**A STUDY ON SEROPREVALENCE OF SALMONELLOSIS IN COMMERCIAL FARMS AND BACKYARD CHICKENS AT CHITTAGONG DISTRICT IN BANGLADESH**

**ABSTRACT**

The study was conducted in Chittagong region from 20th October, 2013 to 22nd December, 2013 to know the seroprevalence of *Salmonella* infection in six commercial farms- two breeder, two broiler and two layer farms and 50 backyard chickens from live bird market. A total 200 blood samples were collected. All sera samples were examined by rapid serum plate agglutination (RPA) test using commercial *Salmonella* (SP) antigen to determine the presence of *Salmonella* antibodies in the sampling birds. The results of serological tests were analyzed statistically. The overall seroprevalence of *Salmonella* was recorded (26%) whereas in breeder, broiler, layer and backyards it was 24%, 10%, 44% and 26% respectively. Clinical tissue samples from liver, spleen, heart, retained egg yolk were collected. These samples were primarily cultured on the plates of MacConkey agar. On MacConkey agar media gives the colorless, smooth, shiny and round colonies which also confirms the *Salmnella* infection in chickens. In this study the highest seroprevalence of *Salmonella* was found in layer (44%) and lowest in broiler (10%). The findings indicates that, a significant level of salmonellosis was present in different areas of Chittagong region.

**Key words:** Seroprevalence, *Salmonella*, Breeder, Broiler, Layer, Backyard, Chicken