

## CONTENTS

Chapter	Particular	Page
1.	INTRODUCTION	1
1.1	General Introduction .....	1
1.2	The Evaluation of pesticide impact.....	10
1.3	Toxicity.....	12
1.4	Biochemical study.....	17
1.5	Some Enzymatical studies.....	23
1.6	Endocrinological changes.....	27
2.	MATERIAL AND METHOD .....	30
2.1	Information of test organism.....	30
2.2	Acclimatization method.....	30
2.3	Toxicity method.....	32
2.3.1	Secting test organism.....	32
2.3.2	Collecting test organisms.....	32
2.3.3	Toxicity method.....	33
2.3.4	Exploratory test.....	35
2.3.5	Lethal toxicity tests.....	35
2.3.6	Statistical analysis and calculations.....	36
2.4	Biochemical changes.....	6
2.4.1	Estimation of glycogen.....	38
2.4.2	Estimation of proteins.....	39
2.4.3	Estimation of lipid.....	40
2.5	Enzyme activity.....	43
2.5.1	Estimation of protease.....	44
2.5.2	Estimation of AAT.....	44
2.5.3	Estimation of ALAT.....	45
2.5.4	Estimation of acid phosphatase.....	45
2.5.5	Estimation of Alkaline phosphatase.....	46
2.6	Endocrinological study.....	47
3.	RESULTS AND OBSERVATIONS.....	49
3.1	Toxicity.....	49
3.1.1	Behaviour.....	67

Chapter	Particular	Page
3.2	Biochemical changes.....	67
3.2.1	Glycogen.....	68
3.2.2	Proteins.....	73
3.2.3	Lipid.....	98
3.2.3.1	Total lipid.....	98
3.2.3.2	Cholesterol.....	103
3.3	Enzyme.....	103
3.3.1	Protease.....	108
3.3.2	Transferases.....	114
3.3.2.1	AAT(Aspartate amino transferases).	114
3.3.2.2	ALAT (Alanine amino transferases).	116
3.3.3	Phosphatases.....	125
3.3.3.1	Acid phosphatases.....	125
3.3.3.2	Alkaline phosphatases.....	127
3.4	Endocrinological changes.....	136
3.4.1	Histopathological changes in adrenal.....	136
3.4.2	Histopathological changes in thyroid.....	137
3.4.3	Histopathological changes in testis.....	140
3.4.4	Histopathological changes in pancreas..... (islets of langerhans)	142
4.	<b>DISCUSSION</b>	
4.1	Toxicity and Behaviour.....	147
4.2	Biochemical.....	154
4.2.1	Glycogen.....	154
4.2.2	Proteins.....	158
4.2.3	Lipid.....	168
4.2.3.1	Total lipid.....	168
4.2.3.2	Cholesterol.....	171
4.3	Enzymes.....	173
4.3.1	Protease.....	174
4.3.2	Aminoacid transferases.....	176
4.3.3	Phosphatases.....	180
4.4	Endocrinological changes.....	185

Chapter	Particular	Page
	4.4.1 Histopathological changes in thyroid....	185
	4.4.2 Histopathological changes in pancreas...	186
	4.4.3 Histopathological changes in adrenal....	187
	4.4.4 Histopathological changes in testis.....	188
4.	SUMMARY AND CONCLUSIONS.....	191
5.	BIBLIOGRAPHY .....	209
6.	PUBLICATIONS	241