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TERMINATION OF INSECTICIDAL ACTIVITY FROM
SULAST (*Ocimum sanctum* Linn.) LEAVES

THESIS

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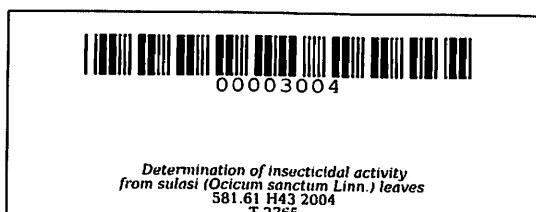
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DETERMINATION OF INSECTICIDAL ACTIVITY FROM SULASI
(*Ocimum sanctum* linn.) Leaves¹

**An undergraduate Thesis
Presented to the Faculty of the
Cavite State University**

**In Partial Fulfillment
of the Requirements for the Degree
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ABSTRACT

HERNANDEZ, KAARA KATISHE R. and PANGANIBAN, RIOBETH M., “Determination of Insecticidal Activity from Sulasi (*Ocimum Sanctum* Linn.) Leaves”, an undergraduated thesis of the Bachelor of Science in Chemistry, _____, Cavite State University, Indang, Cavite. Adviser: Mrs. Ammie P. Ferrer.

This study was conducted to determine the insecticidal activity of sulasi crude extract against *A. egypti*. Specifically, it aimed to perform extraction of crude extract from sulasi leaves, determine the effectiveness against *A. egypti* through bioassay, compare the effectiveness of crude extract to bayothrin (baygon), a commercial insecticides, determine the physical properties of the active crude extract and perform the phytochemical test of active crude extract of sulasi leaves.

Two kilograms of coarsely ground sulasi leaves were collected from Bailen, Cavite on July, 2003 and were extracted through sequential extraction from different solvent of increasing polarity: petroleum ether, dichloromethane, 1:1 (v/v) chloroform-methanol, methanol and water. The crude extract yield of petroleum ether, dichloromethane, chloroform-methanol, methanol and water was calculated to be 2.0165%, 2.1375%, 1.916%, 2.0125% and 2.761% respectively.

The crude extract has the properties of dark green, smooth texture and menthol scent. It is insoluble in water but soluble in all organic solvents (carbon tetrachloride, acetone, methanol, dichloromethane, chloroform, ethanol and hexane) at room temperature. This indicates that the sulasi crude extract were non-polar due to its solubility characteristics.

Phytochemical screening showed that the sulasi crude extract contained organic compounds such as alkaloids, tannins and flavonoids; whereas, insecticidal analysis showed that the sulasi crude extract exhibited insecticidal activity against *A. egypti*.

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An undergraduate thesis presented to the Faculty of the Physical Science Department College of Arts and Sciences, Cavite State University, Indang, Cavite in Partial fulfillment of the requirement for the degree of Bachelor of Science in Chemistry. Department Contribution No. _____. Prepared under the supervision of Mrs. Ammie P. Ferrer.

INTRODUCTION

In nature, plants protect themselves against insect attack mainly by mechanical and chemical defenses. Mechanical defense includes formation of a thick cuticle, which prevents insect from picking food or laying eggs. Chemical defenses are highly developed in plants in the form of secondary metabolites (Amita Pal).

As much as possible used specific pesticides that have minimum side effects in killing particular pests. There is considerable legislative pressure in most countries to restrict pesticides that have been demonstrated to be sources of actual or potential hazards to wildlife or to humans that persist in the environment. Choosing the best insecticide is one of the most crucial decisions in insect pest management.