

## CONTENTS

### CHAPTER

|                                                                                           |               |
|-------------------------------------------------------------------------------------------|---------------|
| <b>1. INTRODUCTION</b>                                                                    | <b>1-9</b>    |
| <b>2. MATERIALS AND METHODS</b>                                                           | <b>10-34</b>  |
| <b>3. EXPERIMENTAL RESULTS</b>                                                            | <b>35-187</b> |
| <b>3.1 Acute Oral Toxicity of Insecticide Combination in Rats</b>                         |               |
| 3.1.1 Clinical Symptoms                                                                   |               |
| 3.1.2 Mortality                                                                           |               |
| 3.1.3 LD <sub>50</sub> Value                                                              |               |
| 3.1.4 Gross Pathology                                                                     |               |
| <b>3.2 Acute Neurotoxicity Screening Battery Tests of Insecticide Combination in Rats</b> |               |
| 3.2.1 Clinical Symptoms                                                                   |               |
| 3.2.2 Body Weights                                                                        |               |
| 3.2.3 Cholinesterase Estimation                                                           |               |
| 3.2.4 Functional Observational Battery tests                                              |               |
| 3.2.5 Gross Pathology                                                                     |               |
| 3.2.6 Histopathology                                                                      |               |
| <b>3.3 Repeated Dose 90-Day Neurotoxicity Study of Combination Insecticide in Rats</b>    |               |
| 3.3.1 Mortality                                                                           |               |
| 3.3.2 Clinical Symptoms                                                                   |               |
| 3.3.3 Ophthalmology                                                                       |               |
| 3.3.4 Body Weights                                                                        |               |
| 3.3.5 Food Consumption                                                                    |               |
| 3.3.6 Hematology Values                                                                   |               |
| 3.3.7 Differential Leucocytes Count                                                       |               |
| 3.3.8 Clinical Chemistry Values                                                           |               |



|                                                                                 |                |
|---------------------------------------------------------------------------------|----------------|
| 3.3.9 Functional Observational Battery Tests                                    |                |
| 3.3.10 Absolute Organ Weights                                                   |                |
| 3.3.11 Relative Organ Weights                                                   |                |
| <b>3.4 Developmental Neurotoxicity Study of Combination Insecticide in Rats</b> |                |
| 3.4.1 Estrous Cycle                                                             |                |
| 3.4.2 Gestation Body Weights                                                    |                |
| 3.4.3 Gestation Food Consumption                                                |                |
| 3.4.4 Lactation Body Weights                                                    |                |
| 3.4.5 Lactation Food consumption                                                |                |
| 3.4.6 Fertility Index                                                           |                |
| 3.4.7 Mating Index                                                              |                |
| 3.4.8 Gestation Index                                                           |                |
| 3.4.9 Lactation Index                                                           |                |
| 3.4.10 Live Birth Index                                                         |                |
| 3.4.11 Duration of Gestation                                                    |                |
| 3.4.12 Litter Data                                                              |                |
| 3.4.13 Absolute Organ Weights - Pups                                            |                |
| 3.4.14 Relative Organ Weights - Pups                                            |                |
| 3.4.15 Organ to Brain Weight Ratio - Pups                                       |                |
| 3.4.16 Organ Weights - Parents                                                  |                |
| 3.4.17 Pathology                                                                |                |
| <b>4. DISCUSSION</b>                                                            | <b>188-200</b> |
| <b>SUMMARY</b>                                                                  | <b>201-205</b> |
| <b>BIBLIOGRAPHY</b>                                                             | <b>206-215</b> |