

LIST OF FIGURES

FIGURE NO.	CONTENTS	PAGE NO.
Figure 1	Broiler Farm	7
Figure 2	Collecting fecal samples	7
Figure 3	<i>Salmonella</i> on XLD agar	7
Figure 4	Culture Sensitivity test	7
Figure 5	Observing zone of inhibition	7

LIST OF TABLES

TABLE NO.	CONTENTS	PAGE NO.
Table 1	Methods on culture test	5
Table 2	Standard measurement of diameter of zone of inhibition.	6
Table 3	The examination result at a glance done for isolation of <i>Salmonella</i>	9
Table 4	Antimicrobial resistance pattern against <i>Salmonella</i> isolates	9
Table 5	Prevalence of antimicrobial resistance pattern against <i>Salmonella</i> isolates	10

LIST OF GRAPHS

GRAPH NO.	CONTENTS	PAGE NO.
Graph 1	Graphical representation on prevalence of <i>Salmonella</i>	8
Graph 2	Graphical representation of antimicrobial susceptibility profiling	10

LIST OF ABBREVIATIONS

ABBREVIATIONS	ELABORATIONS
MSRV Agar	Modified Semi-Solid Reppaport Vassiliadis agar
XLD Agar	Xylose lysine deoxicholate agar
S	Sensitive
I	Intermediate
R	Resistance
CLSI	Clinical and Laboratory standard Institute
etc.	Etcetera
et al	And his associates

Prevalence and Antimicrobial Susceptibility Profiling of *Salmonella* in broiler farms at Patiya, Chittagong

ABSTRACT

The aim of this study was to determine the prevalence of *Salmonella* infections in broiler farms and their antimicrobial susceptibility profiling test at Patiya, Chittagong. Bacteria isolated from pooled fecal samples of broiler at Patiya, Chittagong were screened for the presence of *Salmonella spp.* A total of 30 pooled fecal samples were tested during 01 March 2017 to 06 April 2017 and 05 July 2017 to 03 August 2017 at PRTC (Poultry Research and Training Centre), CVASU (Chittagong Veterinary and Animal Sciences University), where 9 (30%) samples were positive for *Salmonella* through all classical bacteriological tests. Isolated *Salmonella* were tested for resistance to 5 different antimicrobial agents such as Amoxicillin, Ampicillin, Ciprofloxacin, Salfamethazole and Colistin sulphate which was carried out by the Kirby-Bauer disc diffusion method as per recommendation of CLSI and efficacy of antibiotics was determined by measuring the diameter of the zone of inhibition that results from diffusion of the agent into the medium surrounding the disc. The *Salmonella* were found 88.89%, 88.89% and 66.67% resistance to Amoxicillin, Ampicillin and Salfamethazole respectively. 77.78% samples were sensitive & 11.11% samples were intermediate to Colistin Sulphate which was the highest in sensitivity followed by 55.56% sensitive to Ciprofloxacin. The growth of resistance against antibiotic was due to carelessly using antibiotic through farm owner without maintaining dosage prescribed by veterinarians.

Key Words: Prevalence, Broiler, *Salmonella*, Antimicrobial susceptibility profiling