

CONTENTS

- Introduction	
- Review of literature.....	3
A Differences distinguishing resistant from susceptible strains.....	4
I - Bionomic.....	4
II - Generation.....	7
III - Penetration of cuticle.....	8
IV - Behaviour.....	10
V - Enzyme content.....	10
VI - Temperature.....	17
VII - Age.....	19
VIII- Insect Species.....	19
IX - Seasonal differences.....	20
X - Method of application.....	20
XI - Effect of Sex.....	21
XII - Protein and lipid contents.....	21
XIII- Carbohydrate content.....	23
B Genetic of Resistance.....	23
I - Resistance to organophosphorus insecticides.....	23
II - Resistance to chlorinated hydrocarbons.....	25
III - Resistance to pyrethroids.....	25
IV - Resistance to carbamates.....	29

- Materials and Methods.....	31
I - Susceptible strain.....	31
II - Rearing procedures.....	32
III- Insecticides used.....	33
IV - Exposure technique.....	36
V - Determination of the biological potential.....	37
VI - Biochemical analysis of pupae.....	38
- Results and Discussion.....	42
I - Effect of Rearing under Insecticide pressure on susceptibility.....	42
II - Effect of selection for Resistance on Biological potential.....	58
III- Effect of selection for Resistance on some body components.....	66
IV - Effect of selecting pressure by insecticide on amino acid contents.....	76
- Summary.....	69
- References.....	100
* Common, commercial and chemical names of insecticides in review of literature.....	108
- Arabic summary.	