THE PRODUCTIVITY OF QUAIL (*Coturnix coturnix japonica*) FED ON READY-MADE BROILER FEED AND MANUALLY PREPARED DIET

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Session: 2021-22

A Thesis Submitted in Partial Fulfillment of the Requirements for the Master of Science in Poultry Science

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Chattogram Veterinary and Animal Sciences University

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JULY 2023

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July, 2023

Dedicated to My Beloved Parents

Acknowledgments

First and foremost, I would like to remember the Almighty Allah, without his profound kindness and love it won't be possible for me to complete my research and dissertation smoothly for the Master of Science (MS) degree in Poultry Science at the Department of Dairy and Poultry Science, CVASU, Chattogram.

Later, I would like to express my sincere gratitude to my respected supervisor **Dr. Mohammad Abul Hossain, Professor, Department of Dairy & Poultry Science** (DDPS), CVASU, for his academic guidance, valuable suggestions, gracious cooperation, and enthusiasm throughout the course of my study. His sensible comments and criticisms, detailed edits, and inspirational participation have encouraged me to complete my research while conducting significant obligations or responsibilities.

My co-supervisor, **Dr. Md. Saiful Bari**, **Associate Professor,** DDPS, CVASU, has provided me with academic advice, corrections, recommendations, and guidance that have helped me properly write and submit my thesis. I am extremely grateful to him.

Additionally, I would like to extend my sincere gratitude to **Mr. Goutam Kumar Debnath, Professor, and Head, including other respected teachers** as well as the personnel of the DDPS, for their valuable advice, support, and encouragement throughout my study time.

I do want to thank CVASU's internal research grant and the NST fund for making this research successful. I also want to thank the technical staff at CVASU, who showed me around the lab and explained different things. I also want to thank the staff of the PRTC at CVASU.

My friends Dr. Rony Chowdhury, Dr. Abdullah Al Masud, and Dr. Nahid Imtiaz Chowdhury deserve special gratitude for their endless support and encouragement during the entire research.

I also must thank the Coordinator of Advanced Studies & Research (CASR), Director of Research & Extension, Librarian, and all other CVASU professionals who helped me to complete my studies.

Last but not least, I am grateful to my family members and close friends for their unwavering blessings, encouragement, and support, which have enabled me to reach this point in my life. I could not ignore the contribution of my friends and other well-wishers for their inspirational support, assistance, and guidance during my academic career.

The Author

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Abbreviations	Elaborations
NRC	National Research Council
ANOVA	Analysis of Variance
CRD	Completely randomized design
ME	Metabolizable Energy
CF	Crude Fiber
CP	Crude Protein
EE	Ether Extract
CVASU	Chattogram Veterinary and Animal Sciences University
D	Day
DDPS	Department of Dairy and Poultry Science
DLS	Department of Livestock Services
DM	Dry Matter
DMRT	Duncan‘s multiple-range tests
DOC	Day-old chicks
TDN	Total Digestible Nutrients
AM	Ante Meridiem
PM	Post Meridiem
FAO	Food and Agriculture Organization
FCR	Feed Conversion Ratio
FI	Feed Intake
g/b	Gram/bird
Gm	Gram
Kg/b	Kilogram/bird
BW	Bone Weight

LWG	Live Weight Gain
TL	Tibia length
BWG	Body weight gain
Mm	Millimeter
Mg	Milligram
PRTC	Poultry Research and Training Center
P	Phosphorus
Ca	Calcium
%	Percentage
<	Less Than
>	Greater Than
e.g.	Example Given
Et al.	And his Associates
Etc.	Et cetera
Sq. ft.	Square Feet

Abstract

The study was conducted to investigate the growth performance, survivability, carcass yield traits, gastrointestinal, and productivity of quail fed on ready-made broiler feed and manually prepared feed. A total of 150 Japanese quail chicks (11 days aged) of either sex were randomly housed in 3 treatments including T_1 (control), T_2 (ready feed-Aman), and T_3 (ready feed-Nourish), each treatment was replicated 5 times with 10 birds per replicate in a completely randomized design. The birds were reared in the battery cages from d11-42 days under similar lighting, feeding, and environmental management conditions. Data on body weight (BW), feed intake (FI), feed conversion ratio (FCR), livability, carcass yield traits (dressing %, breast weight, drumstick weight, thigh weight, wing weight, back weight, and neck, etc.), gastro-intestinal organ weights (gizzard, heart weight and liver), bone quality traits (femur and tibia weight, length, width, Ca%, and P%) etc., were measured in this study. Besides, the profitability of quail rearing was also estimated to analyze the cost-benefit ratio. The overall BW was marginally improved ($P<0.06$) in ready-made commercial broiler feed (T_2) during d11-42 days of age. Apart from this, BW was also significantly ($P<0.05$) improved in the same diet (T_2) during 11-18d, 11-25d, and 11-32 days, respectively, without affecting FI and survivability. The FCR on the birds fed the T_2 diet was found to be improved ($P<0.05$) on days 11-32 and 11-39 days, respectively. Only back weight % was increased ($P<0.05$) in the quail-fed T_2 diet amongst the other traits of carcass yield of quail without affecting gastrointestinal organs. Bone tibia weight and Ca% were significantly ($P<0.05$) improved in the birds fed the T_2 diet. Besides, femur length, tibia length, and width were also marginally increased in the same diet (T_2). The results of profitability data showed that significantly ($P<0.01$) higher profit and lower cost involvement were observed in the birds fed manually –prepared diet (T_1) than those of ready-made commercial diets (T_2 and T_3). It can be concluded that quail rearing on homemade feed appears to be more economical, even though ready-made commercial broiler feed might show better potentiality for growth performance and bone quality development.

Keywords: Quail, ready-made broiler feed, home-made feed, growth performance, carcass yield, viability, bone quality, profitability