

BIOLOGICAL CONTROL OF SEEDLING  
DAMPING - OFF AND POD ROT  
OF PEANUT

BY

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A THESIS SUBMITTED IN PARTIAL FULFILMENT  
OF  
THE REQUIREMENTS FOR THE DEGREE OF  
MASTER OF SCIENCE

IN  
AGRICULTURE  
(PLANT PATHOLOGY)

DEPARTMENT OF BOTANY AND PLANT PATHOLOGY  
FACULTY OF AGRICULTURE  
AIN-SHAMS UNIVERSITY

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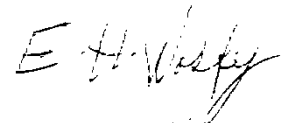
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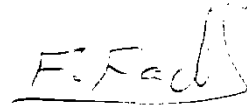
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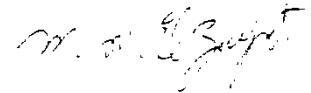
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ABSTRACT

Isolation of pathogenic fungi showed that Rhizoctonia solani was on the top of fungi associated with peanut plants.

Pathogenicity studies showed that R. solani caused damping-off and pod rot of peanut.

Isolation of antagonistic fungi produced four different isolates of Trichoderma.

Evaluation of antagonistic activity of Trichoderma spp. against R. solani in vitro showed significant differences between the 20 tested isolates.

The role of media on the antagonism of Trichoderma spp. against linear growth of R. solani were varied.

The best carbon sources favoured antagonistic activity of Trichoderma were starch and mannitol.

Optimum pH value of the medium that favoured antagonistic activity of Trichoderma was 5.0.

Incubation at 20-25 °C favoured antagonistic action.

Optimum incubation period that favoured antagonism of Trichoderma was 3 days.

Wheat bran/peat preparation of Trichoderma was chosen as the best food base and a carrier for the application of biocontrol agent to soil.

Evaluation of 20 isolated of Trichoderma in vivo showed significant differences under greenhouse conditions.

The most efficient biological control of damping-off was achieved with Trichoderma preparation at the rate of 4g/kg soil.

Application of biocontrol agent indicate significant efficiency in controlling damping-off in sandy clay than sandy soil.

The efficiency of biocontrol agent depended on application methods, inoculum type and time of application.

Application of wheat bran/peat mixture at the same time of sowing seed was more efficient for controlling damping-off and pod rot of peanut.

All treatments of Trichoderma affected growth characters of peanut plants.

## ACKNOWLEDGEMENT

The authoress owes a deep debt of gratitude to Professor Dr. M.M. EL-ZAYAT Professor of Plant Pathology, Agric. Botany and Plant Path. Dept. Faculty of Agriculture and Head of Agric. Sciences Department in the Institute of Environmental Studies and Research, Ain-Shams University and to Professor Dr. M.M. SAIDUR, Director of Plant Path. Res. Inst., Agric. Res. Center, Ministry of Agriculture, for their supervision, kind attention and great help in accomplishing this work and continuous guidance.

Sincere thanks are also due to Dr. EBTISAM M. EL-SHERIF, Head of Mycology Res. Dept., and Dr. SIHAM ABDEL GAFHOUR, Mycol. Res., Dept. for their valuable help.

Deep thanks are also due to all colleagues and staff members of the Agric. Botany and Plant Path. Dept., Fac. of Agric. Ain-Shams Univ. and the Mycol. Res. and Plant Dis. Survey Dept. for their helpful, encouragement and facilities offered which made this investigation possible.

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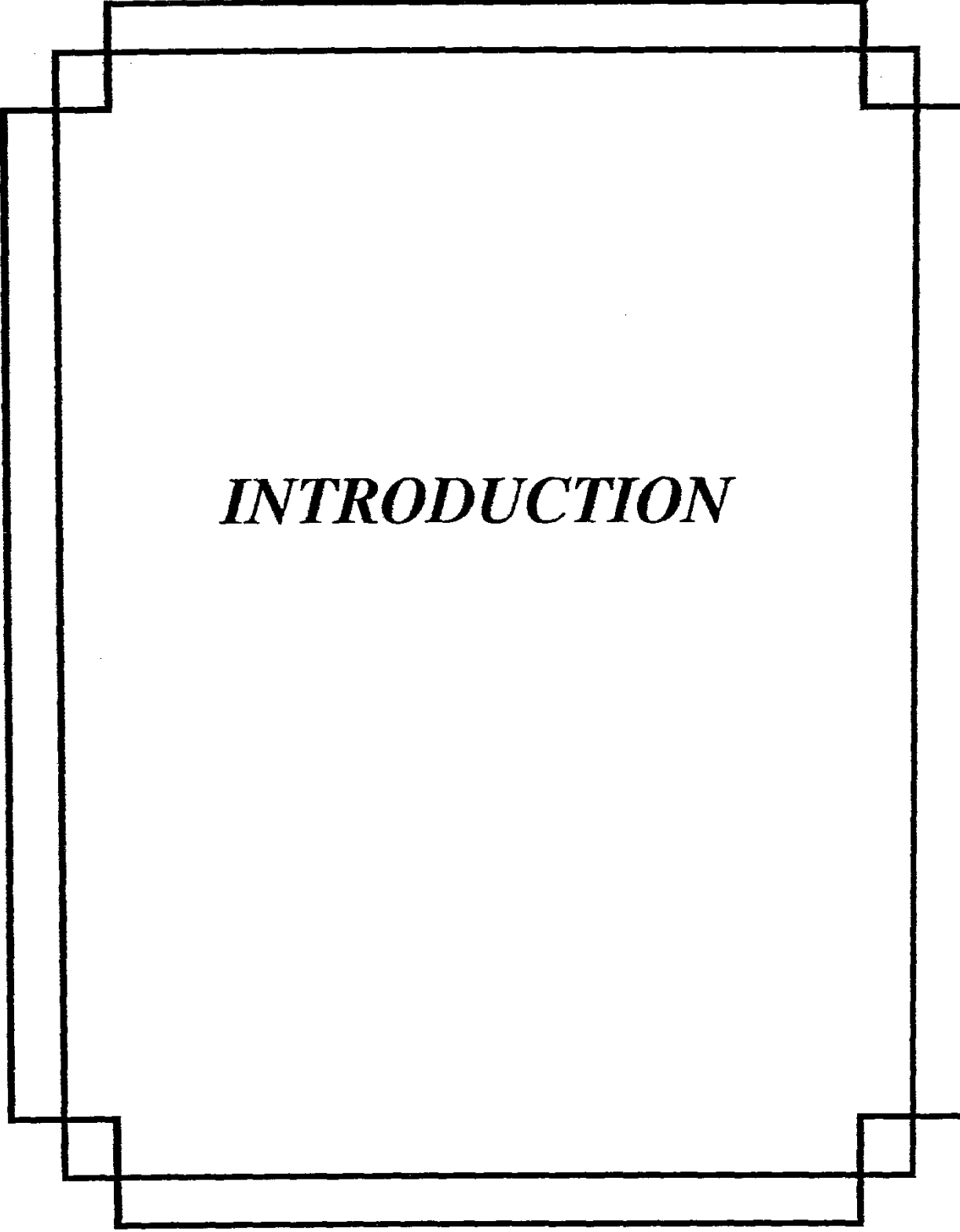
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# ***INTRODUCTION***