MEAT PRODUCTION PERFORMANCES OF CAY CUM CHICKENS IN RATIONS WITH DIFFERENT LEVELS OF METABOLIZABLE ENERGY AND CRUDE PROTEIN WITH PROBIOTICS

A Thesis
Presented to the Faculty of the
Graduate Studies and Applied Research
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

DIEN PHAM VANJune 2019

VISION, MISSION, QUALITY POLICY, GOALS AND OBJECTIVES

Vision

The Laguna State Polytechnic University is a center for sustainable development, initiations 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

- Graduate Education is at the apex of the educational system. In the field of education, professionals who aim to continued improvement of teaching and learning in the classrooms, delivery of student services, and management of educational programs
- 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

 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

- 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 his fields of specialization, and
- 4. To gain advanced knowledge and skills in conducting various kinds of research in one's field of study.

COLLEGE OF AGRICULTURE

APPROVAL SHEET

This research entitled "MEAT PRODUCTION PERFORMANCES OF CAY CUM CHICKENS IN RATIONS CONTAINING DIFFERENT LEVELS OF METABOLIZABLE ENERGY AND CRUDE PROTEIN WITH PROBIOTICS" prepared and submitted by PHAM VAN DIEN 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 M. DE VERA, Ph.D.** Chairman LOLITA L. BEATO, Ph.D. LOLITA D. VIYAR, Ph.D. Member Member ROBERT C. AGATEP, Ph.D. FLORENCIO G. REBERTA, JR., MRD Member 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.:_____

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DISCLAIMER

The Laguna State Polytechnic University-Siniloan Campus nor the researcher does not constitute to the promotion of the brands mentioned and/or the demotion of the other brands not mentioned herein.

DEDICATION

This priceless Master's Thesis is sincerely and lovingly dedicated to my family PHAM VAN NGHIA, NGO THI BICH, NGUYEN VAN BIEN, NGUYEN THI PHUONG.

ACKNOWLEDGMENT

This Master Thesis would not have been possible without the guidance and help of several individuals who contributed and extended their valuable assistance in the preparation and completion of this study.

Laguna State Polytechnic University, his alma mater, for the knowledge, skills, and values gained towards the fulfillment of his dream;

Dr. Robert C. Agatep, Thesis Adviser and Statistician, for the never ending encouragement, support, shared knowledge and ideas for the completion of this study;

Dr. Nestor M. De Vera, the University President, for the inspiration and being a living example of a successful manager and leader; and for being the Chairman of the Oral Defense Panel, for his wise advises and comments to improve this study.

Dr. Lolita L. Beato, his Adviser and Dean of College of Agriculture, for the comments, suggestions and guidance to finish this work and for the unbounded encouragement and steadfast support in the conduct of this study;

Dr. Lolita D. Viyar, Technical Editor, for the meaningful pieces of advice she shared and for still believing the author through his thick and thins.

Mr Florencio G.Reberta, JR the Coordinator graduate program, for sharing his expertise and genuine apprehension for the improvement of His manuscript;

LSPU-security guards, for lending the author a walky-talky, and for always securing the authors welfare.

Registrar Office family, Ma'am Bing, Ma'am Josie, Ma'am Grace, Ma'am Jai, Ma'am Julie, Ma'am Vangie, Sir Mario, and Sir McNe for the prayers and motivation.

Grateful appreciation and thanks is also extended to Mrs. BUI THI THOM for the financial support they have rendered for this study to materialize.

The Author also expresses his heartfelt and sincerest gratitude to his tender loving parents, Mr. PHAM VAN NGHIA and Mrs. NGO THI BICH for unending encouragement, unconditional love and care, guidance and support. His family supported him morally, financially, emotionally and spiritually. The author owes this success to you.

His compassionate siblings PHAM THI HUE, PHAM THI CHUYEN, for their love, kindness, and help.

ABSTRACT

PHAM VAN DIEN, Laguna State Polytechnic University Siniloan, Laguna November 2018, "MEAT PRODUCTION PERFORMANCES OF CAY CUM CHICKENS IN RATIONS WITH DIFFERENT LEVELS OF METABOLIZABLE ENERGY AND CRUDE PROTEIN WITH PROBIOTICS". Adviser: Dr. Robert C Agatep.

A 2x3 factorial experiment in Split-Plot Design in a Randomized Complete Block Design was conducted in under to determine the meat production performances of Lac Thuy chickens in rations containing different levels of metabolizable energy and crude protein with and without probiotics.

Results show that significant interaction between the effects of the inclusion of probiotics and the different levels of metabolizable energy and crude protein in the ration were detected on the final bodyweight, feed consumption, feed conversion efficiency, gross profit margin of production and protein efficiency ratio of 90 days old Cay Cum chickens.

The best effects in terms of the above-mentioned parameters were observed from the ration with probiotics and containing 2904 kcal ME/kg with 22% CP at 1 to 45 days of age and 2945 kcal ME/kg with 19% CP at 46 to 90 days of age.

No significant interaction but main effect of the inclusion of probiotics in the feeds and the different levels of ME and CP in the ration were detected on the energy efficiency ratio of the experimental chickens. The energy efficiency ratio is significantly higher among the chickens given with the feeds containing probiotics, irrespective of the ME and CP contents of the ration. Likewise, irrespective of the inclusion or non-inclusion of probiotics in the feeds, the best energy efficiency ratio was observed among the chickens fed with the ration

containing 2904 kcal ME/kg with 22% CP at 1 to 45 days old and 2945 kcal ME/kg with 19% CP at 46 to 90 days of age.

The dressing percentage, cut-up parts yield and carcass characteristics of the 90-day old Cay Cum chickens were apparently not affected by the treatments applied. Nevertheless, the carcasses from the experimental chickens have reached acceptable levels for chicken carcass characteristics in terms of these parameters.

Conclusions

Based on the findings stated above, the following conclusions were made:

- 1. Significant interaction between the effects of the inclusion of probiotics and the different levels of metabolizable energy and crude protein in the ration were detected on the final bodyweight, feed consumption, feed conversion efficiency, gross profit margin of production and protein efficiency ratio of 90 days old Cay Cum chickens. Therefore, hypothesis is not sustained.
- 2. No significant interaction but main effects of the inclusion of probiotics in the feeds and the different levels of ME and CP in the ration were detected on the energy efficiency ratio of the experimental chickens. Therefore, hypothesis is sustained.
- 3. The dressing percentage, cut-up part yield and carcass characteristics of the 90 days of age Cay Cum chicken were apparently not affected by the treatments applied. Therefore, hypothesis is sustained.

Recommendations

Based on the findings and conclusions made, the following are recommended: