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ISOLATION OF ANTIBIOTIC-PRODUCING MICROORGANISMS
FROM LOWLAND SOILS

RESEARCH STUDY
Applied Research IV

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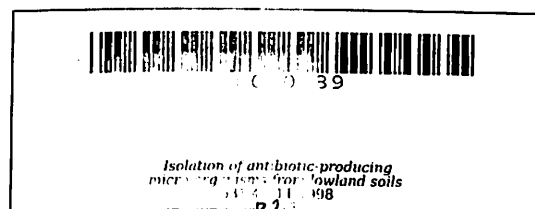
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**ISOLATION OF ANTIBIOTIC-PRODUCING MICROORGANISMS
FROM LOWLAND SOILS**

**A Research Paper Submitted
To the Faculty of the Laboratory School
College of Education of the Cavite State university, Indang, Cavite**

**In Partial Fulfillment of the Requirements
In Applied Research IV**

By



**Arlene D. Racho
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ABSTRACT

Racho, Arlene D., Applied Research IV (General Science Curriculum), Cavite State University, Indang, Cavite, March, 1998. "Isolation of Antibiotic-Producing Microorganisms from Lowland Soils". Advisers: Dr. Yolanda Ilagan and Miss Ermelinda Dimero.

This study was conducted primarily to isolate microorganisms with potential antimicrobial activity and to identify the antibiotic-producing *Bacillus* based on morphological and physiological characterization.

A total of 70 isolates were obtained from the soil samples. Four of the cultures (5.71%) showed antibiotic activity based on cross streak assay . The isolates showed different spectrum of antibiotic activity: none against *Micrococcus luteus*, two against *Bacillus subtilis*, two against *Candida krusei* and one against *Proteus vulgaris*. Isolates were identified as *Bacillus licheniformis* and *Bacillus alvei*.

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ISOLATION OF ANTIBIOTIC-PRODUCING MICROORGANISMS FROM LOWLAND SOIL^{1/}

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^{1/}A research study submitted to the faculty of the Laboratory School of the Cavite State University Indang, Cavite in partial fulfillment of the requirements in Applied Research IV prepared under the supervision of Dr. Yolanda A. Ilagan and Ms. Ermelinda Dimero.

INTRODUCTION

The discovery of antibiotics for the treatment of many infectious diseases is considered as one of the miracles of modern medicine. Their usage has been continuously rising on a global scale and their applications have become innumerable varied (Goldberg, 1959).

Antibiotics are chemical substances produced by an organism which inhibit the growth of another organisms. They are chemotherapeutic agents, that is, they have toxic effects on certain types of disease-producing microorganism without acting dangerously on the patient (Funk and Wagnall's New Encyclopedia, 1981).

More than 60 antibiotics are clinically used today. Most of these are used to treat bacterial infections while others are used to fight harmful fungi and protozoa. Antibiotics are not only used to treat illness in humans and infections in