ESTIMATION OF Avian Influenza (AI) ANTIBODY TITER IN EGG YOLK TO THE AI ANTIBODY TITER IN BLOOD SERUM ON CHICKEN

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ABSTRACT

The risk transmission of Avian Influenza (AI) has been increased among poultry in Indonesia. Vaccination program become strategic prevention of its transmission. Monitoring vaccination with using blood serum could be replaced with using egg yolk because hens transferred the antibody for their offspring through the eggs. The aim of this research was to know the estimation the diversity of Avian Influenza (AI) antibody titer in egg yolk to the AI antibody titer in blood serum on chicken. The research was conducted in laying chicken farm in Ponggok subdistrict, Blitar where the total used samples are 90 serum samples and 90 eggs samples. Serological test that used in this research was Hemagglutination Inhibition (HI) test. The result of statistical analysis using Regression and Correlation Test showed that between blood serum with egg yolk has a linear relationship. The linear relationship could be written with equation : Y = 0.949+1.824X. Letter “X” as titer log 2 of egg yolk and letter “Y” as titer log 2 of blood serum. Major contribution from egg yolk to the blood serum as much as 69%. The conclusion of this research showed significant differences (p<0.05) between AI antibody titer in egg yolk and AI antibody titer in blood serum.

Keywords: Estimation, AI antibody titer, egg yolk, blood serum, chicken