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EXTRACTION OF ESSENTIAL OIL FROM NONI FRUIT

(Morinda citrifolia Linn.)

RESEARCH STUDY

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Indang, Cavite

March 2001

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A Research Study

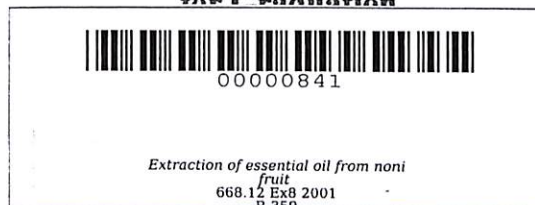
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ABSTRACT

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Adviser: Prof. Dulce L. Ramos

The study entitled "Extraction of Essential Oil From Noni Fruit (*Morinda citrifolia* Linn.)" was conducted at the Physical Sciences Department in Cavite State University and at 263 San Miguel St., Indang, Cavite from October 2000 to February 2001. This study was conducted for the following reasons: (1) extract essential oil from noni fruit; (2) determine how much oil can be extracted from noni fruit; and (3) identify its physical and chemical properties.

The findings of the study revealed that oil can be extracted from noni fruit. The percentage yield was 0.36 percent. The oil was light brown in color and its odor was unpleasant. It was very soluble in ether, slightly soluble in ethyl alcohol, and insoluble in water, benzene and chloroform. The physical and chemical properties of the oil were the following: refractive index = 1.473; specific gravity = 0.82; acid value = 8.26; saponification value = 58.06; and the ester value = 49.80.

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EXTRACTION OF ESSENTIAL OIL FROM NONI FRUIT *(Morinda citrifolia Linn.)*

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A research study presented to the Faculty of the Secondary Education Laboratory School, College of Education, Cavite State University, Indang, Cavite in partial fulfillment of the requirements for graduation under the supervision of Mrs. Dulce L. Ramos.

INTRODUCTION

Essential oils are the odoriferous constituents of plants. They occur in various sites of the plant anatomy; in some cases, they are found throughout the plant organs and in other cases, they are restricted to specific sites. Accordingly, plant materials from which essential oils are obtained include fruits, flowers, leaves, seeds, stems, barks, woods, roots, as well as the whole plant. Essential oil-bearing plants are found in almost every geographic climate ranging from the pines of the cold regions to the spices found near equatorial climes. Essential oils and their role in the perfumery industry have close associations with the history of civilized man. They were utilized in Ancient Egypt, Persia, China and India as archeological finds have recently revealed. Today, formulations based on natural essential oils are encountered in products used in daily life like in beverages, toiletries, cosmetics, foods, paints, varnishes, plastic goods, pharmaceuticals etc. (Practical Manual on Essential Oil Industry).