

APPLICATION OF THE MB-1 ATTENUATED INFECTIOUS BURSAL DISEASE VACCINE ON DAY-OLD ISA BROWN LAYERS

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Abstract

The objectives of this study were evaluate the safety and effectiveness of a new approach to Gumboro disease prevention on layer chickens by the attenuated Infectious Bursal Disease vaccine named MB-1. Over 50,000 day-old Isa Brown chicks were injected with MB-1 vaccine mixed with HVT&CVI Marek's vaccine by subcutaneous injection at the hatchery. Elisa was used to test the antibody titer of IBD and ND at 1, 14, 18, 21, 24, 28, 32, 35, 42, and 56d. Bursa index, bursal smears on FTA cards, and bursa lesion scores will be taken from 6 birds At 21, 28, 35, 42d. On days 35, and 42; 10 feather follicles were considered the interference of MB-1 vaccine with the MD vaccine virus. The MDAs were 3876. The RT-PCR result showed that MB-1 was early in the Bursa from 21 – 42d, and Marek serotype 1 and 3 vaccine viruses were found from feather follicles at 42d proving that no interference of the vaccine of MB-1 with the Marek vaccine virus. Bursa Index and Bursa Lesion Score of chickens receiving the MB-1 vaccine were in the normal range and showed signs of recovery at 32d. The average ND antibody titer was 1411 at 24d, 5581 at 28d, and reached a high level at 56d (7822; CV 39.38%) which proved that MB-1 did not affect the humoral immune response. Moreover, MB-1 induced high IBD antibody titers, reaching an average of 1730 titers at 24d, 3330 titers at 28d, and maintained at a high level until 56d.

Keywords: Antibody titer; attenuated IBD vaccine; Gumboro; localization; MB-1