


**“MICROBIAL QUALITY OF SELECTED STREET FOODS OUTSIDE  
DLSU-D”**



An Undergraduate Research Proposal  
Presented to  
The Faculty of the Biological Sciences Department  
College of Science  
De La Salle University – Dasmariñas

In Partial Fulfillment  
of the Requirements for the Degree  
Bachelor of Science in Biology  
(major in Human Biology)

Dian C. Lagamayo  
Roldan A. Saulog

March 2010

## ABSTRACT

Street foods are usually exposed foods in the environment that make them more vulnerable to contamination. The purpose of the study was to evaluate bacterial contamination in selected street foods available outside DLSU-D. The total bacterial count in animal-derived street food was determined in siomai, batter-coated chicken internal organ and takoyaki with a range of 600- 13,000 cfu/g. Likewise, the total count of coliforms, *Escherichia coli*, *Staphylococcus aureus* and *Salmonella* spp. in the same food samples were determined. The samples were negative for pathogenic bacteria such as *Salmonella* spp. and *Staphylococcus aureus* but only coliforms in which *Escherichia coli* particularly, was confirmed. Although the degree of contamination did not go beyond the standards, the result of having coliforms in the sample indicated poor quality food preparation that needs compliance to strict sanitary measures.

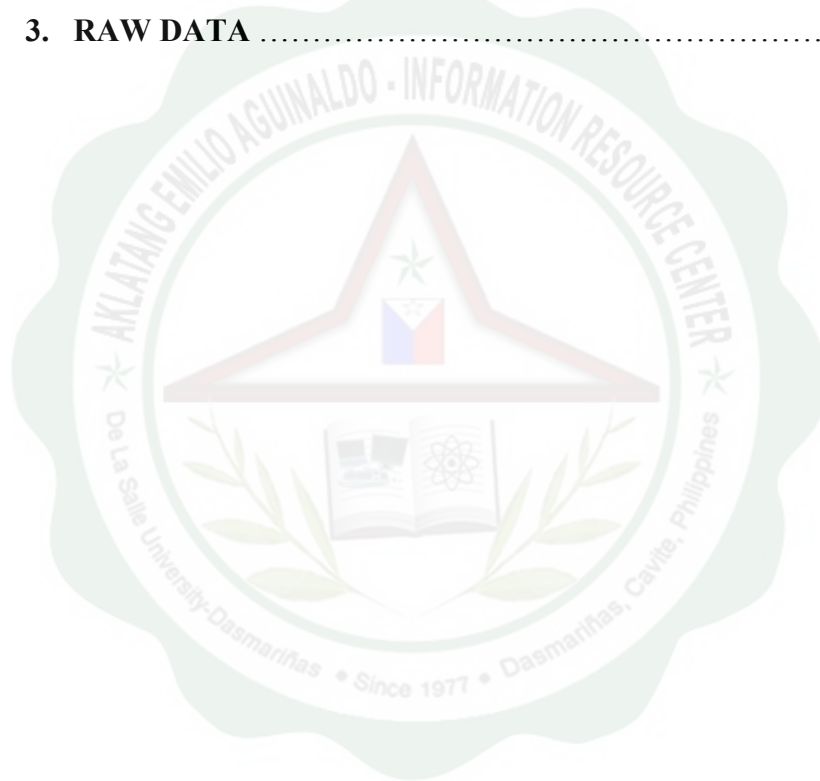
## TABLE OF CONTENTS

<b>TITLE PAGE</b> .....	1
<b>APPROVAL SHEET</b> .....	2
<b>ABSTRACT</b> .....	3
<b>ACKNOWLEDGEMENTS</b> .....	4
<b>DEDICATION</b> .....	5
<b>TABLE OF CONTENTS</b> .....	6
<b>LIST OF TABLES</b> .....	8
<b>LIST OF FIGURES</b> .....	9
<b>LIST OF PLATES</b> .....	10
<b>1.0. INTRODUCTION</b> .....	11
<b>1.1. Background of the Study</b> .....	11
<b>1.2. Theoretical/Conceptual Framework</b> .....	12
<b>1.3. Objectives of the Study</b> .....	13
<b>1.4. Scope and Delimitation</b> .....	13
<b>1.5. Significance of the Study</b> .....	14
<b>1.6. Definition of Terms</b> .....	14
<b>2.0. REVIEW OF LITERATURE</b> .....	16
<b>2.1. Conceptual Literature</b> .....	16
<b>2.2. Related Studies</b> .....	19

