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BIOCHEMICAL SCREENING OF THE PURIFIED EXTRACT
FROM BUNGA DE JOLO (*Areca catechu* Linn.) FRUIT PULP

RESEARCH STUDY

JERSON G. DE JESUS
JORA MARJORIE M. DIMAYUGA
JULIE ANNE F. MERCADO

SCIENCE HIGH SCHOOL
CAVITE STATE UNIVERSITY
Indang, Cavite

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**PHYTOCHEMICAL SCREENING OF THE PURIFIED EXTRACT FROM
BUNGA DE JOLO (*Areca catechu* Linn.) FRUIT PULP**

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*Phytochemical screening of the purified
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**Jerson G. de Jesus
Jora Marjorie M. Dimayuga
Julie Anne F. Mercado**

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ABSTRACT

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The research study was conducted at PSL5 Laboratory Room in the Department of Physical Science Building, College of Arts and Sciences Cavite State University Indang, Cavite from December 2005 to February 2006. The study aimed to: characterize the active constituents from the purified pulp extract of Bunga de Jolo (*Areca catechu* Linn.) through phytochemical screening.

Twenty-five kilograms of Fresh Bunga de Jolo (*Areca catechu* Linn.) fruit pulp was extracted and the constituents were isolated from the pulp by extraction with ethanol and chloroform. The yield of ethanol and chloroform extract was 7.6 percent and 5.9percent, respectively. The CHCl_3 extract was purified by column chromatography and the eluents collected were subjected to Thin Layer Chromatographyt (TLC). It underwent phytochemical screening for alkaloids, cardiac glycosides, saponins, tannins, anthraquinones, and flavonoids.

The results showed that Bunga de Jolo (*Areca catechu* Linn.) Fruit Pulp contained five (5) fractions, which were subjected into phytochemical screening characteristics to detect the presence of important biologically active compounds. The results revealed that all fractions contain alkaloids, which are responsible for its pharmacological actions, and cardiac glycosides that induce heart blockage. These results also showed that fractions 2 and 5 contained saponins using Froth Test, while fractions 1, 2, and 4 contained saponins

through Liebermann-Burchard Test; while tannins, anthraquinones and flavonoids are absent in all fractions.

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A research study submitted to the faculty of Cavite State University Science High School, Secondary Education, Indang, Cavite in partial fulfillment of the requirements for graduation under the supervision of Mr. Rene B. Betonio.

INTRODUCTION

Knowledge of the chemical constituents of plants is described not only for the discovery of therapeutic agents, but also for the gathering of new discoveries of new resources of economic materials.

Commonly known specie of the betel nut is the Bunga de Jolo (*Areca catechu* Linn.). It is very attractive palm tree foer about 10m high with dark leaves and dark ringed trunk. It has fragrant flowers, which forms into orange scarlet fruits about 50mm or 1.2 inch long. This plant can be dissolved in some organic solvents such as alcoho, ether, and water (Quisumbing, 1978).

Through collection and identification under phytochemical screening, the chemical constituents, possible and important uses, and the physical; and chemical properties of the Bunga de Jolo can be determined.