

ABSTRAK

PENGARUH PEMBERIAN SANGROVIT®[□], FORMI® NDF, DAN KOMBINASINYA TERHADAP TITER ANTIBODI *NEWCASTLE DISEASE* AYAM BROILER

Dewi Uma Ervika Ratnasari
17/412413/KH/09309

Newcastle disease merupakan salah satu penyakit pada ayam yang disebabkan oleh virus *Newcastle Disease Virus* (NDV) dan menimbulkan gejala klinis seperti pernapasan berat, leher bengkok, dan terkadang adanya kelumpuhan total. Pengobatan yang efektif untuk menangani penyakit ND belum ditemukan, namun dapat dilakukan pencegahan yaitu dengan vaksinasi serta upaya peningkatan respon imun ayam. Sangrovit® merupakan imbuhan pakan dengan kandungan *sanguinarine* yang mampu menekan proliferasi mikroba termasuk virus. Formi® NDF memiliki komposisi asam format dan juga sodium diformat yang dapat memberikan proteksi antibakterial serta mampu meningkatkan absorpsi nutrisi pada ayam. Penelitian ini bertujuan untuk mengetahui pengaruh pemberian Sangrovit®, Formi® NDF, beserta kombinasinya terhadap titer antibodi ND pada broiler.

Penelitian ini digunakan 55 ekor DOC *strain* MB 202 Platinum yang dibagi menjadi 4 kelompok. Kelompok 1 sebanyak 10 ekor yaitu kelompok tanpa perlakuan (Kontrol), kelompok 2 sebanyak 15 ekor dengan perlakuan Sangrovit® dosis 62.5 mg/500 gr pakan, kelompok 3 sebanyak 15 ekor dengan perlakuan Formi® NDF dosis 0.5 gr/500 gr pakan dan kelompok 4 sebanyak 15 ekor dengan perlakuan kombinasi Sangrovit® dosis 37.5 mg/ 500 gr dan Formi® NDF 0.5 gr/500gr pakan. Pada hari ke-4 dilakukan vaksinasi ND-IB *live*.

Hasil dari penelitian menunjukkan rerata titer antibodi ND pada kelompok 1, 2, 3, dan 4 berturut-turut yaitu $2^{1.8}$, 2^2 , $2^{2.8}$, dan 2^2 , sedangkan hasil pada *Geometric Mean Titre* diperoleh hasil 35, 40, 70 dan 40. Hasil analisis dengan menggunakan uji *Kruskal-Wallis* menunjukkan tidak adanya perbedaan yang signifikan antar kelompok. Kesimpulan dari penelitian ini adalah pemberian Sangrovit®, Formi® NDF, beserta kombinasinya tidak memberikan pengaruh yang signifikan terhadap titer antibodi apabila ditinjau dari uji HI.

Kata kunci : Sangrovit®, Formi® NDF, *Newcastle disease* (ND), titer antibodi

ABSTRACT

THE EFFECTS OF SANGROVIT®, FORMI® NDF, AND THEIR COMBINATION ON NEWCASTLE DISEASE ANTIBODY TITERS IN BROILERS

Dewi Uma Ervika Ratnasari
17/412413/KH/09309

Newcastle disease is a disease in chickens caused by the Newcastle Disease Virus (NDV) and causes clinical symptoms such as heavy breathing, crooked neck, spinning, and sometimes complete paralysis. Effective treatment for ND has not been found, but prevention can be done by vaccination to increase the immune response of chickens. Sangrovit® is a feed additive containing sanguinarine that has the capability to suppress the proliferation of microbes including viruses. Formi® NDF is a feed acidifier that contains formic acid and sodium diformate which can provide antibacterial protection and increase nutrient absorption in chickens. This study aims to determine the effect of Sangrovit®, Formi® NDF, and their combinations on broilers' ND antibody titers.

This study used 55 DOC strains of MB 202 Platinum which were divided into 4 groups. Group 1 contained 10 chickens were the untreated group (Control), group 2 contained 15 chickens were treated with Sangrovit® dose of 62.5 mg / 500 g of feed, group 3 contained 15 chickens were treated with Formi® NDF with a dose of 0.5 gr / 500 gr of feed and group 4 contained 15 chickens were treated with a combination of Sangrovit® with a dose of 37, 5 mg / 500 gr and Formi® NDF 0.5 gr / 500gr feed. On day 4, chickens were given ND vaccination.

The results of the study showed that the mean ND antibody titers in groups 1, 2, 3, and 4 were $2^{1.8}$, 2^2 , $2^{2.8}$, and 2^2 , respectively, while for the *Geometric Mean Titers* results of each groups were 35, 40, 70 and 40, respectively. The results of the analysis using the Kruskal-Wallis test showed no significant difference among groups. The conclusion of this study is that Sangrovit®, Formi® NDF, and their combinations showed no significant difference in antibody titer of broilers vaccinated with ND based on HI test.

Keyword : Sangrovit®, Formi® NDF, *Newcastle disease* (ND), antibody titer