MAJOR PRACTICE IN SWINE PRODUCTION

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An Undergraduate Major Practice Report Submitted to the Faculty of the Department of
Animal Science, College of Agriculture, Central Luzon State University,
Science City of Munoz, Nueva Ecija, Philippines
in Partial Fulfillment of the Requirements
for the Degree of

BACHELOR OF SCIENCE IN AGRICULTURE
(Animal Science)

FEBRUARY 2020

ACCEPTANCE SHEET

This major practice report entitled **"MAJOR PRACTICE IN SWINE PRODUCTION,"** prepared and submitted by **REICY JOEZEL D. GERONIMO,** in partial fulfilment of the requirements for the degree of **BACHELOR OF SCIENCE IN AGRICULTURE (ANIMAL SCIENCE)**, is hereby accepted:

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BIOGRAPHICAL SKETCH

The author was born on July 2, 1997 Caloocan City. She is the youngest among the three children of Mr. Joseph M. Geronimo and Mrs. Raquel D. Geronimo. She finished her primary education at Lord's Angels Montessori School, Inc. in 2009 and completed his secondary education at Lord's Angels Montessori School, Inc. in 2014.

She decided to pursue her college education at Central Luzon State University and took up Bachelor of Science in Agriculture major in Animal Science and took Swine production as field of specialization. She conducted her major practice at APO Swine Module 1 located at the Central Luzon State University, Science City of Muñoz, Nueva Ecija.

ACKNOWLEDGEMENT

The author would like to express genuine and deep gratitude to all those people who contributed and became a big part emotionally and mentally to finish and successfully go through her college life:

Her parents, Mr. Joseph M. Geronimo and Mrs. Raquel D. Geronimo for making the dreams of the author possible, for unending support and sacrifices;

A special gratitude to her partner, Aubrey S. Gabaon for the never ending love, patience and understanding during the conduct of her major practice and process of writing this manuscript until the end.

With great pleasure, the author would like to acknowledge her adviser Dr. Antonio J. Barroga for the wise council; Dr. Ramon Ceasar D. Salas for sharing his time and knowledge he has in order finish the data in this piece of work; Mr. Jamal James D. Manlapig for letting the author conduct her major practice at APO Swine Module 1 and to all the faculty member and staff of the Department of Animal Science for sharing their knowledge and skills; and to the Dean of College of Agriculture, Dr. Ernesto A. Martin, for the approval of the manuscript.

Acknowledgement is also extended to those individual whose names were not mentioned but one way or another touched the author's life and enriched her experiences in the fulfillment of this piece of work.

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ABSTRACT

GERONIMO, REICY JOEZEL D., Department of Animal Science, College of Agriculture, Central Luzon State University, Science City of Muñoz, Nueva Ecija, Philippines, **February 2020, MAJOR PRACTICE IN SWINE PRODUCTION**

Adviser: ANTONIO J. BARROGA, Ph.D.

The Department of Animal Science, College of Agriculture of the Central Luzon State University offered the major practice program with the main purpose of producing graduates which are skillful, knowledgeable and confident in their field of specialization.

The major practice was conducted from July 2019 to December 2019 at the APO Swine Module I. The student was exposed to the different management practices on the farm. It includes management of pregnant sow as well as lactating sow, suckling and weanling management and boar and dry sow management.

The APO Swine Module I recorded a farrowing rate of 62.5 percent with litter index of 1.9 from the average of 19.4 sow level for 5 months of major practice duration. During the major practice, the project has a total of 24 breeding and 15 litters. Also, the farm registered a 11.27 average piglets per litter and piglets born alive per litter is 10.93. Other production performance recorded were as follows: 9.13 piglets weaned per litter, 9.13 piglets reared per litter, 1.59 kg average birth weight, average weaning weight of 7.56 kg, pre-weaning mortality of 16.46 percent, no case of post-weaning mortality and piglets born per sow per year of 11.27.

LITERATURE CITED

Animal Health. (2015). *Record Keeping.* Retrieved from http://www.infonet-biovision.org/AnimalHeaslth/record-keeping on May 13, 2018.

Bizmid. (2009). *Hog Raising Business Guide.* Retrieved from http://entrebankph.com on May 1, 2018.

Castelo, M. A., Narrod, C. A., & Tiongco, M. M. (2008). *Structural Changes in the Philippine Pig Industry and Their Environmental Implications.* Retrieved from www.ifpri.org on May 13, 2018.

