

RESEARCH AND ANALYSIS OF
THE EFFECTS OF THE
RECENT CHANGES IN
THE POLICE OFFICERS

THE

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Indang, Cavite

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**PREVALENCE AND ASSOCIATED RISK FACTORS OF PORCINE EPIDEMIC
DIARRHEA (PED) IN DIARRHEIC PIGS OF SELECTED COMMERCIAL
SWINE FARMS IN THE PROVINCE OF BATANGAS**

Undergraduate Thesis
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Doctor of Veterinary Medicine



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ABSTRACT

ILAGAN, MELVIN JOSEPH H., Prevalence and Associated Risk Factors of Porcine Epidemic Diarrhea (PED), in Diarrheic and Non-Diarrheic Pigs from Selected Commercial Farms in the Province of Batangas. Undergraduate Thesis. Doctor of Veterinary Medicine. Cavite State University, Indang, Cavite. December 2018. Adviser: Cherry Alvarez, DVM, MS.

The study was conducted to determine the prevalence of Porcine Epidemic Diarrhea (PED) in non-diarrheic and diarrheic pigs from the selected commercial farms of 20 municipalities in the province of Batangas, to identify and correlate the corresponding risk factors, and to develop a spot map of the distribution of PED the commercial farms in the province of Batangas. Systematic random sampling was used in selecting the Eighty (80) commercial farms from which and one-hundred sixty (160) diarrheic and one-hundred sixty (160) non-diarrheic pigs came from. Farm owners were interviewed using a structured questionnaire to determine the probable risk factors associated with PED. Fecal samples were collected using a sterile cotton swab and were tested using a commercially available PED Reverse Transcription-Loop Mediated Isothermal Amplification (RT-LAMP) test kit. Results revealed a prevalence rate of 0.3% or one (1) out of Three-Hundred Twenty (320) samples testing positive to PED. Low prevalence rate in the province signifies an efficient and effective implementation of strict biosecurity by the commercial farms. Further testing of positive samples using quantitative PCR was recommended to confirm the test result. Utilization of indirect ELISA in detecting the presence of PED within the herd is also recommended to expand the scope of the study in the study of the whole operation of PED.

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An undergraduate thesis manuscript submitted to the faculty of College of Veterinary Medicine and Biomedical Sciences, Cavite State University, Indang, Cavite in partial fulfillment of the requirements for the degree of Doctor of Veterinary Medicine with Contribution No. CVMBS-2019-10. Prepared under the supervision of Dr. Cherry Alvarez, MS

INTRODUCTION

In the Philippines, swine industry is the second largest contributor to agriculture coming in second to rice. The top producing regions include Central Luzon (17.56%), Cavite-Laguna-Batangas-Quezon (CALABARZON) (13.20%), Western Visayas (10.35%), Northern Mindanao (7.48%) Eastern Visayas (7.47%) and Bicol region (7.19%) (pcaarrd.dost.gov.ph, 2017). However, notable decrease in stocks are found to pig farms due to mortality from various diseases such as hog cholera, Porcine Reproductive and Respiratory Syndrome (PRRS), Pseudorabies, Swine Flu, Circovirus, Transmissible Gastroenteritis (TGE) and Porcine Epidemic Diarrhea (PED).

Infection of swine herds with PED ranks among the most economically significant causes of viral gastroenteritis (Rodak et al., 1999). PED affects all ages, but it is found to be most fatal to neonatal piglet which may record a 100% mortality rate in piglets less than 5 days old (Morales et al., 2007). This results to reduced production of pork supplied in the market and heavy economic damage (reference). PED infection in other parts of the Philippines is limited. Recent PED outbreak