

CONTENTS

	Page
COVER.....	i
APPROVAL.....	ii
STATEMENT.....	iii
IDENTITY.....	iv
ABSTRACT.....	vi
ACKNOWLEDGEMENT.....	vii
CONTENTS.....	ix
LIST OF TABLES.....	xii
LIST OF FIGURES.....	xiii
LIST OF APPENDIX.....	xv
ABBREVIATIONS AND SYMBOLIC MEANING.....	xvi
CHAPTER 1 INTRDUCTION.....	1
1.1 Background.....	1
1.2 The Formulation of Problem.....	5
1.3 Theoretical Base.....	5
1.4 The Aims of Research.....	6
1.5 The Outcomes of The Research.....	7
1.6 Hypothesis.....	7
CHAPTER 2 LITERATURE REVIEW.....	8
2.1 Review Of Parasites.....	8
2.1.1 <i>Eimeriatenella</i> Characteristic.....	8
2.1.2 Morphology of <i>EimeriaTenella</i> .....	8
2.1.3 Life Cycle of <i>EimeriaTenella</i> .....	10
2.1.4 Transmission of <i>EimeriaTenella</i> .....	13
2.1.5 Pathogenesis of <i>EimeriaTenella</i> .....	13
2.1.6 Clinical Signs.....	13
2.1.7 Histopathology of Coccidiosis.....	14
2.2 Broiler Chicken.....	17
2.2.1 Chicken Classification.....	17

2.2.2 Broiler Chicken Potential .....	18
2.3 Immunity InCoccidiosis .....	19
2.3.1 Classification of Immunity .....	19
2.3.2 Passive Immunity .....	21
2.3.2.1 Naturally Acquired Active Immunity .....	22
2.3.2.2 Artificially Acquired Passive Immunity .....	22
2.4 Serum .....	23
CHAPTER 3 MATERIAL AND METHODS .....	25
3.1 Research Location and Date .....	25
3.2 Project Research .....	25
3.3 Material and Equipment of Research .....	25
3.3.1 Experimental Animal .....	25
3.3.2 Experimental Equipment .....	25
3.3.3 Experimental Material .....	25
3.4 Research Methods .....	26
3.4.1 Serum Collecting and Serum Storing .....	26
3.4.2 Serum Dosage Calculation .....	26
3.4.3 Experimental Animal Adaptation .....	26
3.4.4 Research Observation .....	27
3.4.5 Observation Result .....	27
3.4.5.1 Observation of Clinical Sign .....	27
3.4.5.2 Observation of Oocyts Production and Histopathology .....	28
3.4.6 Research Variable .....	29
3.4.7 Data Analysis .....	30
3.5 Research Framework .....	31
CHAPTER 4 RESEARCH RESULT .....	32
4.1 Clinical Signs .....	32
4.2 Oocyst Production .....	32
4.3 Histopathological Changes .....	33
4.3.1 Histopathological Changes Scoring .....	33
4.3.2 Figure of Histopathological Changes Chicken Caecum ....	34
CHAPTER 5 DISCUSSION .....	49
5.1 Clinical Symptoms .....	49
5.2 Oocyst Production .....	50
5.2.1 Daily Production of Oocyst .....	50
5.3 Figure of Histopathological Changes Chicken Caecum .....	50
CHAPTER 6 CONCLUSION .....	53

6.1 Conclusion .....	53
6.2 Suggestion .....	53
SUMMARY .....	54
REFERENCES.....	57



LIST OF TABLES

Table	Page
4.1 The Average Clinical Symptoms, Such as Fatigue, Decreasing Appetite, Diarrhea, Bloody Diarrhea in Control Group and Treatment Groups (P1,P2,P3).....	32
4.2 The Average Oocyst Production in Control Group and Treatment Groups (P1,P2,P3).....	33
4.3 The Average Haemorrhage Scoring in Control Group and Treatment Groups (P1,P2,P3).....	34
4.4 The Average Inflammation Scoring in Control Group and Treatment Groups (P1,P2,P3).....	34
4.5 The Average Vili Rupture Scoring in Control Group and Treatment Groups (P1,P2,P3).....	35

LIST OF FIGURES

Figure	Page
2.1 Structure of Sporulated <i>Eimeriatenella</i> Oocyst .....	9
2.2 <i>Eimeriatenella</i> Life Cycle .....	12
2.3 Histopathological Changes in the Chicken Caecum on Day 7 .....	15
2.4 Histopathological of Normal Chicken Caecum .....	15
2.5 Caecum Normal Chicken .....	16
2.6 Chicken Caecum Which Infected <i>Eimeriatenella</i> .....	16
2.7 Broiler Chicken .....	17
2.8 Classification of Imunity .....	21
3.1 Research Flow Chart .....	31
4.1 Average Scoring of Histopathology Changements .....	35
4.2 Inflammation in P0 Caused by Inoculationsporozoites <i>E.tenella</i> , magnification 100x .....	37
4.3. Inflammation in P1 Caused by Inoculation sporozoites <i>E.tenella</i> , magnification 100x .....	38
4.4. Inflammation in P2 Caused by Inoculation sporozoites <i>E.tenella</i> , magnification 100x .....	39
4.5. Inflammation in P3 Caused by Inoculation sporozoites <i>E.tenella</i> , magnification 100x .....	40
4.6. Haemomaghe in P0 Caused by Inoculation sporozoites <i>E.tenella</i> , magnification 100x .....	41
4.7. Haemomaghe in P1 Caused by Inoculation sporozoites <i>E.tenella</i> , magnification 100x .....	42
4.8. Haemomaghe in P2 Caused by Inoculation sporozoites <i>E.tenella</i> , magnification 100x .....	43
4.9. Haemomaghe in P3 Caused by Inoculation sporozoites <i>E.tenella</i> , magnification 100x .....	44
4.10. Vili Rupture in P0 Caused by Inoculation sporozoites <i>E.tenella</i> , magnification 100x .....	45
4.11. Vili Rupture in P1 Caused by Inoculation sporozoites <i>E.tenella</i> , magnification 100x .....	46
4.12. Vili Rupture in P2 Caused by Inoculation sporozoites <i>E.tenella</i> , magnification 100x .....	47

4.13. Vili Rupture in P3 Caused by Inoculation sporozoites *E.tenella*,  
magnification 100x ..... 48



LIST OF APPENDIX

	Page
Appendix 1. Kruskallwallis test using SPSS for histopathological changes...	61
Appendix 2. Kruskall Wallis test using SPSS for daily production oocyst.....	73



ABBREVIATIONS AND SYMBOLS MEANING

°C	=	Celcius Degree
µg	=	Microgram
ANOVA	=	<i>Analysis Of Varians</i>
cc	=	centimetre cubic
cm	=	centimeter
CP	=	Charoen Pokphand
CRD	=	Completely Randomized Design
dpi	=	day post infection
GALT	=	Gut Associated Lymphoid Tissue
Ig A	=	Immunoglobulin A
Ig G	=	Immunoglobulin G
IVIG	=	Intravenous Immunoglobulin
MAB	=	Monoclonal Antibodi
Mat Ab	=	Maternal Antibody
MSI	=	Macroscopic Lession Scoring
NaCl	=	Natrium Chlorida
NK Cells	=	Natural Killer Cells
rpm	=	Rotation per Minute
SPs	=	Cysteine Protease
SPSS	=	<i>Statistical Product and Service Solution</i>
TCR	=	T-Cell Receptor
TEM	=	Transmission Electron Microscopy