

Kombinasi Asam Amino Metionin dan Bakteri Asam Laktat Dalam Pakan Sebagai Upaya Menurunkan Efek Toksisitas Aflatoksin B1 Pada Ayam Broiler

Yusuf Adkha

13/346223/PT/06456

INTISARI

Penelitian ini bertujuan untuk menurunkan toksisitas aflatoksin B1 yang terdapat di dalam ransum ayam broiler melalui penambahan metionin dan bakteri asam laktat dalam pakan terhadap kinerja pertumbuhan ayam broiler. Penelitian ini terdiri atas empat perlakuan, setiap perlakuan terdiri atas 12 ulangan dengan ayam broiler strain New Lohmann MB 202 yang dipelihara sampai umur 35 hari. Pakan (*basal diet*) broiler dibuat sesuai dengan NRC (1994) dari hari ke-8 sampai hari ke-35. Ransum yang digunakan untuk setiap perlakuan sebagai berikut: AF = AFB1 (50 µg/kg), AFM = AFB1 (50 µg/kg) + metionin (0,8%), AFB = AFB1 (50 µg/kg) + bakteri asam laktat (1 g/100 mL), dan AFMB = AFB1 (50 µg/kg) + bakteri asam laktat (1 g/100 mL) + metionin (0,8%). Variabel yang diamati meliputi konsumsi pakan, bobot badan, konversi pakan, panjang usus halus, dan bobot relatif hati. Konsumsi pakan, bobot badan, konversi pakan, panjang usus halus dan bobot relatif hati dianalisis variansi dengan mengikuti rancangan acak lengkap pola searah, apabila terjadi pengaruh yang nyata dilanjutkan dengan analisis *Duncan's multiple range test*. Hasil analisis variansi menunjukkan bahwa penambahan metionin dan bakteri asam laktat pada ransum yang terkontaminasi aflatoksin tidak mempengaruhi konsumsi pakan, konversi pakan, dan panjang usus halus ayam broiler. Perlakuan AFB tidak menunjukkan perbedaan pertambahan bobot badan dibandingkan perlakuan kontrol (AF), namun terlihat penurunan pertambahan bobot badan akibat perlakuan AFM dan AFMB. Perlakuan AFMB memiliki bobot hati paling ringan dibandingkan dengan AF, AFM, dan AFB. Kesimpulan dari penelitian yang sudah dilakukan adalah penambahan metionin dan bakteri asam laktat pada ransum yang terkontaminasi aflatoksin terbukti mampu memperbaiki kinerja hati yang ditandai dengan paling kecilnya bobot hati.

Kata kunci: Metionin, Bakteri asam laktat, Aflatoksin B1, Detoksifikasi, Ayam broiler

Combination of Methionine and Lactic Acid Bacteria in Feed to Suppress Effect Aflatoxin B1 Toxicity in Broiler Chickens

Yusuf Adkha

13/346223/PT/06456

ABSTRACT

The aim of this research was to decrease aflatoxin B1 toxicity in broiler ration by addition of methionine and lactic acid bacteria to measure the growth performance of broiler chickens. This study consisted of four treatments and each of the treatment had 12 replications using New Lohmann MB 202 strain broiler which was being maintained until 35 days. The basal diet was made based on NRC (1994) from 8 to 35 days. The rations used for each treatment was as follows: AF = AFB1 (50 µg / kg), AFM = AFB1 (50 µg / kg) + methionine (0.8%), AFB = AFB1 (50 µg / kg) + lactic acid bacteria (1 g / 100 mL), and AFMB = AFB1 (50 µg / kg) + lactic acid bacteria (1 g / 100 mL) + methionine (0.8%). The variables that is being observed was feed intake, body weight, feed conversion, long intestine length, and liver relative weight. Feed consumption, body weight, feed conversion the length of the small intestine and the relative weights of the liver was analyzed using completely randomized design one way ANOVA, and will be followed by Duncan's multiple range test (DMRT) analysis if there is a significant effect. The results showed that the addition of methionine and lactic acid bacteria in the aflatoxin contaminated feed did not affect feed intake, feed conversion, and the small intestine length of broiler chickens. The AFB treatment showed there was not any difference of the body weight gain compared to control treatment (AF), but there was decrease of body weight gain due to the AF and AFMB treatments. The AFMB treatment showed a lighter liver weight compared to AF, AFM, and AFB. The conclusion was the addition of methionine and lactic acid bacteria in the aflatoxin contaminated rations proved able to improve the performance of the liver characterized by the least weight of the liver.

Keywords: Methionine, Lactic acid bacteria, Aflatoxin B1, Detoxification, Broiler.