EFFICIS OF USING DRIED BASIL (Oximum besiltsum L.) LEAVES ON THE GROWING RESEDEMANCE OF BEOMER'S

THESIS

MA, CRISTINA F. COSTELO

College of Agriculture, Food, Environment and Natural Resources

CAVITE STATE UNIVERSITY

Indang, Cavita

Cavite State University (Main Library)



T6949

HESIS/SP 636.5 C82 2017

May 2017

EFFECTS OF USING DRIED BASIL (Ocimum basilicum L.) LEAVES ON THE GROWING PERFORMANCE OF BROILERS

Undergraduate Thesis
Submitted to the Faculty of the
College of Agriculture, Food, Environment, and Natural Resources
Cavite State University
Indang, Cavite

In partial fulfillment of the requirements for the degree Bachelor of Science in Agriculture (Major in Animal Science)



Effects of using dried basil (Ocimum basilium L.) Leaves on the growing 636.5 C82 2017

MA. CRISTINA F. COSTELO May 2017

ABSTRACT

COSTELO, MA. CRISTINA F. Effects of Using Dried Basil (Ocimum basilicum L.) Leaves on the Growing Performance of Broilers. Undergraduate thesis. Bachelor of Science in Agriculture major in Animal Science. Cavite State University, Indang, Cavite. May 2017. Adviser: Dr. Magdalena N. Alcantara.

The study was conducted at the Broiler Project of the Department of Animal Science at Cavite State University, Indang, Cavite from February 23, 2017 to March 29, 2017 to determine: (1) the effect of dried basil leaves in the body weight, feed consumption, and feed conversion ratio of the broilers; (2) the level of dried basil leaves most effective on the growth performance of broilers; (3) and the cost and return of raising broilers supplemented with different levels of dried basil leaves.

Ninety-six day-old chicks were used in the study for five weeks. The treatments were: Treatment 0- Pure Commercial feed, Treatment 1- 5 g dried basil leaves/kg of commercial feeds, Treatment 2- 10 g dried basil leaves/kg of commercial feeds, and Treatment 3- 15 g dried basil leaves/kg of commercial feeds. All data gathered were subjected to Analysis of Variance (ANOVA) and to Duncan's Multiple Range Test (DMRT) for significant differences of means.

The results of the study showed similar (P > 0.05) body weight, cumulative feed consumption and feed conversion efficiency. However, broilers supplemented with dried basil leaves exhibited better numerical performance over the unsupplemented group. One hundred percent harvest recovery was recorded after the supplementation.

The highest production cost (P 3,379.82) came from birds given 15 g basil leaves while the lowest (P 3,349.44) was from the unsupplemented group. The highest net income (P 1,247.24) and return of investment (37.01%) were noted in birds given 10 g of dried basil leaves.

TABLE OF CONTENTS

	Page
BIOGRAPHICAL DATA	ii
ACKNOWLEDGMENT	iii
ABSTRACT	v
LIST OF TABLES.	ix
LIST OF APPENDIX TABLES	Х
LIST OF APPENDIX FIGURES	xi
INTRODUCTION	1
Significance of the Study	2
Objectives of the Study	2
Time and Place of the Study	2
Scope and Limitation of the Study	2
REVIEW OF RELATED LITERATURE	3
METHODOLOGY	8
Materials	8
Procurement of Stocks.	8
Experimental Design and Treatments	8
Collection and Preparation of Basil Leaves	9
Treatment Preparation	9
Bird Management	9
Data Gathering.	11

Statistical Analysis	12
RESULT AND DISCUSSION	13
Body Weight	13
Feed Consumption	14
Feed Conversion Efficiency	15
Harvest Recovery	15
Cost and Return Analysis	16
SUMMARY, CONCLUSION AND RECOMMENDATION	
Summary	18
Conclusion	19
Recommendation	19
REFERENCES	20
APPENDIX TABLES	21
APPENDIX FIGURES	25

LIST OF TABLES

Table		Page
1	Average initial and weekly body weight of broilers supplemented with different levels of dried basil (ocimum basilicum) leaves	13
2	Average cumulative feed consumption of the birds supplemented with different levels of dried basil (ocimum basilicum) leaves	14
3	Cumulative feed conversion efficiency of the birds supplemented with different levels of dried basil (ocimum basilicum) leaves	15
4	Actual cost and return from broilers supplemented with different levels of dried basil (ocimum basilicum) leaves.	17

LIST OF APPENDIX TABLES

Appendix		Page
1	Analysis of variance for body weight at Day 14	22
2	Analysis of variance for body weight at Day 21	22
3	Analysis of variance for body weight at Day 28	22
4	Analysis of variance for body weight at Day 35	22
5	Analysis of variance for Cumulative Feed Consumption at Day 14	23
6	Analysis of variance for Cumulative Feed Consumption at Day 21	23
7	Analysis of variance for Cumulative Feed Consumption at Day 28	23
8	Analysis of variance for Cumulative Feed Consumption at Day 35	23
9	Analysis of variance for Feed Conversion Efficiency at Day 14	24
10	Analysis of variance for Feed Conversion Efficiency at Day 21	24
11	Analysis of variance for Feed Conversion Efficiency at Day 28	24
12	Analysis of variance for Feed Conversion Efficiency at Day 35	24

LIST OF APPENDIX FIGURES

Figure		Page
1	Weighing of day old chicks upon arrival	26
2	Collection of basil leaves (Ocimum basilicum)	26
3	Air drying of basil leaves (Ocimum basilicum)	27
4	Grinding of dried basil leaves using a blender machine	27
5	Weighing of dried basil leaves.	28
6	Separate container of each treatment and replication used in the study	28
7	Brooding pen with day old chicks	29
8	Weighing of broilers.	29
9	Feeding the broilers.	30
10	Harvesting	30

EFFECTS OF USING DRIED BASIL (Ocimum bassilicum L.) LEAVES ON THE GROWING PERFORMANCE OF BROILERS

Ma. Cristina F. Costelo

An undergraduate thesis manuscript submitted to the faculty of the Department of Animal Science, College of Agriculture, Food, Environment, and Natural Resources, Cavite State University, Indang, Cavite in partial fulfilment of the requirements for the degree of Bachelor of Science in Agriculture (major in Animal Science). Contribution No. <u>B(A JOH</u> - II _______. Prepared under the supervision of Dr. Magdalena N. Alcantara

INTRODUCTION

Broiler Industry in the Philippines is less competitive due to higher input cost and importation. Broiler is one of the preferred meat by many people next to pork especially kids. The demand for broiler meat could rise due to our continuously growing population.

Meeting our demand for broiler meat by improving broiler production is the main aim of this study. Basil also known as Saint Joseph's Wort belongs to the mint family lamiaceae, and is one of the finest sources of many essential nutrients, minerals, and vitamins that is required for optimum health. It also contains essential oils that are known to have anti-inflammatory and anti-bacterial properties (Nordqvist et al., 2014). Supplementing basil to the diet of broilers may have a positive impact in the growth performance of the animals. It also holds many notable plant derived chemical compounds that are known to prevent disease in animals (Fortunati et al., 2009).