

PENGARUH PENAMBAHAN PREMIX MINERAL PADA PAKAN TERHADAP PERFORMA, IMUNITAS DAN KUALITAS TELUR AYAM PETELUR BEREMBRIO SEBAGAI MEDIA KULTUR VIRUS

INTISARI

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Penelitian ini bertujuan untuk mengetahui pengaruh penambahan premix mineral organik dalam pakan ayam petelur terhadap performa, imunitas dan kualitas telur ayam berembrio (TAB) yang akan digunakan sebagai media kultur virus Avian Influenza. Penelitian ini menggunakan 72 ekor ayam petelur strain White Leghorn umur 43 minggu yang dibagi menjadi tiga kelompok perlakuan. Setiap perlakuan diberikan replikasi tiga kali, untuk setiap perlakuan terdiri dari 8 ekor ayam dengan komposisi 1 jantan dan 7 betina, dipelihara selama 49 hari. Perlakuan yang diberikan terdiri dari pakan komersial tanpa penambahan premix mineral sebagai kontrol (0), pakan komersial dengan penambahan 0,25% premix mineral, dan pakan komersial dengan penambahan 0,50% premix mineral. Parameter yang diamati adalah performa (produksi telur, *feed intake*, *feed conversion ratio* (FCR), kualitas telur ayam berembrio (fertilitas, daya hidup TAB, hasil uji penggunaan TAB tersebut dan imunitas ayam (titer antibodi avian Influenza (AI) strain H9N2, hematologi darah, dan berat organ limfoid. Data yang didapat dianalisis variansi pola searah, jika terdapat perbedaan nyata antar perlakuan dilanjutkan dengan uji DMRT. Hasil penelitian menunjukkan bahwa pemberian premix mineral hingga 0,50% tidak berpengaruh terhadap performa, angka fertilitas dan daya hidup TAB maupun titer antibodi terhadap virus AI H9N2 berat organ limfoid dan hematologi darah namun meningkatkan jumlah eosinofil. Hasil isolasi virus AI H9N2 pada ayam tanpa penambahan premix mineral dan penambahan premix mineral 0,25% mampu menghasilkan TAB yang dapat digunakan sebagai media kultur virus. Sehingga dapat disimpulkan bahwa penambahan premix mineral dalam pakan hingga 0,50% belum mampu meningkatkan performa, imunitas dan kualitas telur ayam berembrio namun meningkatkan jumlah eosinofil darah.

Kata kunci: Imunitas, Media kultur virus, Performa, Premix mineral, Telur ayam berembrio

**EFFECTIVENESS OF MINERAL PREMIX FEED SUPPLEMENT ON
PERFORMANCE, IMMUNITY AND THE QUALITY OF WHITE
LEGHORN EMBRYONATED CHICKEN EGGS
AS VIRAL GROWTH MEDIA**

ABSTRACT

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This study is aimed to evaluate the effect that additional organic mineral premix in laying hens feed on the performance, immunity and quality of embryonated chicken eggs (ECE) which would be used as a culture medium for the Avian Influenza virus. This study used 72 laying hens White Leghorn strain aged 43 weeks which were divided into three treatment groups. Each treatment was replicated three times, for each treatment consisted of seven females and one male, reared for 49 days. The treatments were addition of mineral premix 0, 0.25% and 0.50%. Commercial feed without the addition of mineral premix as a control, commercial feed with the addition of 0.25% mineral premix, and commercial feed with the addition of 0.50% mineral premix. Parameters observed were performance (egg production, feed intake, feed conversion ratio (FCR), quality of embryonated chicken eggs (fertility, ECE viability, test results using the ECE and chicken immunity (antibody titer of avian influenza (AI) H9N2 strain in chickens), blood hematology, and lymphoid organ weight. The data obtained were analyzed using one way design if there were significant differences between the treatments it was continued with the DMRT. The results showed that administration of mineral premix up to 0.50% had no effect on performance, fertility and survival ECE and antibody titers against AI H9N2 virus, weight of lymphoid organs and blood hematology but increased the number of eosinophils. The results of isolating the AI H9N2 virus in chickens without adding mineral premix and adding 0.25% mineral premix were able to produce ECE which can be used as a virus culture medium. So it can be concluded that the addition of mineral premix in feed up to 0.50% has not been able to improve the performance, immunity and quality of embryonated chicken eggs but has increased the number of blood eosinophils.

Keywords: Embryonated chicken eggs, Immunity, Mineral premix, Performance, Viral growth media