

**EFFECTIVENESS OF CANDLES WITH PANDAN AND LEMONGRASS  
SCENT IN REPELLING MOSQUITOES**

**Research Study**

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**EFFECTIVENESS OF CANDLES WITH PANDAN AND LEMONGRASS SCENT  
IN REPELLING MOSQUITOES**

A Research Study  
Submitted to the faculty of the  
Science High School, College of Education,  
Cavite State University, Indang, Cavite

In partial fulfillment of the requirements for graduation



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## ABSTRACT

**CRUZATE, RIANNE A., POQUIZ, AARON DALE P., and VALDEZ, KYLE WIFRED L.** **Effectiveness of candles with pandan and lemongrass scent in repelling mosquitoes.** Applied Research III Science High School, College of Education, Cavite State University, Indang, Cavite, May 2017. Adviser: Engr. Cene Bago.

The study entitled “Effectiveness of candles with pandan and lemongrass scent in repelling mosquitoes” was conducted at Asama Homes, Indang, Cavite to produce scented candles with pandan and lemongrass scent. It also aims to determine which of the treatments is the most scented in the candles with pandan and lemongrass extract, which treatment is the most effective treatment, level of effectiveness of the produced candles, and the cost of production in producing the scented candles with pandan and lemongrass scent

The researchers used the following treatments in conducting their study: T0: Control treatment (Commercial Candles), T1: 100 percent of lemongrass extract, T2: 70 percent of lemongrass extract and 30 percent of pandan extract, T3: 50 percent of lemongrass extract, 50 percent of pandan extract, T4: 30 percent of lemongrass extract, 70 percent of pandan extract, T5: 100 percent of pandan extract.

The pandan and lemongrass leaves were gathered from the researchers’ backyards and then they were washed thoroughly. Next, the leaves were cut into strips and pounded. It was infused in oil later on. The extracts were set aside and the wax was melted in a used can that was in a saucepan with boiling water and then the extracts were mixed. The wax solution was then poured unto the molder and set aside to cool. Then the candles

were ready for evaluation. The most scented candle is treatment 1 with the concentration of 10 ml of lemongrass extract. The best produced candle is treatment 1 that has an effectiveness ranked as very effective. For the acceptability of the candles in terms of scent, the best treatment is treatment 1, ranked as highly acceptable according to the respondents with a mean of 3.50. The cost of production is P180.00 which can produce 15 candles.

Collection and Preparation of Materials.....	20
Preparation of Pandan Extract.....	20
Preparation of Lemongrass Extract.....	20
Preparation of Cage.....	20
Preparation of Wax Solution.....	21
Division of Cage into Zones.....	21
Production of Candles.....	22
Breeding of Mosquitoes.....	22
Data to be Gathered.....	22
Statistical Analysis.....	22
<b>RESULTS AND DISCUSSION.....</b>	<b>24</b>
Scent .....	24
Effectiveness of the candles.....	25
<b>SUMMARY, CONCLUSIONS AND RECOMMENDATIONS.....</b>	<b>27</b>
Summary.....	27
Conclusions.....	28
Recommendations.....	29
<b>REFERENCES.....</b>	<b>30</b>
<b>APPENDICES.....</b>	<b>32</b>

## LIST OF TABLES

Table		Page
1	Acceptability of the scent per treatment .....	25
2	First ten minutes of exposure of the scented candles to the mosquitoes.....	25
3	Second ten minutes of exposure of the scented candles to the mosquitoes.	26
4	Third ten minutes of exposure of the scented candles to the mosquitoes...	26

## LIST OF APPENDIX TABLES

Appendix Table	Page
1 Third ten minutes of exposure of the scented candles to the mosquitoes .....	36

## LIST OF PLATES

Plate		Page
1	Gathered and chopped pandan leaves.....	38
2	Gathered and chopped lemongrass leaves.....	38
3	Wax used in making the candles .....	39
4	Candle wicks .....	39
5	Candle molder .....	40
6	Commercial Candles .....	40
7	Cages used in the study.....	41
8	Breeding of mosquitoes.....	41
9	Saucepan .....	42
10	Used can .....	42
11	Metal spoon .....	43
12	Weighing scale .....	43
13	Pails .....	44
14	Scissors .....	44
15	Mortar and Pestle .....	45
16	Knife .....	45



17	Pounded pandan leaves .....	46
18	Pounded lemongrass leaves .....	46
19	Preparation of wax solution and mixing the extract .....	47
20	Pouring the solution unto the candle molder .....	47

## LIST OF APPENDICES

APPENDIX	Page
1 Evaluation Sheet (Scent) .....	34
2 Statistical Analysis.....	36
3 Plates.....	38
4 Diagram of the cage.....	48

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## INTRODUCTION

Insects (from Latin *insectum*, a calque of Greek έντομον [*éntomon*], "cut into sections") are a class of invertebrates within the arthropod phylum that have a chitinous exoskeleton, a three-part body (head, thorax and abdomen), three pairs of jointed legs, compound eyes and one pair of antennae. They are the most diverse group of animals on the planet, including more than a million described species and representing more than half of all known living organisms. Insects may be found in nearly all environments, although only a small number of species reside in the oceans, a habitat dominated by another arthropod group, crustaceans.

Many insects are considered pests by humans. Insects commonly regarded as pests include those that are parasitic (e.g. lice, bed bugs), transmit diseases (mosquitoes, flies), damage structures (termites), or destroy agricultural goods (locusts, weevils).  
([en.wikipedia.org](http://en.wikipedia.org))