PHYTOCHEMICAL ANALYSIS OF Pansit-pansitan (Peperomia pellucida) EXTRACT

An Undergraduate Thesis
Presented to the faculty of the
Department of Physical Sciences
College of Arts and Sciences
Cavite State University
Indang, Cavite

In partial fulfillment of the requirements for the degree of Bachelor of Science in Chemistry



Phytochemical analysis of pansit-pansitan (Peperomia pellucida) extract 581.634 H87 2000 T-2051

HAZEL BLANCAS HUGO March 2000

ABSTRACT

HUGO, HAZEL BLANCAS, "Phytochemicals Analysis of Pansit-pansitan (Peperomia pellucida) Extract". B.S. Thesis, Bachelor of Science in Chemistry, March 2000 Cavite State University, Indang Cavite. Adviser: Ms. Chona G. Tibayan

A study on "Phytochemical Analysis of Pansit-pansitan (*Peperomia pellucida*) Extract" was conducted at the Department of Physical Science Laboratory of Cavite State University and Standard and Testing Division of Department of Science and Technology from December 1999 to February 2000 to determine the chemical constituents of Pansit-pansitan extract and to determine the percentage composition of the different chemical constituents of Pansit-pansitan extract.

Pansit-pansitan extract was analyzed for Glycosides, Saponins, Tannins and Alkaloids. The percentage composition of these constituents were determined using gravimetric method. Thin Layer Chromatography was used to determine the chemical constituents and to determine the number of components based on their respective spots and R_f value.

The extract has the following characteristics: each chemical constituents are generally dark brown as visualized under UV light.

Three chemical constituents was found in the Preliminary Tests and Thin Layer Chromatography. These are the Glycosides, Tannins and Saponins. The boiling point of the extracts ranged from 71°C to 72°C. Based on the percentage composition, Glycosides is the most abundant (2.6%) constituents as compared to Tannins (2.53%), Saponins (2.3%). The R_f value for Saponins are 0.9093 in Plate 1 and 0.0812 in Plate 2;

for Tannins are 0.0906 and 0.0531 in Plate 1; 0.0343 and 0.4250 in Plate 2 and for Glycosides are 0.2375 in Plate 1 and 0.4343 in Plate 2.

TABLE OF CONTENTS

	PAGE
BIOGRAPHICAL DATA	iii
ACKNOWLEDGMENT	iv
ABSTRACT	vi
LIST OF FIGURES	X
LIST OF TABLES	xi
LIST OF APPENDICES	xii
LIST OF APPENDIX TABLES	xiii
INTRODUCTION	1
Objective of the Study	2
Importance of the Study	2
Scope and Limitation	2
REVIEW OF RELATED LITERATURE	3
MATERIALS AND METHODS	13
Materials	13
Collection of the Sample	13
Preparation of the Plant Extract	13
Preliminary tests of the Samples	13
Quantitative determination	16
Boiling Point of the Chemical Constituents	19
Thin Layer Chromatography	20
RESULTS AND DISCUSSION	21

SUMMARY, CONCLUSION AND RECOMMENDATION	27
Summary	28
Conclusion	28
Recommendation	28
LITERATURE CITED	29
APPENDICES	31