

EFISIENSI PROTEIN DAN ENERGI AYAM PEDAGING YANG MENDAPATKAN AIR MINUM DENGAN PENAMBAHAN EKSTRAK DAUN ASAM JAWA DAN DAUN MENIRAN

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INTISARI

Penelitian ini bertujuan untuk mengetahui pengaruh penambahan ekstrak daun asam jawa (*Tamarindus indica* L.) dan ekstrak daun meniran (*Phyllanthus niruri* L.) pada air minum terhadap efisiensi protein dan energi ayam pedaging. Penelitian ini menggunakan 100 ekor *Day Old Chicks* (DOC) ayam pedaging strain New Lohmann MB-202 *unsexed* selama 35 hari. Setiap ayam dalam penelitian ini mendapatkan ransum basal yang sama dan salah satu dari perlakuan: air minum tanpa suplementasi ekstrak (L0; kontrol), air minum + 250 mg/L ekstrak daun asam jawa (L1), air minum + 500 mg/L ekstrak daun asam jawa (L2), air minum + 250 mg/L ekstrak daun meniran (L3), atau air minum + 500 mg/L ekstrak daun meniran (L4). Setiap kelompok perlakuan diberikan replikasi 4 kali, masing-masing menggunakan 5 ekor ayam di setiap kandang replikasi. Variabel yang diamati meliputi konsumsi pakan, pertambahan bobot badan, konsumsi protein, konsumsi energi, efisiensi protein, dan efisiensi energi. Data yang diperoleh selanjutnya dianalisis statistik Rancangan Acak Lengkap Pola Searah, berbasis nilai P kurang dari 5%. Setiap data dengan perbedaan yang nyata diuji lanjut menggunakan Duncan's new multiple range test. Hasil analisis statistik menunjukkan bahwa penambahan 250 mg/L ekstrak daun asam jawa, 250 mg/L ekstrak daun meniran, dan 500 mg/L ekstrak daun meniran pada air minum tidak mempengaruhi konsumsi pakan, pertambahan bobot badan, konsumsi protein, konsumsi energi, efisiensi protein, dan efisiensi energi. Namun demikian, penambahan 500 mg/L ekstrak daun asam jawa pada air minum meningkatkan ($P < 0,05$) konsumsi pakan, konsumsi protein, dan konsumsi energi, tanpa mempengaruhi efisiensi protein dan energi ayam pedaging. Dapat disimpulkan bahwa penambahan ekstrak daun asam jawa pada air minum menyebabkan terjadinya peningkatan konsumsi nutrisi dan energi ayam pedaging strain New Lohmann MB-202.

Kata kunci: Ayam pedaging, Efisiensi energi, Efisiensi protein, Ekstrak daun asam jawa, Ekstrak daun meniran

PROTEIN AND ENERGY EFFICIENCIES OF BROILER CHICKENS GIVEN DRINKING WATER SUPPLEMENTED WITH TAMARIND AND MENIRAN LEAVES EXTRACTS

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ABSTRACT

This study was aimed to determine the effect of *Tamarindus indica* L. and *Phyllanthus niruri* L. leaves extract supplementation through drinking water on protein and energy efficiency ratios in broiler chickens. The study was conducted using 100 *unsexed* day old New Lohmann MB-202 chicks that were reared for 35 days. Each chicken in this study received a same basal diet with one of the following treatments: drinking water without any addition (L0; control), drinking water + 250 mg/L *Tamarindus indica* L. leave extract (L1), drinking water + 500 mg/L *Tamarindus indica* L. leave extract (L2), drinking water + 250 mg/L *Phyllanthus niruri* L. leave extract (L3), or drinking water + 500 mg/L *Phyllanthus niruri* L. leave extract (L4). All chickens were divided into 5 treatments, 4 replications, and 5 chickens in each replicate pen. The variable data observed included feed consumption, body weight gain, protein consumption, energy consumption, protein efficiency ratio, and energy efficiency ratio. The obtained data were analyzed statistically using Completely Randomized Design with oneway arrangement based on the value of $P < 0.05$. Data with significant different were further analysed using Duncan's new multiple range test. Result showed that supplementation of 250 mg/L *Tamarindus indica* L. leave extract and supplementation of *Phyllanthus niruri* L. leave extract via drinking water did not affect feed consumption, body weight gain, protein consumption, energy consumption, protein efficiency ratio, and energy efficiency ratio. However, supplementation of 500 mg/L *Tamarindus indica* L. leave extract increased ($P < 0.05$) feed intake, protein intake, and energy intake without any effect on protein and energy efficiency ratios. It can be concluded that supplementing drinking water with low dose *Tamarindus indica* L. increased nutrient and energy consumption in New Lohmann MB-202 broiler chickens.

Keyword: Broiler chickens, Energy efficiency ratio, Meniran leaves extract, Protein efficiency ratio, Tamarind leaves extract