

HISTOPATOLOGIS HEPAR AYAM PETELUR YANG DIINFEKSI Avian Pathogenic Escherichia Coli (APEC) SETELAH DIBERI KOMBINASI EKSTRAK SAMBILOTO (*Andrographis Paniculata* Nees.) DAN MENIRAN (*Phyllanthus niruri* Linn.)

Muhammad Rif'at Akhsan

ABSTRACT

The purpose of the research is to know combination of meniran extract (*Phyllanthus niruri* Linn.) and sambiloto extract (*Andrographis paniculata* Nees.) to the histopathological liver layer of chicken infected with APEC (*Avian Pathogenic Escherichia coli*). This research used twenty four of thirty two weeks old layer hens, divided into six treatment groups, each of group contain of four layer hens. Treatment groups consists of P(-) (suspension of CMC Na 0.5% + aquadest), P(+) (Suspension of CMC Na 0.5% + *E. coli* bacteria with concentration 10^8 CFU/ml/kgBW), P(Extract) (combination of meniran extract (*Phyllanthus niruri* Linn.) with 20% concentration and sambiloto extract (*Andrographis paniculata* Nees.) with 20% concentration + aquadest), P1, P2, and P3 (each of group given with meniran extract (*Phyllanthus niruri* Linn.) and sambiloto extract (*Andrographis paniculata* Nees.) 30% and 10%, 20% and 20%, also 10% and 30% + *E. coli* bacteria with 10^8 CFU/ml/kgBW concentration). Observation with hepatocyte cell necrosis, degeneration of hepatocyte cell and inflammation portals. Data analysis was performed with the *kruskall-wallis* test and continued with the *mann-whitney* test. This research showed significant difference ($p < 0.05$) between each treatment group. The conclusion of this research showed that combination meniran extract (*Phyllanthus niruri* Linn.) and sambiloto extract (*Andrographis paniculata* Nees.) can effect the liver histopatology with the best combination to reduce the level damage due to APEC infection is 20% : 20%.

Keywords: APEC (*Avian Pathogenic Escherichia coli*), *Phyllanthus niruri* Linn., *Andrographis paniculata* Nees., cell necrosis, degeneration of hepatocyte cell, inflammation portals, Liver.