THE MICROMYCOFLORA FROM SOIL SAMPLES IN PIT-OS, TALAMBAN AND BANILAD, CEBU CITY WITH NOTES ON THEIR ECONOMIC IMPORTANCE

A Thesis

Presented to the

Faculty of the Graduate School

University of San Carlos

Cebu City

In Partial Fulfillment

of the Requirements for the Degree

Master of Science in Biology

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by

Anthony L. Awa

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APPROVAL SHEET

This Thesis entitled "THE MICROMYCOFLORA FROM SOIL SAMPLES IN PIT-OS, TALAMBAN AND BANILAD, CEBU CITY WITH NOTES ON THEIR ECONOMIC IMPORTANCE" prepared and submitted by ANTHONY L. AWA in partial fulfillment of the requirements for the degree of MASTER OF SCIENCE IN BIOLOGY, has been examined and is recommended for acceptance and approval for ORAL EXAMINATION.

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ABSTRACT

Soil samples from four ecological sites such as garden, compost pit, grassland and pigerry soils were collected from three stations established in Pit-os, Talamban and Banilad, Cebu City. Sampling in January, March and May, 1994 were utilized for isolation of soil-borne micromycoflora using serial dilution. Plate-culture technique with Saboraud Agar and Corn Meal Agar media was undertaken. The physico-chemical parameters of the soil such as temperature, pH, moisture content, organic matter content and available phosphorus and potassium were determined using standard methods.

Twenty-two micromycofloral species isolated belonged to two classes, two orders, three families and eight genera. Genus Aspergillus had the most abundant species isolated. Other genera isolated were Penicillium, Mucor, Rhizopus, Syncephalastrum, Monilia, Trichoderma and Gliocladium. The economic importance of the isolated species were also noted.

The relationship of the physico-chemical parameters and fungal composition in total number of isolated species were determined using simple regression analysis. Soil pH had an inverse relatioship with fungal composition and potassium had a positive correlation. Micromycofloral composition on the different ecological sites were compared using one-way ANOVA. Analysis revealed no significant difference in the micromycofloral composition of the different ecological sites.

TABLE OF CONTENTS

PAGE

LIST OF TABLES

LIST OF FIGURES