MEAT PRODUCTION PERFORMANCES OF F1 CHOI X LUONG PHUONG CHICKENS IN RATIONS CONTAINING DIFFERENT LEVELS OF METABOLIZABLE ENERGY AND CRUDE PROTEIN WITH *Perionyx excavatus* EXTRACT

A Thesis
Presented to the Faculty of the
College of Agriculture
Laguna State Polytechnic University
Siniloan, Laguna

In Partial Fulfillment
of the Requirements for the Degree
Master of Science in Agriculture
Major in Animal Science

HA ANH THU
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VISION, MISSION, QUALITY POLICY, GOALS AND OBJECTIVES

Vision

The Laguna State Polytechnic University is a Center for sustainable development initiatives, transforming lives and communities.

Mission

LSPU provides quality education through responsive instruction, distinctive research, sustainable extension and production services for improved quality of life towards nation-building.

Quality Policy

We, at LSPU are committed with continual improvement to provide quality, efficient services to the university stakeholder's highest level of satisfaction through a dynamic and excellent management system imbued with utmost integrity, professionalism and innovation.

Goals

1. Graduate Education is at the apex of the education system. In the field of education, professional who aim to continued improvement of teaching and learning in the classrooms, delivery of student services and management of educational programs.
2. Graduate education also one of the most effective means of developing capabilities related to ding research that will improve educational theory and practice in many aspects of educational process.

3. Establish a graduate school that is expected to be a molder of the Filipino minds and laboratory for the study of social, technological, economic problems besetting our people and the country today.

Objectives

1. To acquire advanced professional training and technological skills necessary for one in maximizing his/her teaching competencies and managerial ability in his/her field of specialization.
2. To produce quality graduates needed in the field of work.
3. To develop and elevate one's aesthetic and personal ideals particularly in her fields of specialization.
4. To gain advanced knowledge and skills in conducting various kinds of research in one's field of study

Republic of the Philippines
Laguna State Polytechnic University
Province of Laguna

COLLEGE OF AGRICULTURE

APPROVAL SHEET

This research entitled **"MEAT PRODUCTION PERFORMANCES OF F1 CHOI X LUONG PHUONG CHICKENS IN RATIONS CONTAINING DIFFERENT LEVELS OF METABOLIZABLE ENERGY AND CRUDE PROTEIN WITH *Perionyx exavatus* EXTRACT"** prepared and submitted by **HA ANH THU** in partial fulfillment of the requirements for the degree of **Master of Science in Agriculture** Major in Animal Science has been examined and is hereby recommended for approval.

ROBERT C. AGATEP, Ph.D.
Adviser

PANEL OF EXAMINERS

Approved by the COMMITTEE ON ORAL EXAMINATION with a grade of _____.

NESTOR N. DE VERA, Ph.D.
Chairman

LOLITA L. BEATO, Ph.D.
Member

LOLITA D. VIYAR, Ph.D.
Member

ROBERT C. AGATEP, Ph.D.
Member

FLORENCIO G. REBERTA, JR., MRD
Member

Accepted in partial fulfillment of the requirements for the degree of Master of Science in Agriculture, Major in Animal Science.

LOLITA L. BEATO, Ph.D.
Dean

Research Contribution No.:_____

ISABELITA DOMINGO, RPChE
Chairperson, Research

MA. GRACIELA C. PRADILLADA, R.G.C.
Registrar III

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DEDICATION

To Almighty God,

To my parents, Ha Van Doanh and Dinh Thi Hanh

And to all mankind especially farmers

HA ANH THU

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ABSTRACT

A 2x3 complete factorial experiment in a Randomized Complete Block Design was conducted in order to determine the meat production performances of F1 Choi x Luong Phuong chickens in rations containing different levels of metabolizable energy and crude protein with *Perionyx excavatus* extract.

Results show that the feed consumption, feed conversion efficiency, protein efficiency ratio and the gross profit margin in raising F1 Choi x Luong Phuong chickens up to 90 days of age were significantly affected by the interaction of the inclusion of 1.8% (by weight) *P.excavatus* extract and the levels of metabolizable energy and crude protein in the ration. The higher levels of metabolizable energy and crude protein in ration containing 1.8% *P.excavatus* extract significantly increased the feed consumption of the chickens. On the other hand, lowering the levels of metabolizable energy and crude protein in the ration containing 1.8% *P.excavatus* extract significantly improved the feed conversion efficiency, protein efficiency ratio and the gross profit margin. Besides, significant main effects of the inclusion of 1.8% *P.excavatus* extract and of the different levels of dietary metabolizable energy and crude protein were observed on the final body weight, weight gain, average daily gain and energy efficiency ratio. These varibles were significantly improved by the inclusion of 1.8% *P.excavatus* extract in the feeds irrespective of levels of metabolizable energy and crude protein in the ration. On the other hand, significantly higher final body weight, gain in weight and average daily gain were posted by the experimental chickens fed with ration containing higher levels of metabolizable energy and crude protein, irrespective of the

inclusion or absence of 1.8% *P.excavatus* extract in the feeds. Significantly higher energy efficiency ratio was observed among the chickens fed with experimental rations having lower levels of metabolizable energy and crude protein regardless of the inclusion or non-inclusion of 1.8% *P.excavatus* extract in the feeds. On the other hand, the dressing percentage, cut-up parts yield and carcass color, tenderness and water holding capacity were apparently unaffected by the inclusion of 1.8% *P.excavatus* extract in the feeds and the levels of metabolizable energy and crude protein in the rations. However, slight differences between sexes were observed on the dressing percentage, breast and fat yield. The males have slightly higher dressing percentage and breast yield but not fat yield compared with the female F1 Choi x Luong Phuong chickens.

The author therefore recommends that rations with 1.8% *P.excavatus* extract and containing 2772 Kcal ME/kg with 21% crude protein at 1 to 45 days of age and 2790 Kcal ME/kg with 18% crude protein at 46 to 90 days of age can be fed to improve the meat production performances and profitability in raising F1 Choi x Luong Phuong chickens. In addition, utilization studies on the use of other local-available feedstuffs in formulating feeds for F1 Choi x Luong Phuong chickens can be done to possibly lower feed cost and improve production performance. Moreover, the evaluation of the metabolizable energy and crude protein levels required by other native chicken breeds can be done in order to come up with the optimum levels of these nutrients for improved performances and more profitable production.

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