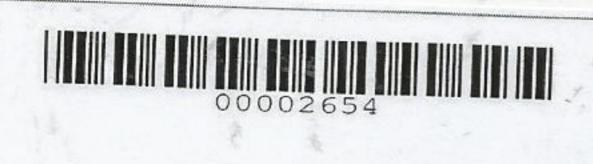
## COMPARATIVE STUDY OF POPULATION DENSITIES OF FUSARIUM SPECIES FROM CULTIVATED AND NON-CULTIVATED SOILS IN SELECTED TOWNS OF CAVITE

Undergraduate Thesis
Submitted to the Faculty of the
Cavite State University
Indang, Cavite

In partial fulfillment
of the requirements for the degree of
Bachelor of Science in Agriculture
(Major in Crop Protection)



Comparative study of population densities of fusarium species from cultivated and 631.4 D37 2000

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## ABSTRACT

DELA CRUZ, MEDWILL I. Cavite State University Indang, Cavite March 2000. Comparative Study of Population Densities of Fusarium Species From Cultivated and Non-Cultivated Soils in Selected Towns of Cavite. Adviser: Dr. Adelaida E. Sangalang

Composite soil samples were collected from cultivated and non-cultivated soils from Alfonso and Tanza to compare the population density of *Fusarium* species. *Fusarium* species were isolated using the soil dilution plate technique in peptone PCNB agar, carnation-leaf agar, potato dextrose agar.

Out of 91 isolates six species of Fusarium were identified from cultivated and non-cultivated soils. These were Fusarium solani (Mart) Appel & Wollenw, Fusarium oxysporum Schlecht, Fusarium semitectum Berk & Rav., Fusarium proliferatum, (Matsushima) Nirenberg, Fusarium equiseti (Cda) Sacc and Fusarium moniliforme Sheldon.

The population densities of all species in cultivated and non-cultivated soils were significantly different. However the frequency of *Fusarium* isolates showed no significant differences between cultivated and non-cultivated soils.

Fusarium solani and F. oxysporum were the two most abundant and frequently isolated in cultivated and non-cultivated soil from Alfonso and Tanza.

F. semitectum, F. proliferatum and F. equiseti had lesser population densities.

Fusarium moniliforme was present only in cultivated soils planted with rice and vegetable from Tanza soil sample.

Results indicate that cultivation, soil type, soil moisture, presence of other pathogens, and the inherent characteristics of each species determine the nature and population density of *Fusarium* species that reside in the soil.

## TABLE OF CONTENTS

	Page
BIOGRAPHICAL DATA	iii
ACKNOWLEDGMENT	iv
ABSTRACT	vii
LIST OF TABLES	ix
LIST OF FIGURES	xiii
LIST OF APPENDIX TABLES	xiv
INTRODUCTION	1
Importance of the Study	2
Objectives of the Study	3
Time and Place of the Study	3
REVIEW OF RELATED LITERATURE	4
MATERIALS AND METHODS	8
Preparation of Media	8
Collection of Soil Samples	9
Soil Dilution Plate Techniques	9
Identification of Fusarium Species	9
Data Analysis of Fusarium Species	10
Statistical Analysis	10

	Page
RESULTS AND DISCUSSION	11
SUMMARY, CONCLUSION AND RECOMMENDATION	25
Summary	25
Conclusion	26
Recommendations	26
LITERATURE CITED	27
APPENDICES	29

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