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Trials for Avian Influenza Vaccination on Grazing Broiler Ducks in Mekong Delta in Vietnam

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Abstract

Introduction:

Avian Influenza (AI) was broken out in Vietnam. The vaccination procedure with two shots (at 14 and 42 days old) has been applying, as the second shot (at 42 days old) is too near the slaughter age so the farmers were not encouraged with.

Results from the survey showed that the rate of second shot reached only 45.8–73.1 %. It is necessary to have an early and efficient vaccination procedure for broiler ducks before grazing (at 21 days old), so the spread of AI could be controlled.

Materials and methods:

Under the fund of World Bank (WB), the trials of early AI vaccination for broiler ducks have been carried out by VAHIP, involved with two stages:

1. Lab. trials: 7 groups of ducks with different AI vaccination procedures were ranged, then blood sampling and challenging were done at 35–42 and 56 days old to examine the antibody response, dead birds as well as virus excretion. The best results were selected to apply on field.

2. Field trials: three selected groups were: 1 and 14; 14; 7 and 21 days old. Things do the same as lab. trials.

3. Results were assessed to apply.

Results:

The vaccination group at 7 and 21 days old showed antibody response ($\geq 4 \log_2$) of 55.0–62.5 % and 16.7–85.0 % ; alive rate after challenge was 85.7 % and 100 % at 35 and 56 days old resp. Virus excretion levels were 0.80–1.00 and 0.00–0.10 at days 4 and 12 after challenge resp. while this level was 30–250 times higher in control group.

Discussion and references:

The results will be examined in larger fields. However, the results will open a direction for applying an early AI vaccination procedure to control AI on grazing broiler ducks.

Keywords: Antibody response, avian Influenza, Early vaccination, Grazing ducks, Virus excretion