MOSQUITO REPELLENT CANDLE FROM NEEM TREE AND INDIAN TREE LEAVES

Research Study

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ABSTRACT

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This research study was conducted in Amadeo, Cavite and Indang, Cavite from December 2012 to January 2013 in order to produce mosquito repellent candle using indian tree and neem tree extracts; determine the physical properties of the produced candles; and evaluate the effectiveness of the candle. The study also analyzed the presence of phytochemicals in both Neem and Indian tree leaves.

This study was conducted in Randomized Complete Block Design (RCBD) with four treatments replicated four times. The treatments used were T_0- control; T_1- 150 g of paraffin wax, 7 grams of neem tree leaves and 3 grams of indian tree leaves; T_2- 150 g of paraffin wax, 5 grams of neem tree leaves and 5 grams of indian tree leaves; T_3- 150 g of paraffin wax, 3 grams of neem tree leaves and 7 grams of indian tree leaves.

It was revealed that treatment 2 is the best treatment of all in terms of odor according to the respondents' choice. In terms of color, treatment 0 ranked first. Treatment 1 is the best among all the treatments in terms of texture. All treatments in terms of general acceptability were preferred by the respondents and was rated as moderately acceptable.

Treatment 1 was observed to be the best among all treatments in terms of effectiveness. But among all treatments, only treatment 0 appeared to be ineffective.

TABLE OF CONTENTS

	Page
BIOGRAPHICAL DATA	iii
ACKNOWLEDGMENT	v
ABSTRACT	vii
TABLE OF CONTENTS	viii
LIST OF TABLES	xi
LIST OF APPENDICES	xii
LIST OF APPENDIX TABLES	xiii
LIST OF PLATES	xv
INTRODUCTION	1
Statement of the Problem	3
Objectives of the Study	4
Importance of the Study	5
Scope and Limitations of the Study	5
Time and Place of the Study	6
REVIEW OF RELATED LITERATURE	7
METHODOLOGY	18
Materials	18
Tools and Equipment	18
Experimental Design	19
Procurement of Materials	19

Preparation of Materials..... 19

Preparation of Cage..... 20

Division of Cage into Zones..... 20

Breeding of Mosquitoes..... 21

Production of Neem tree and Indian tree Powdered Leaves..... 21

Preparation and Production of Candles..... 21

Phytochemical Test Procedure..... 22

Sensory Characteristics of the Candle..... 25

Test for Effectiveness..... 26

Statistical Analysis..... 26

Determining Cost of Production..... 26

RESULTS AND DISCUSSIONS..... 27

First Ten Minutes of Exposure..... 27

Second Ten Minutes of Exposure..... 29

Third Ten Minutes of Exposure..... 31

Results for Phytochemical Properties of Neem Tree and Indian Tree Leaves 33

Odor..... 33

Texture..... 34

General Acceptability..... 35

Cost of Production..... 35

SUMMARY, CONCLUSION, AND RECOMMENDATION..... 37

Summary..... 37

Conclusions..... 38

Recommendations..... 39

REFERENCES..... 41

APPENDICES..... 43

APPENDIX TABLES 48

PLATES..... 57

LIST OF TABLES

Table		Page
1	Number of Mosquitoes observed at different zones in the cage for 10 minutes	28
2	Number of Mosquitoes observed at different zones in the cage for 20 minutes	30
3	Number of Mosquitoes observed at different zones in the cage for 30 minutes	32
4	Results of phytochemical test on Neem tree leaves and Indian tree leaves	33
5	Friedman analysis of variance table for odor of mosquito repellent	34
6	Friedman analysis of variance table for texture of mosquito repellent	34
7	Friedman analysis of variance table for general acceptability of mosquito repellent	35
8	Cost of Production	35

LIST OF APPENDICES

Appendix		Page
A	Sensory Evaluation Sheet	44
B	Report of Analysis	46

LIST OF APPENDIX TABLES

Appendix Table		Page
1	Analysis of variance table for number of mosquitoes repelled in zone 1 for 10 minutes	49
2	Analysis of variance table for number of mosquitoes repelled in Zone 2 for 10 minutes	49
3	Analysis of variance table for number of mosquitoes repelled in Zone 3 for 10 minutes	50
4	Analysis of variance table for number of mosquitoes repelled in Zone 4 for 10 minutes	50
5	Analysis of variance table for number of mosquitoes repelled in Zone 5 for 10 minutes	51
6	Analysis of variance table for number of mosquitoes repelled in Zone 1 for 20 minutes	51
7	Analysis of variance table for number of mosquitoes repelled in Zone 2 for 20 minutes	52
8	Analysis of variance table for number of mosquitoes repelled in Zone 3 for 20 minutes	52
9	Analysis of variance table for number of mosquitoes repelled in Zone 4 for 20 minutes	53
10	Analysis of variance table for number of mosquitoes repelled in Zone 5 for 20 minutes	53
11	Analysis of variance table for number of mosquitoes repelled in Zone 1 for 30 minutes	54
12	Analysis of variance table for number of mosquitoes repelled in Zone 2 for 30 minutes	54
13	Analysis of variance table for number of mosquitoes repelled in Zone 3 for 30 minutes	55

14 Analysis of variance table for number of mosquitoes repelled in Zone 4 for 30 minutes 55

15 Analysis of variance table for number of mosquitoes repelled in Zone 5 for 30 minutes 56

LIST OF PLATES

Plate		Page
1	The paraffin wax	58
2	The mosquito cage	58
3	Neem tree leaves	59
4	Indian tree leaves	59
5	Melting the paraffin wax	60
6	Pouring the mixture	60
7	The produced candles	61
8	Respondents evaluating the produced candles	61
9	The lighted candle	62
10	Testing the effectiveness of repellent candle	62

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INTRODUCTION

Insects are the most abundant forms of animal life on earth. They are found almost everywhere on earth and destined to remain here even after 250 million years (Sanosafe, 1984; Beaño Cordez, and Ronio, 2005).

Insects may be harmful and can cause great economical losses by damaging valuable plants, spreading diseases, and sometimes death to both human and animals. A mosquito is an example of this kind of insect.

Mosquitoes are small delicate two-winged flies. Several species are carriers of disease such as malaria, filariasis, dog earthworm, arbovial encephalitis, and yellow fever. These harmful insects are found everywhere on earth except in the ice bound areas with deviation of 12-14 thousand feet. Their vast multiplication is influenced by environmental factors such as light, temperature, and humidity. *Aedes aegypti* is a kind of mosquito that brings diseases (Demaunahan, 1994).