately 500g/pack, with vacuum packing.

Native chicken franks produced were light brown in color, had highly perceptible chicken flavor, moderately juicy and tender, characteristics which made native chicken franks more acceptable than the broiler franks.

Moisture content and crude fat content of sasso native chicken franks were higher that the broiler franks.

Sasso chicken franks produced by the generated technology cost P311.34/kilo.

### TABLE OF CONTENTS

rage
BIOGRAPHICAL DATA iii
ACKNOWLEDGMENTiv
ABSTRACT
TABLE OF CONTENTS
LIST OF TABLES
LIST OF APPENDIX FIGURES xii
INTRODUCTION
Importance of the Study
Objectives of the Study
Time and Place of the Study
Scope and Limitations of the study
REVIEW OF RELATED LITERATURE 4
Sasso Native Chicken
Franks
Composition of Poultry Meat
Moisture Content
Calories
Proteins
Lipids
Poultry Flavor

Water Holding Capacity of Poultry Meat
Stuffing
MATERIALS AND METHODS
Selection of Raw Materials
Preparation of Native Chicken Franks
Experimental Design
Preparation of Sample
Sensory Evaluation
Chemical Analysis
Cooking Properties
Consumer Test
Statistical Analysis
Production Cost
RESULTS AND DISCUSSIONS
Processing Technology
Sensory Evaluation
Chemical Evaluation
Cooking Properties
Consumer Test
Production Cost
SUMMARY, CONCLUSION AND RECOMMENDATION
Summary 26

Conclusion	
Recommendation	
LITERATURE CITED	
APPENDICES	

### LIST OF TABLES

Table		Page
1	Mean sensory scores for color, meat flavor, juiciness, tenderness, off-flavor and general acceptability of chicken franks	17
2	Chemical composition of fresh native chicken, native chicken franks, fresh broiler meat and broiler franks	19
3	Cooking properties of chicken franks	21
4	Consumer perception of the acceptability of native chicken franks	22
5	Meat yield and their corresponding prices	24
6	Production cost and yield of native chicken franks per ten (10) kilograms	25

### LIST OF APPENDIX FIGURES

Figure		Page
1	Native chicken (sasso) approximately one year of age	47
2	Deboning of the chicken	48
3	Grinding of the chicken meat	49
4	The ingredients used in the preparation of franks	50
5	Pressure cooking of the cured chicken meat	51
6	The finished product	52
7	Vacuum packing of the finished product	53
8	The panelists during the sensory evaluation	54
9	The samples subjected to crude fat analysis	55
10	Determination of crude protein (Digestion)	56
11	Determination of crude protein (Distillation)	57
12	Determination of crude protein (Titration)	58

# SMALL-SCALE PREPARATION AND PRODUCT EVALUATION OF NATIVE CHICKEN (SASSO) FRANKS

#### Ma. Concepcion B. Dalusong

A thesis manuscript presented to the faculty of the Institute of Food Science and Technology, College of Agriculture, Forestry, Environment and Natural Resources, Cavite State University, Indang, Cavite in partial fulfillment of the requirements for graduation with the degree of Bachelor of Science in Food Technology with Contribution No. BSFT- 2002-05-075. Prepared under the supervision of Prof. Fe N. Dimero.

#### INTRODUCTION

Native chicken is the common barnyard chicken being raised by farmers in the backyard of their barrio residence as a source of food and additional income. It can be used in making franks because native chicken meat could be a good source of protein in franks considering that native chicken meat has significantly more intense chicken flavor as compared to broiler chicken. It is also useful and provides the same delicious product.

Franks are cured cooked sausages, which may be skinless or stuffed in a casing. This product is commonly made from beef and pork. It is the most popular of all cooked sausages (Freeman, 1960), therefore developing native chicken franks would not only mean extra income to farmers but also as important source of much-needed protein in the diet.

The study deal with the preparation and evaluation of native chicken franks.