<b>3.0. METHODOLOGY</b> .....	22
<b>3.1. Research Design</b> .....	22
<b>3.2. Research Setting</b> .....	22
<b>3.3. Research Procedure</b> .....	23
<b>3.4. Data Gathering</b> .....	25
<b>4.0. RESULTS AND DISCUSSION</b> .....	27
<b>5.0. CONCLUSION AND RECCOMENDATION</b> .....	33
<b>6.0.LITERATED CITED</b> .....	35
<b>7.0.APPENDICES</b> .....	41
<b>7.1. Standard Procedures</b> .....	41
<b>7.2. MPN table</b> .....	52
<b>7.3. Standard Contamination load</b> .....	53
<b>7.4. Raw data</b> .....	55
<b>7.5. Photo documentation</b> .....	64
<b>7.6. Map</b> .....	66
<b>8.0. CURRICULUM VITAE</b> .....	67

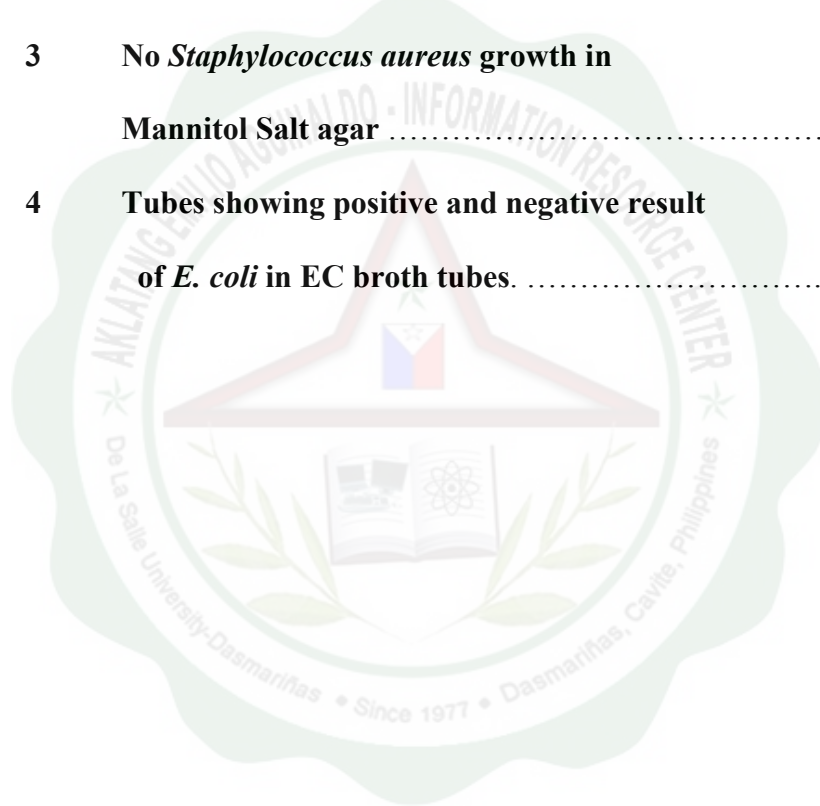
## LIST OF TABLES

Table	Page
1. Standard Contamination Load on MEAT & POULTRY PRODUCTS.....	53
2. Guidelines for the microbiological examination of ready – to – eat foods .....	54
3. RAW DATA .....	55



## LIST OF FIGURES

<b>Figure</b>		<b>Page</b>
<b>1</b>	<b>Total bacteria count in Plate Count Agar .....</b>	<b>64</b>
<b>2</b>	<b>No Salmonella growth in Xylose Lysine Deoxycholate agar .....</b>	<b>64</b>
<b>3</b>	<b>No <i>Staphylococcus aureus</i> growth in Mannitol Salt agar .....</b>	<b>65</b>
<b>4</b>	<b>Tubes showing positive and negative result of <i>E. coli</i> in EC broth tubes. ....</b>	<b>65</b>



## LIST OF PLATES

Plate	Page
1	Map of Sampling Site.....46



### Chapter 1

## INTRODUCTION