

## TABLE OF CONTENTS

	Page
<b>APPROVAL SHEET .....</b>	<b>i</b>
<b>THESIS DEFENCE .....</b>	<b>i</b>
<b>ABSTRACT .....</b>	<b>ii</b>
<b>ACKNOWLEDGEMENT .....</b>	<b>v</b>
<b>LIST OF TABLE.....</b>	<b>ix</b>
<b>LIST OF FIGURES .....</b>	<b>x</b>
<b>AUTHENTICITY STATEMENT .....</b>	<b>xi</b>
<b>CHAPTER I INTRODUCTION.....</b>	<b>1</b>
1.1 Research Background.....	1
1.2 Research Problems .....	3
1.3 Research Objectives .....	3
1.4 Research Benefits .....	4
1.5 Authenticity of Research .....	4
<b>CHAPTER II LITERATUR REVIEW.....</b>	<b>6</b>
2.1 Theoretical foundation.....	6
2.2 Halal Product Analysis .....	22
2.3 Theoretical Framework .....	23
2.4 Conceptual Framework .....	24
<b>CHAPTER III RESEARCH METHODS.....</b>	<b>25</b>
3.1 Research Type and Design .....	25
3.2 Research Period and Location .....	25
3.3 Variables Research .....	25
3.4 Variable Operational Definition .....	26

3.5 Research tools and materials .....	28
3.6 Research Procedure .....	29
3.7 Halal Product Analysis .....	35
3.8 Data Analysis.....	35
3.9 Research Flow Chart .....	36
3.10 Research Schedule.....	37
<b>CHAPTER 1V RESULTS AND DISCUSSION .....</b>	<b>38</b>
4.1 Plant Determination.....	38
4.2 Simplisia Character and Extraction of Cardamom Seeds.....	38
4.3 Phytochemical screening .....	39
4.4 FDT Formulation of Cardamom Seed Extract .....	45
4.5 Test Results of Evaluation of Characteristics of Cardamom Seed Extract FDT Preparations.....	47
4.5 Test of the Inhibitory Activity of FDT Preparation of Cardamom Seed Extract ( <i>Amomum compactum Sol. Ex Maton</i> ) Against <i>Staphylococcus aureus</i> <i>Bacteria</i> .....	58
<b>CHAPTER V Conclusions and suggestions.....</b>	<b>67</b>
6.1 Conclusion.....	67
6.2 Suggestions.....	67
<b>REFERENCES .....</b>	<b>68</b>
<b>APPENDIX .....</b>	<b>78</b>

## LIST OF TABLE

	Page
Table 1 Authenticity of Research.....	4
Table 2 Formulation of cardamom seed extract FDT preparation.....	25
Table 3 Operational Definition of Variables.....	26
Table 4 Relationship of Flow Properties to Angle of Rest .....	31
Table 5 Compressibility Index and Category.....	32
Table 6 Weight Uniformity Test Parameters .....	33
Table 7 Research Schedule .....	37
Table 8 Extraction Results of Cardamom Seed Simplisia .....	39
Table 9 Phytochemical Screening Test Results of Cardamom Seed Extract.....	40
Table 10 Test Results of Flow Time of Cardamom Seed Granule .....	48
Table 11 Results of the Granule Quiescent Angle Test .....	49
Table 12 Compressibility Index and its Categories .....	50
Table 13 Compressibility Test Results of Cardamom Seed Granule.....	50
Table 14 Organoleptic Test Results .....	51
Table 15 Tablet Weight Uniformity Criteria .....	52
Table 16 Tablet weight uniformity test results .....	52
Table 17 Tablet Size Uniformity Test results .....	54
Table 18 Tablet Friability Test Results .....	55
Table 19 Tablet Hardness Test Results.....	56
Table 20 Test Results of Tablet Disintegration Time .....	57
Table 21 Diameter of the Bacterial Inhibition Zone .....	63
Table 22 Results of the Inhibition Test of Cardamom Seed Extract FDT Preparation against <i>Staphylococcus aureus</i> .....	65

## LIST OF FIGURES

	Page
Figure 1 <i>Staphylococcus aureus</i> bacteria.....	7
Figure 2 Cardamom seeds ( <i>Amomum compactum</i> Sol. Ex Maton).....	15
Figure 3 Chemical Structure of Aerosil .....	18
Figure 4 Chemical Structure of Explotab.....	18
Figure 5 Aspartame Chemical Structure .....	19
Figure 6 Chemical Structure of PVP.....	19
Figure 7 Chemical Structure of Mannitol .....	20
Figure 8 Chemical Structure of Sucrose .....	20
Figure 9 Chemical structure of talcum.....	21
Figure 10 Chemical Structure of Magnesium Stearate .....	21
Figure 11 Theoretical Framework.....	23
Figure 12 Conceptual Framework.....	24
Figure 13 Thick Extract of Cardamom Seeds .....	39
Figure 14 Chemical Reaction of the Falvonoid Test .....	41
Figure 15 Chemical Reaction of the Saponin Test.....	43
Figure 16 Steroid Structure .....	44