## ABSTRACT

Key Words : EDS'76 vaccine

Vaccination

Immune response

The objective of this research is to study the influence of single (EDS'76) and combined (EDS'76, ND, IBD and IB) oil adjuvant inactivated vaccines; the influence of virus propagation medium: (alantoic fluid and tissue culture); the influence of vaccine application (intramuscularly and subcutaneously) against the immune response development post vaccination.

Layer chickens of 15 weeks of age were used in this experiment and had been vaccinated with ND, IBD and IB vaccines. Chickens were divided into eight groups. Four groups of tested vaccines, three groups of commercial vaccines and one group of control vaccine. Each group contains of five chickens and the total were 80 chickens. After 28 days post vaccination, the collected blood serum of all groups were tested for antibody titer by HI method (EDS'76 and ND) and ELISA (IBD and IB).

Research methode was true experiment. Information regarding the influence of independent variabels (inactivated EDS'76 oil adjuvant vaccine) on dependent variabel (antibody titer in blood serum) were collected using factorial design. Data for analysis were the titer of antibody.

Technical analysis to conform the hypothesis was analysis of variance. As there were significant defferences in some factors, the analysis to be continued to t test. The statistical result is significant if  $p \leqslant 0.05$ .

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The result showed that there was no significant deference of the antibody titer between the types of single vaccine and combined vaccine; between the types of virus propagation allantoic fluid and tissue culture and between the vaccine aplication intramuscularly and subcutaneously. Besides, there was no interaction within variabel combination and there was no abnormal egg physically.