QUALITY ASSESSMENT OF POSTMORTEM EPIDIDYMAL SPERM OF NON-DESCRIPT CATTLE (*Bos taurus*) BEFORE AND AFTER DILUTION IN SEMEN EXTENDER

DHANNA SULIT VILAR

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ACCEPTANCE SHEET

This undergraduate thesis entitled **"QUALITY ASSESSMENT OF POSTMORTEM EPIDIDYMAL SPERM OF NON-DESCRIPT CATTLE (*Bos taurus*) BEFORE AND AFTER DILUTION IN SEMEN EXTENDER"** prepared and submitted by **DHANNA SULIT VILAR,** in partial fulfillment of the requirements for the degree of **DOCTOR OF VETERINARY MEDICINE**, is hereby accepted:

MARVIN BRYAN S. SALINAS, DVM
Adviser

06-14-19
Date Signed

LERMA C. OCAMPO, DVSM, Ph.D.
Co-Adviser

06-17-19
Date Signed

MARLON B. OCAMPO, DVSM, Ph.D.

06-17-19
Date Signed

CRISTO REY C. BATOY, DVM

06-14-19
Date Signed

Accepted as partial fulfillment of the requirements for the degree of **DOCTOR OF VETERINARY MEDICINE**:

ERROL JAY Y. BALAGAN, DVM, MSc
hair, Department of Morphophysiology and Pharmacology

6-17-19
Date Signed

FREDELON B. SISON, DVM, MVPE
College Research Coordinator

6-17-19
Date Signed

VIRGINIA M. VENTURINA, DVSM, Ph.D.
Dean, College of Veterinary Science and Medicine

06-17-19
Date Signed

BIOGRAPHICAL SKETCH

The author, Dhanna S. Vilar, was born on September 17, 1996 and is now currently residing in Poblacion Sur, Rizal, Nueva Ecija. She is the youngest among the three children of Adelaida S. Vilar and Danilo G. Vilar.

She took her elementary education in Rizal Central School and graduated with honors in 2009. Her pursuit of secondary education took place at Rizal National High School where she graduated as Class Salutatorian last 2013 with various awards. In 2017, she finished the degree Bachelor of Science in Animal Husbandry in Central Luzon State University and two years later, graduated with the degree Doctor of Veterinary Medicine.

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TABLE OF CONTENTS

LIST OF TABLES

LIST OF FIGURES

LIST OF PLATES

LIST OF APPENDICES

LIST OF APPENDIX TABLES

LIST OF APPENDIX PLATES

ABSTRACT

VILAR, DHANNA S., College of Veterinary Science and Medicine, Central Luzon State University, Science City of Muñoz, Nueva Ecija, Philippines, **June 2019, QUALITY ASSESSMENT OF POSTMORTEM EPIDIDYMAL SPERM OF NON-DESCRIPT CATTLE (*Bos taurus*) BEFORE AND AFTER DILUTION IN SEMEN EXTENDER**

Adviser: MARVIN BRYAN S, SALINAS, DVM
Co-adviser: LERMA C. OCAMPO, DVSM, PH.D.
Co-adviser: MARLON B. OCAMPO, DVSM, PH.D.

The study recovered epididymal sperm from non-descript cattle and determined the duration of its viability prior to and after the addition of semen extender stored at refrigerated temperature (4 to 5°C) conditions.

Epididymal sperm was collected from three non-descript cattle at a local abbatoir in Baler, Aurora. After the animals had been properly slaughtered, epididymides were then examined, sliced and cleaned for swim-up. The collected epididymal sperm was checked for volume, concentration, motility and morphology 24 hours after the addition of extender.

Results showed that the immediately recovered epididymal sperm can be viable for up to 24 hours post-mortem after the addition of extender. Moreover, the sperm volume of 0.41ml and sperm concentration of $99x10^7$ were still considered acceptable given the amount of time that had lapsed after the animal was slaughtered and the transport duration from the slaughterhouse to the laboratory. Sperm motility was reduced from 26.67±6.79 to 12.50±3.82 after 24 hours post-mortem at refrigerated temperature. There was also a noticeable decrease in the number of live sperm with the subsequent rise in the dead sperm cell numbers even with the addition of semen extender and storage at refrigerated

temperature. Cytoplasmic droplets, pyriform head, detached head, bent tail and coiled tail were found in the epididymal sperm samples which may or may not greatly affect the fertility of the bull.

Keywords: Epididymal sperm, post-mortem, cattle

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