

## LIST OF CONTENTS

<b>TITLE PAGE .....</b>	<b>ii</b>
<b>ENDORSEMENT PAGE .....</b>	<b>iii</b>
<b>STATEMENT.....</b>	<b>v</b>
<b>ABSTRACT .....</b>	<b>vi</b>
<b>BIOGRAPHY .....</b>	<b>vii</b>
<b>PREFACE.....</b>	<b>viii</b>
<b>LIST OF CONTENTS .....</b>	<b>ix</b>
<b>LIST OF TABLES .....</b>	<b>xi</b>
<b>LIST OF FIGURES .....</b>	<b>xii</b>
<b>LIST OF APPENDIXES .....</b>	<b>xiii</b>
<b>CHAPTER I. INTRODUCTION.....</b>	<b>1</b>
A. Background .....	1
B. Problem Statement .....	4
C. Objective of The Research .....	4
D. Benefits of The Research .....	5
<b>CHAPTER II. LITERATURE STUDY .....</b>	<b>6</b>
A. <i>Tribolium castaneum</i> .....	6
B. <i>Pachyrhizus erosus</i> .....	11
C. Framework of Thought .....	13
D. Hypothesis.....	16

<b>CHAPTER III. RESEARCH METHOD .....</b>	<b>17</b>
A. Place and Time of Research.....	17
B. Materials and Research Tools .....	17
C. Experiment Method.....	17
D. Research Implementation.....	18
D. Observation Parameter .....	21
E. Data Analysis .....	24
<b>CHAPTER IV. RESULT AND DISCUSSION .....</b>	<b>25</b>
A. Result .....	25
B. Discussion .....	33
<b>CHAPTER V. CONCLUSIONS AND SUGGESTIONS .....</b>	<b>40</b>
A. Conclusions .....	40
B. Suggestions .....	41
<b>BIBLIOGRAPHY .....</b>	<b>42</b>
<b>APPENDIX .....</b>	<b>47</b>

## LIST OF TABLES

Table 4.1. The Average of <i>Tribolium castaneum</i> Mortality .....	26
Table 4.2. The Average of <i>Jicama</i> Seeds Powder Effectiveness.....	27
Table 4.3. Probit Value Calculation.....	28
Table 4.4. Coefficients of Regression Test .....	28
Table 4.5. The Average of <i>Tribolium castaneum</i> Imago Population .....	29
Table 4.6. The Average of Wheat Flour Weight Loss .....	30
Table 4.7. The Average of Wheat Flour Moisture Content .....	31
Table 4.8. The Average of Organoleptic Test Scores at 60 DAA .....	33

## LIST OF FIGURES

Figure 2.1. Various species of genus <i>Tribolium</i> .....	7
Figure 2.2. Metamorphosis of <i>Tribolium castaneum</i> .....	8
Figure 2.3. Genitalia organs in <i>Tribolium castaneum</i> pupae .....	9
Figure 2.4. <i>Pachyrizus erocus</i> seeds .....	12
Figure 3.1. Application Positions of <i>Jicama</i> Seeds Powder .....	21

## LIST OF APPENDIXES

Appendix I. Research Layout.....	48
Appendix II. Example of <i>Tribolium castaneum</i> Mortality Calculation .....	49
Appendix III. Analysis of Variance of <i>Tribolium castaneum</i> Mortality.....	53
Appendix IV. Analysis of Variance of <i>Jicama</i> Seeds Powder Effectiveness ....	55
Appendix V. Probit Analysis and Calculation of Lethal Dose (LD) 50 .....	56
Appendix VI. Analysis of Variance of <i>Tribolium castaneum</i> Population .....	57
Appendix VII. Analysis of Variance of Wheat Flour Weight Loss.....	57
Appendix VIII. Analysis of Variance of Wheat Flour Moisture Content.....	58
Appendix IX. Organoleptic Test Scores of Respondents.....	58
Appendix X. Activity Documentation .....	60