

ABSTRACT

The objective of the research is to know the differences of the number of *Culicoides* and the number of *Culicoides* which contains of *Leucocytozoon* sporozoites in the chicken farms, which is free of Leucocytozoonosis and the chicken farm which is infected with Leucocytozoonosis.

The experiment was located at three chicken houses, those are K1 (the prevalence of Leucocytozoonosis was 0%), K2 (the prevalence of Leucocytozoonosis was 5% to 10%), and K3 (prevalence of Leucocytozoonosis was 11% to 20%). From each of the chicken houses, it was able to be caught the *Culicoides* flies which was the vector of *Leucocytozoon* parasite. The number of *Culicoides* were 830 flies in K1, 2,853 flies in K2 and 827 flies in K3. After doing the isolation of *Leucocytozoon* sporozoites for all the flies, the result was 0% *Culicoides* flies in K1, 42% *Culicoides* flies in K2 and 68.8% *Culicoides* flies in K3 contained *Leucocytozoon* sporozoites in their bodies.

Based on the data and the analysis of Anava statistic, the result showed there was a significant difference of the number of *Culicoides* which was able to be caught in chicken houses of K1 and K2 also in K2 and K3, but there was no significant difference between K1 and K3. It means no correlation between the number of *Culicoides* and the prevalence of Leucocytozoonosis. By using the test of X^2 , it showed that there was a significant difference of the number of *Culicoides* which contain *Leucocytozoon* sporozoites in among of the three experiment chicken houses.

The conclusion of the research showed that the *Culicoides* flies which contained the *Leucocytozoon* sporozoites influenced on the prevalence of Leucocytozoonosis in the study areas.

Key words : *Leucocytozoon sp.*, *Culicoides sp.*, sporozoite