# STUDY ON THE PREVALENCE OF AVIAN INFLUENZA INFECTION OF DIFFESRENT UPAZILLA IN CHITTAGONG DISTRICT



A clinical Report Presented in Partial Fulfillment of the Requirement for the Degree of Doctor of Veterinary Medicine

**A Report submitted by**

**Roll.No:06/31**

**Reg.No:269**

**Intern ID: D-28**

**Session: 2005-2006**

**Faculty of Veterinary Medicine**

**Chittagong Veterinary and Animal Sciences University**

**Khulshi, Chittagong-4202**

# STUDY ON THE PREVALENCE OF AVIAN INFLUENZA INFECTION OF DIFFESRENT UPAZILLA IN CHITTAGONG DISTRICT

****

**A Production Report Submitted as per approved style and content.**

|  |  |
| --- | --- |
| **--------------------------****(Signature of Author)****Jannatul Ferdausi**Roll No: 06/31Reg.No:269Intern ID: D-28Session: 2005-2006 | **-------------------------------**(Signature of Supervisor) Dr. A.K.M Saifuddin ProfessorDirector (SAQTVH) |

**Chittagong Veterinary and Animal Sciences University**

**Khulshi, Chittagong-4202**

**CONTENTS**

|  |  |  |
| --- | --- | --- |
| **Chapter** | **Title** | **Page** |
| I | Acknowledgement  | 1 |
| II | Abstract  | 2 |
| III | Introduction  | 3-4 |
| IV | Review of literature  | 5-6 |
| V | Methodology  | 7-12 |
| VI | Result & Discussion  | 13-21 |
| VII | Conclusion  | 22 |
| VIII | References  | 23 |

|  |  |  |  |
| --- | --- | --- | --- |
| III |  | **MATERIALS &METHODOLOGY** |  |
|  | 3.1. | Study Area |  |
|  | 3.2. | Study Duration |  |
|  | 3.3. | Collection of sample |  |
|  | 3.4. | List of evaluating sample |  |
|  | 3.5. | Methodology |  |
|  | 3.6. | Direct Microcopic Count |  |
|  | 3.7. | Calculation |  |
| IV |  | **RESULTS AND DISCUSSION** |  |
|  | 4.1. | Evaluating data |  |
| V |  | **CONCLUSION** |  |
| VI |  | **REFERENCES** |  |
|  |  | **APPENDIX** |  |

#### LIST OF TABLES

|  |  |  |
| --- | --- | --- |
| **Table No** | Contents | **Page No.** |
| 2.1.1. | For some definitions | 2 |
| 4.1. | Evaluation chart of probiotics | 15 |

#### LIST OF FIGURES

|  |  |  |
| --- | --- | --- |
| Serial No. | ***Contents*** | Page No. |
| 01 |  *Lactobacillus planetarium* used as probiotic  | 5 |

vi

**ACRONYMS**

FAO=Food and Agricultural Organization

WHO=World Health Organization

LAB=Lactic Acid Bacteria

CFU=Colony Forming Unit

DNA=Deoxyribo Nucleic Acid

DMC=Direct Microscopic Count

MF=Microscopic Factor

FDR=Focus Diameter Reading

FD=Focus Diameter

IG=Immunoglobulin

GIT=Gastro Intestinal Tract

VFA=Volatile Fatty Acid

GRAS=Generally Regarded as Safe

FDA=Food and Drug Administration

CVASU=Chittagong Veterinary and Animal Sciences University

**ACKNOWLEDGEMENT**

All praises are due to Almighty “Allah”. Who enabled the author to complete this study successfully Guidance, cooperation and help received from persons during the study period. The author is immensely grateful to all of them. The author doses not have adequate words to express his heartfelt genes of gratification and sincere appreciation to his benevolent teacher and report supervisor.

The author express his deep sense of gratitude, heartfelt respect and immense indebt ness to his supervisor Ashraf Ali Biswas, Professor, Department of Animal Science and Animal Nutrition, Chittagong Veterinary and Animal science University for his valuable advice, scholastic guidance, suggestions, inspiration and who was involved with this study through its inception.

The author expresses his heartful respect to Jannatara Khatun, Professor and Head, Department of Animal Science and Animal Nutrition. I would like to expressing my deep sense of gratitude and thanks to Dr. Masuduzzaman Dean, Faculty of Veterinary Medicine & Vice Chancellor, Dr. A.S.M Mahfuzul Bari Chittagong Veterinary and Animal science University.

I also express thanks to my friends Supervisors’ help and co-operation have been received from many person during the tenure of this place of report. The author is immensely grateful to all of them, although it is not possible to mention every one by name.

 **PLAGIARISM CERTIFICATE**

It is given assurance that this report is not a facsimile of any other study report. However, various information is collected from some books and journals that are given in reference list, which are essential in preparing this report. So it’s claimed to be plagiarism certificate.

Sing of the author.

**Contents**

|  |  |  |  |
| --- | --- | --- | --- |
| Chapter |  | Title | Page |
|  |  | Acronyms | i |
|  |  | Acknowledgment | ii |
|  |  | Plagiarism certificate | iii |
|  |  | Contents | iv |
|  |  | List of tables | v |
|  |  | List of figures | vi |
|  |  | Abstract | vii |
| One |  | Introduction | 1-2 |
| Two |  | Review of literature | 3- |
|  | 2.1. | Definition |  |
|  | 2.2. | History |  |
|  | 2.3. | Microorganisms used in probiotics |  |
|  | 2.4. | Mechanism of action of probiotics |  |
|  | 2.5. | Application of probiotics in animal |  |
|  | 2.6. | Preformance of poultry given probiotics |  |
|  | 2.7. | Control the growth of pathogen in rumen |  |
|  | 2.8. | Increase the Rate of Establishment of Cellulolytic Populations inthe Rumen |  |
|  | 2.9. | Probiotic stimulation of calcium uptake by enterocytes |  |
|  | 2.10. | Immunity  |  |
|  | 2.11. | Doses of probiotics |  |
| Three |  | Materials &Methodology |  |
|  | 3.1. | Study Area |  |
|  | 3.2. | Study Duration |  |
|  | 3.3. | Collection of sample |  |
|  | 3.4. | List of evaluating sample |  |
|  | 3.5. | Methodology |  |
|  | 3.6. | Direct Microcopic Count |  |
|  | 3.7. | Calculation |  |
| Four |  | Results and discussion |  |
|  | 4.1. | Evaluating data |  |
| Five |  | Conclusion |  |
| Six |  | References |  |
| Seven |  | Appendix |  |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |

**EVALUATION OF PROBIOTICS AVAILABLE IN MARKET**

**Abstract**

Probiotics are live organisms that consume as food and feed additives which have a beneficial effect on the health of human as well as animals. In this study, I have evaluated 8 renowned probiotic samples. These are Microguard, Masticare, Biogen, Biolact, Probiogut, Poultry Star Sol, Protexin boost, Gut pro by using Direct Microscopic Count (DMC) method. 1 gm from each probiotic sample to be used and then diluted with distilled water. Thereafter, staning for bacterial count. Among these sample, average difference is 20.10% per gm. Poultry Star Sol, Protexin boost, Gut pro are around to reference value as 2.8, 5.0, and 10.0 % per gm respectively. The names of this company are Reneta, Novartis and Zeus respectively. On the other hand, Probiogut, Masticare, Biolact are below the reference value as 44, 30 and 25 % per gm and their companies are Vital BD and Masticare respectively.

Key words: Probiotic, Feed additives, evaluation, DMC, Reference value, renowned company.