

CONVENTION

CONTENTS

<u>Chapter No.</u>	<u>Title</u>	<u>Page</u>
I	INTRODUCTION	1-13
II	REVIEW OF LITERATURE	14-25
	A. Effect of pesticides on germination and growth	14
	B. Effect of pesticides on biochemical activities	17
	C. Pesticides and Micro organisms	22
	D. Effect of pesticides on anatomy and pollen germination	23
	E. Scope of present investigation	24
III	MATERIALS AND METHODS	26-37
	A. Pesticides used for the study	
	1. Endosulfan	26
	2. Methyl parathion	27
	B. Procurement of seeds and pesticides	28
	C. Pesticidal treatment	
	1. Germination	29
	2. Seedling growth	29
	3. Starch content	30
	4. Enzyme studies	30
	D. Methods followed	
	1. Starch	30
	2. Hydrolytic Enzymes	
	i) α - Amylase	32
	a) Extraction	
	b) Assay	

<u>Chapter No.</u>	<u>Title</u>	<u>Page</u>
	ii) Protease	33
	a) Extraction	
	b) Assay	
	iii) Acid Phosphatase	34
	a) Extraction	
	b) Assay	
	iv) Alkaline Phosphatase	35
	a) Extraction	
	b) Assay	
3.	Oxido-reductases (Respiratory enzymes)	
	i) Peroxidase	35
	a) Extraction	
	b) Assay	
	ii) Catalase	36
	a) Extraction	
	b) Assay	
IV	RESULTS AND DISCUSSION	
A.	Germination	38-92
1.	Germination percentage	38
2.	Seedling growth	40
3.	Root/Shoot ratio	45
4.	Percent Phytotoxicity	46
5.	Seedling weight	47
6.	Lateral roots	49
B.	Starch content	52
C.	Enzyme activities	55
1.	Hydrolytic enzymes	55

<u>Chapter No.</u>	<u>Title</u>	<u>Page</u>
a)	α - Amylase	55
b)	Protease	62
c)	Acid Phosphatase	67
d)	Alkaline phosphatase	74
2.	Oxido - reductases	80
a)	Peroxidase	80
b)	Catalase	87
V.	SUMMARY AND CONCLUSIONS	93-100
	BIBLIOGRAPHY	101-121