

CONTENTS

APPROVAL SHEET	ii
PERNYATAAN BEBAS PLAGIASI	iii
ACKNOWLEDGEMENT	iv
CONTENTS.....	vii
LIST OF TABLES.....	ix
LIST OF FIGURES	x
LIST OF APENDICES	xi
ABSTRACT.....	xii
INTISARI	xiii
CHAPTER I.....	1
1.1 Background.....	1
1.2 Research Problem	4
1.3 Objectives	5
CHAPTER II.....	6
2.1 Molded Pulp Packaging	6
2.1.1 Application and marketing segmentation.....	7
2.1.2 Classification.....	7
2.1.3 Raw materials.....	9
2.1.4 Production	10
2.2 Tea Waste.....	11
2.3 Starch	13
2.4 Poly (Lactic Acid) (PLA).....	16
2.5 Properties Improvement.....	19
2.5.1 Adding glycerol as plasticizer.....	19
2.5.2 Reinforcement by adding fiber	20
2.5.3 Coating with poly (lactic acid) (PLA)	21
CHAPTER III	23
3.1 Materials.....	23
3.1.1 Raw materials.....	23
3.1.2 Chemical	23
3.1.3 Equipment	24
3.2 Methods.....	25
3.2.1 Molded pulp formulation and preparation	25
3.2.2 Analysis	28
CHAPTER IV	32
4.1. Effect of Different Concentration Ratio of Tea Waste, Starch, and PLA.....	32
4.1.1 Morphology.....	32
4.1.2 Mechanical properties	36
4.1.3 Water absorption.....	40
4.1.4 Product selection.....	41
4.2 Effect of Different Type and Concentration of Plasticizer	41

4.2.1 Morphology.....	42
4.2.2 Mechanical properties	45
4.2.3 Water absorption.....	49
4.2.4 Product selection.....	50
4.3 Effect of Different Concentration of Microcrystalline Cellulose (MCC)....	51
4.3.1 Morphology.....	51
4.3.2 Mechanical properties	53
4.3.3 Water absorption.....	56
4.3.4 Product selection.....	57
4.4 Effect of Different Concentration of poly (lactic acid) (PLA) Coating.....	58
4.4.1 Morphology.....	58
4.4.2 Mechanical properties	60
4.4.3 Water absorption.....	63
4.2.4 Product selection.....	63
CHAPTER V	65
5.1 Conclusion	65
5.2 Suggestions	66
REFERENCE.....	67
APPENDICES	71