

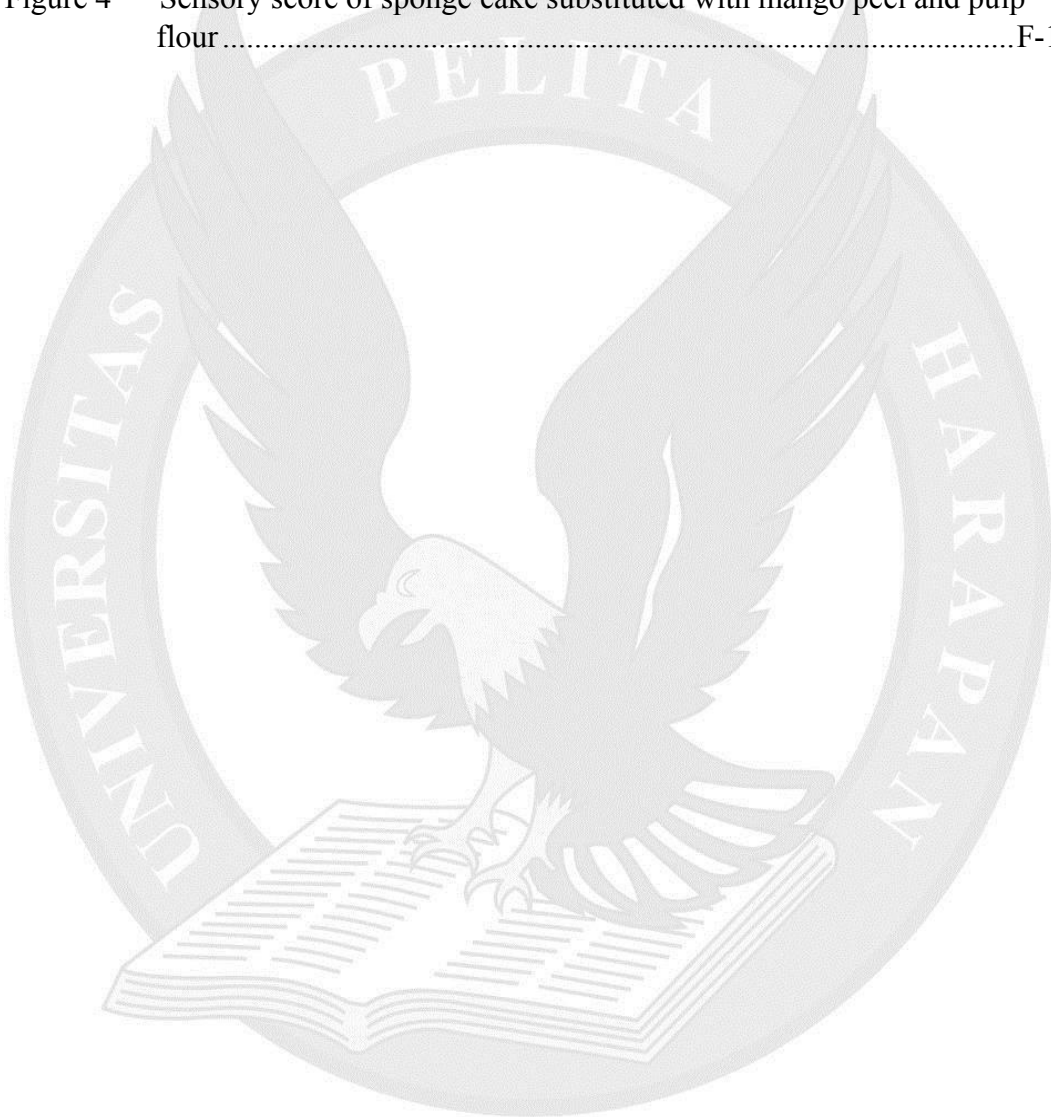
TABLE OF CONTENTS

	page
COVER	
FINAL ASSIGNMENT STATEMENT AND UPLOAD AGREEMENT	
APPROVAL BY THESIS SUPERVISOR	
APPROVAL BY THESIS EXAMINATION COMMITTEE	
ABSTRACT	vi
ACKNOWLEDGEMENTS	vii
TABLE OF CONTENTS	ix
LIST OF FIGURES	xi
LIST OF TABLES	xii
LIST OF APPENDICES	xiii
CHAPTER I INTRODUCTION	1
1.1 Background	1
1.2 Research Problem	3
1.3 Objectives	4
1.3.1 General Objectives	4
1.3.2 Specific Objectives	4
CHAPTER II DISCUSSION	5
2.1 Literature Review	5
2.1.1 Sponge Cake	5
2.1.2 Main Ingredients in Sponge Cake Formulation	6
2.1.2.1 Egg	6
2.1.2.2 Wheat Flour	7
2.1.2.3 Sugar	9
2.1.3 Egg Replacer	9
2.1.3.1 Aquafaba	11
2.1.3.2 Soy Milk	12
2.1.3.3 Whey Protein Isolate	13
2.1.4 Dietary Fiber	14
2.1.4.1 Coconut Pulp Flour	15
2.1.4.2 White Cabbage Powder	16
2.1.4.3 Mango Pulp and Peel Flour	17
2.1.4.4 Spent Coffee Ground	18
2.2 Discussion	19
2.2.1 Effect of Different Egg Replacers Towards Batter Characteristics	19
2.2.1.1 Batter Density	19
2.2.1.2 Batter Viscosity	20
2.2.2 Effect of Different Egg Replacers Towards Physicochemical Characteristics of Sponge Cake	22
2.2.2.1 Weight Loss and Moisture Content	22
2.2.2.2 Specific Volume and Volume Index	23

2.2.2.3 Texture	25
2.2.3 Effect of Fiber-rich Ingredients Substitution Towards Physicochemical and Sensory Characteristics of Sponge Cake	26
2.2.3.1 Proximate and Fiber Content.....	26
2.2.3.2 Specific Volume.....	29
2.2.3.3 Color	30
2.2.3.4 Texture	32
2.2.3.5 Sensory Characteristics	33
CHAPTER III CONCLUSION AND SUGGESTION	36
3.1 Conclusion	36
3.2 Suggestion.....	37
BIBLIOGRAPHY	38
APPENDICES	44

LIST OF FIGURES

	page
Figure 2.1. Viscoelastic layer formation by protein.....	10
Figure 2 Texture profile of sponge cake made with soy milk	D-1