Department of Agriculture and Fisheries (DAF). (2018) *Basic housing requirements.* Retrieved from https://www.daf.qld.gov.au/business-priorities/agriculture/animals/pigs/piggery-management/housing/basic-housing on June 25, 2019

Food and Agriculture Organization (FAO). (2012) *Swine Health Management.* Retrieved from http://www.fao.org/3/i3188e/i3188e00.htm on June 25, 2019

Harper, A. (2009) *Hog Production Contracts: The Grower-Integrator Relationship.* Retrieved from https://pubs.ext.vt.edu/414/414-039/414-039.html on April 19, 2018

Humenik, F. J., Rice, J. M., Baird, C. L., & Koelsch, R. (2004*). Environmentally superior technologies for swine waste management.* Retrieved from https://www.ncbi.nlm.nih.gov/pubmed/15137402 on May 13, 2018

Iwuoha, J. P. Pig farming. (2010). *How this business is changing lives in Africa and everything you need to start your own.* Retrieved from http://www.smallstarter.com/get-inspired/how-to-start-pig-farming-in-africa/ on May 23, 2018

Janni, A. K, Nicolai, R. K, Holf, S., & Stenglein, R. M. (2012). *The Pig Site. Biofilters for Odour and Air Pollution Mitigation.* Retrieved from http://www.thepigsite.com on May 13, 2018.

Kim, S, W. (2010). *Bio-fermentation Technology to Improve Efficiency of Swine Nutrition.* Retrieved from https://www.ajas.info/upload/pdf/23-108.pdf on May 13, 2018

Mcgahan, E., Nicholas, P., Casey, K., & Hopper, K. (1998). *Housing systems for dry sows and boars.* Retrieved from https://www.daf.qld.gov.au/business-priorities/animal-industries/pigs/managing-a-piggery/housing-pigs/basic-housing-requirements on May 1, 2018

McGlone, J. J. (2013). *The Future of Pork Production in the World: Towards Sustainable, Welfare-Positive Systems.* Retrieved from https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4494389/ on May 23, 2018

National Pork Board. (2019). *Biosecurity Management Best Practice.* Retrieved from https://www.pork.org/food-safety/biosecurity-management-best-practices/ on June 25, 2019

Linden, J. (2014). *Marketing Pig.* Retrieved from http://www.thepigsite.com/articles/4916/marketing-pigs/ on May 1, 2018

Philippine Statistic Authority (PSA). (2019). *Swine Industry Performance Report.* Retrieved from Bureau of Agricultural Statistics Department of Agriculture, Philippines on May 13, 2018.

Philippine Swine Industry Research and Development Foundation (PSIRDFI) & Philippine Council for Agriculture, Forestry and Natural Resources Research and Development (PCARRD). (2013). *Swine Production in the Philippines.* Retrieved from http://www.pcarrd.dost.gov.ph/home/momentum/swine/index.php/industry-facts/142-swine-production-performance-in-the-philippines-2002-2012 on Mayy 13, 2018.

Plain, R. (2010). *Marketing Slaughter Hogs: Where, How & When.* Retrieved from http://articles.extension.org/pages/27212/marketing-slaughter-hogs:-where-when-how on May 23, 2018

Stark, J. (2017). *Swine sector in the Philippines set to grow.* Retrieved from http:// http://www.pigprogress.net/Finishers/Articles/2017/4/Swine-sector-in-the-Philippines-set-to-grow-123507E/ on April 19, 2018.

Swine Information Network. (2010). *Industry Status.* Retrieved from http://www.pcaard.dost.gov.ph/home/momentum/swine/index.php/industry-status on May 13, 2018.

The Organic Farmer (TOF). (2010). *Record Keeping for Pig Production.* Retrieved from http://www.infonetbiovision.org on May 13, 2018.

The Philippine Recommends for Pork Production. (2004). The Pork Production Committee. Los Baños, Laguna: PCARRD-DOST and Pfizer, Inc. (2005). Philippines Recommends Series No. 13-B.

Whitney, M. H. & Baidoo, S. K. (2013). *Breeding Boar Nutrient Recommendations and Feeding Management, National Swine Nutrition Guide. University of Minnesota.* Retrieved from http://www.porkgateway.org/FileLibrary/PigLibrary/Factsheets/a6449y1-0.pdf on May 13, 2018