

Experience of the use in broiler chickens of a live attenuated vaccine subtype B, chicken origin, strain 1062, against avian Metapneumovirus (aMPV)

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Objectives: This study was conducted to assess the efficacy of a live attenuated vaccine against aMPV, subtype B, chicken origin, strain 1062, in a broiler integration with respiratory problems diagnosed as Swollen head syndrome (aMPV) by the integration's veterinary services.

Materials & Methods:

The whole comparative study was carried out on the same broiler farm, during 4 consecutive batches, with a total length of 8 months (2 batches without vaccination against aMPV and 2 vaccinated). The farm comprises of six shed, with a capacity of 240,000 birds per cycle. A total of 917,000 birds were evaluated. First two batches were designated as Before Vaccination 1 (BV1) and Before Vaccination 2 (BV2) (vaccination programme: Infectious Bronchitis in hatchery + Gumboro disease by oral route in the farm, 7 and 14 days, vaccination schedule against IBDV was set up based on Deventer's formula). Vaccinated batches presented the same vaccination programme but they were also vaccinated against aMPV with a subtype B, chicken origin, 1062 strain, it was applied on day 0 by coarse spray. These two batches vaccinated against aMPV were designated During Vaccination 1 (DV1) and During Vaccination 2 (DV2).

We made the assessment for mortality, Average Daily Gain (ADG), Feed Conversion Rate standardised at 2 kg of weight (FCR_{2000}), and body weight at 41 days of age for all batches.

Results & Conclusion:

The mortality of the unvaccinated batches (6,23% and 4,08%) showed a significant difference with the vaccinated batches: DV1 3,05% and DV2 3,53%, it resulted to a 36% decrease in mortality between the mean of the unvaccinated batches and the vaccinated batches.

The ADG of the unvaccinated batches (57.21 and 55.09 g/day) showed a significant difference with the vaccinated batches: DV1 61.66 g/day and DV2 59.86 g/day.

The feed conversion rate was standardised at 2 kg, it could be observed a decrease in FCR_{2000} of 0.205 kg feed/kg meat, between vaccinated and unvaccinated batches.

The mean body weight at 41 days of the two vaccinated batches showed a 7% improvement.

These improvements were directly related to health improvement of the flocks (decreased symptoms and mortality) which resulted to a more efficient use of the feed.

Keywords: *Metapneumovirus, vaccination, chickens.*