Figure 3 Dietary fiber content of sponge cake substituted with mango pulp and peel flour	E-1
Figure 4 Sensory score of sponge cake substituted with mango peel and pulp flour.....	F-1



LIST OF TABLES

	page
Table 2. 1	Chemical composition of different egg fractions..... 7
Table 2. 2	Chemical composition of soft wheat flour..... 8
Table 2. 3	Chemical composition of aquafaba..... 12
Table 2. 4	Chemical composition of coconut pulp flour..... 16
Table 2. 5	Chemical composition of cabbage leaf powder 17
Table 2. 6	Chemical composition of mango pulp and peel flour 18
Table 2. 7	Effect of different egg replacers on batter density and viscosity 19
Table 2. 8	Effect of different egg replacers on weight loss and moisture content of sponge cake 22
Table 2. 9	Effect of different egg replacers on specific volume and volume index of sponge cake..... 24
Table 2. 10	Effect of different egg replacers on texture profile of sponge cake . 25
Table 2. 11	Fiber content of fiber-enriched sponge cakes 27
Table 2. 12	Proximate content of fiber-enriched sponge cakes 28
Table 2. 13	Specific volume of fibre-enriched sponge cakes 29
Table 2. 14	Crust color analysis of fiber-enriched sponge cakes..... 30
Table 2. 15	Crumb color analysis of fiber-enriched sponge cakes 31
Table 2. 16	Texture profile of fiber-enriched sponge cakes 32
Table 2. 17	Sensory properties of fiber-enriched sponge cakes..... 34

LIST OF APPENDICES

	page
Appendix A	
Digital Receipt Turnitin.....	A-1
Appendix B	
Summary and Journal List.....	B-1
Appendix C	
Supporting Journal List.....	C-1
Appendix D	
Texture Profile of Sponge Cake Made with Soy Milk.....	D-1
Appendix E	
Dietary Fiber Content of Sponge Cake Substituted with Mango Pulp and Peel Flour.....	E-1
Appendix F	
Sensory Score of Sponge Cake Substituted with Mango Pulp and Peel Flour	F-1

