

TABLE OF CONTENT

ABSTRACT.....	iv
ABSTRAK.....	v
STATEMENT OF ELIGIBILITY.....	vi
DECLARATION.....	vii
ACKNOWLEDGMENTS.....	ix
TABLE OF CONTENT.....	xi

CHAPTER I INTRODUCTION

1.1 Background.....	1
1.2 Formula problems.....	3
1.3 Research Purposes.....	3
1.3.1 General purpose.....	3
1.3.2 Special Purpose.....	4
1.4 Research Benefits.....	4
1.4.1 For Academics.....	4
1.4.2 For Practitioners.....	4
1.5 Authenticity of Research.....	5

CHAPTER II LITERATURE REVIEW

2.1 Cigarette.....	7
2.2 Free Radicals.....	7
2.3 Blood.....	11
2.4 Hematologist.....	11
2.2.1 Erythrocytes.....	12
2.2.1 Hemoglobin.....	13
2.1.1. Hematocrit.....	15
2.5 Marigold Plant (<i>Cosmos caudatus</i> Kunth.).....	15
2.6 Antioxidant.....	16
2.7 Flavonoids.....	17
2.8 Theoretical Framework.....	19

2.9 Conceptual Framework	20
2.10 Hypothesis	20

CHAPTER III RESEARCH METHODS

3.1 Research Design	21
3.2 Time and Place of Research	21
3.3 Tools and Materials	21
3.4 Research Variable	21
3.5 Operational Definition.....	22
3.6 Population and Research Samples.....	23
3.7 Research Procedure	24
3.7.1 Manufacture of feed	24
3.7.2 Dosage Planning.....	25
3.7.3 Treatment of Cigarette Smoke Exposure.....	25
3.7.4 Treatment and Observation Stage.....	25
3.7.5 Research Implementation Stage	27
3.8 Data Analysis.....	27
3.9 Termination Process	28
3.10 Research Ethics	28

CHAPTER IV RESULTS AND DISCUSSION

4.1 Result.....	31
4.1.1 Hemoglobin.....	31
4.1.2 Erythrocyte	32
4.1.3 Hematocrit.....	33
4.2 Discussion	34
4.2.1 Effect of giving marigold leaves to hemoglobin levels in male Wistar rats exposed to cigarette smoke.....	34

4.2.2Effect of marigold leaf administration on erythrocyte levels of male Wistar rats exposed to cigarette smoke	38
4.2.3Effect of marigold leaf administration on hematocrit levels of Wistar male rats exposed to cigarette smoke	41

CHAPTER V CONCLUSIONS AND SUGGESTIONS

5.1 Conclusions	45
5.2 Suggestions.....	45

REFERENCES	47
ATTACHMENT	54

LIST OF TABLES

Table 1. Authenticity Research	5
Table 2. Erythrocyte Normal Value.....	13
Table 3. Normal Hemoglobin Value	14
Table 4. Operational Definition	22
Table 5. Average Hemoglobin Levels for 3 Weeks	32
Table 6. Average Erythrocyte Levels for 3 Weeks	33
Table 7. Average Hematocrit Levels for 3 Weeks	34

LIST OF FIGURE

Figure 1. Free Radical Pathophysiology of Red Blood Cells	10
Figure 2. Marigold Plant (<i>Cosmos caudatus</i> Kunth.)	15
Figure 3. Theoretical Framework.....	19
Figure 4. Conceptual framework	20
Figure 5. Diagram of the Process of Making Marigold Leaf feed.....	24
Figure 6. Research Implementation Stage	27
Figure 7. Termination Process	28

LIST OF ATTACHEMENT

Attachement 1. Ethical Clearance.....	54
Attachement 2. Nutrition Laboratory Facility Usage Form.....	55
Attachement 3. Basic Animal Handling Training Certificate For Experimental Animals	57
Attachement 4. Analysis Of Hemoglobin Level Data	58
Attachement 5. Erythrocyte Amount Data Analysis	60
Attachement 6. Analysis Of Hematocrit Value Data.....	65
Attachement 7. Research Documentation.....	69