ABSTRACT

MASDA ADMI. The Effectiveness of Ethanolic Extracts of Sambiloto, Adas and Sirih Merah Against Avian Influenza Virus on Broiler Chicken. Under direction of AGUS SETIYONO and IETJE WIENTARSIH.

The use of antiviral drugs had been caused resistance against H5N1 avian influenza virus, thus it was crucial to find more effective alternative medicine. The objective of this research was to study the effect of different concentration of ethanol extract formula of sambiloto, adas, and sirih merah in broiler infected with avian influenza virus. Samples were divided into two groups, vaccinated and unvaccinated. Each groups consist of five treatment, F1-5%, F2-7.5%, F3-10%, F4-simplisia, and control. All broilers were challenged with H5N1 AI virus after treated with herb ethanol-extract. Observations were done on performances, leukocyte differentiation, antibody titer, survival, and antigen distribution in lymphoid organ, liver, and intestine. The results showed that the body weight were statistically not significant (P > 0.05) in the 4th and 6th week of old. Evaluation on leukocyte differentiation was also shown not significant statistically. The high level of antibody titer and survival bird was found in broiler treated with 5% ethanol extract of sambiloto, adas, and sirih merah, and vaccinated (II-FI 5%). Antigen distribution in the lymphoid organ, liver, and intestine was quite high in the vaccinated broiler, and vice versa.

Keywords: H5N1 AI Virus, Lymphoid Organ, Medicinal Plants, AI Vaccine, Broiler Chicken.