

ASSESSMENT OF *Ornithobacterium rhinotracheale* (ORT) ANTIBODY TITER FLUCTUATION ON SOME CHICKEN BREEDS AFTER VACCINATION WITH ORNITIN TRIPLE

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Abstract

The level of ORT antibody titer (ORT Ab) is one of the tools to monitor chickens infected with ORT field challenge or ORT vaccination. However, Vietnam still does not have data to recommend the level of ORT Ab when chickens respond immunity to ORT disease. This study aimed to investigate ORT Ab on different chicken breeds (Noi, Ac, Tre, and Luong Phuong) and different types of chickens (layer and broiler) after vaccination with Ornitin Triple vaccine from the data of field trials from 2019 to 2021. The results showed that the ORT Ab in 4 broiler breeds post-vaccination was significantly higher than pre-vaccination ($P < 0.001$). After 2 weeks of vaccination, the ORT Ab of Ac breed was significantly lower than the other breeds with 14,106. However, 4 weeks after vaccination, the ORT Ab of Lương Phương (24,576) was the lowest; The ORT Ab of Noi (44,574) and Ac (41,175) chicken breeds had higher than Tre (31,701) and Luong Phuong chickens ($P < 0.001$). In addition, ORT Ab in vaccinated Isa Brown groups after 8 weeks was significantly higher than in the control group (1736), reached 18,078 in vaccinated at 8 weeks old group, and average titers of 28199 in vaccinated at 8 and 12 weeks old. At 65 weeks of age, ORT Ab remained high at 15,891 and there was no difference when using a single shot versus with booster shots Ornitin Triple vaccine. In summary, ORT Ab was different across chicken breeds and was last longer than 65 weeks of age.

Keywords: ORT; ORT vaccine; Ornitin triple; Vietnam local chicken