

## **PENGARUH SUPLEMENTASI EKSTRAK DAUN JERUK NIPIS (*Citrus aurantifolia*) DALAM AIR MINUM TERHADAP KINERJA PERTUMBUHAN AYAM BROILER**

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### **INTISARI**

Penelitian ini bertujuan untuk mengetahui pengaruh suplementasi ekstrak daun jeruk nipis (*Citrus aurantiifolia*) dalam air minum (EDJ) terhadap kinerja pertumbuhan ayam broiler yang dipelihara selama 35 hari yang mendapatkan pakan tanpa antibiotik. Penelitian ini menggunakan rancangan acak lengkap pola searah. Sejumlah 128 ekor anak ayam sex jantan Strain New Lohmann MB 202 Platinum umur satu hari dikelompokkan dalam 4 perlakuan, 4 replikasi, 8 ekor setiap replikasi. Setiap ayam mendapatkan pakan basal dan salah satu dari perlakuan air minum: air minum tanpa penambahan aditif (P0; kontrol negatif), air minum + 50 ppm Tetracycline (P1; kontrol positif), air minum + 15 mL/L EDJ (P2), atau air minum + 30 mL/L EDJ (P3). Pakan basal yang diberikan berbasis jagung kuning dan bungkil kedelai dengan kandungan protein kasar 22,01% dan energi termetabolis 3113,12 kcal/kg. Variabel yang diamati dalam penelitian ini adalah *Feed Intake*, *Water Intake*, *Total Body Weight Gain*, *Feed Conversion Ratio*, dan Indeks Performa. Data yang diperoleh diolah menggunakan analisis varian (ANOVA). Setiap data dengan perbedaan yang nyata diuji lanjut menggunakan uji Duncan's new Multiple Range Test. Hasil penelitian menunjukkan bahwa penambahan air minum dengan 50 ppm Tetrasiklin (P1) meningkatkan pertambahan bobot badan ( $P < 0,001$ ) ayam broiler umur 35 hari. Namun demikian, penambahan air minum dengan 15 mL/L EDJ (P2) memberikan *Total Body Weight Gain* yang lebih tinggi ( $P < 0,001$ ) dan penurunan nilai *Feed Conversion Ratio* ( $P < 0,05$ ) jika dibandingkan dengan kelompok kontrol negatif (P0) maupun kelompok kontrol positif (P1). Penambahan air minum dengan 15-30 mL/L EDJ (P2 dan P3) tidak mempengaruhi *Feed Intake* maupun *Water Intake*. Terdapat indikasi bahwa penambahan air minum dengan ekstrak daun jeruk nipis meningkatkan kinerja pertumbuhan ayam broiler, bahkan lebih baik daripada penambahan air minum dengan dosis standar antibiotik Tetracycline.

Kata Kunci: Ayam broiler, Ekstrak daun jeruk nipis, Fitobiotik, Kinerja pertumbuhan, Suplementasi air minum

## **THE EFFECTS OF SUPPLEMENTATIONS LIME (*Citrus aurantifolia*) LEAF EXTRACT IN DRINKING WATER ON THE GROWTH PERFORMANCE OF BROILER CHICKENS**

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### **ABSTRACT**

The purpose of this study was to determine the effects of lime (*Citrus aurantiifolia*) leaf extract supplementation in drinking water (EDJ) on the growth performance of broiler chickens reared for 35 days on feed without antibiotics. This study used a completely randomized design. A total number of 128 male chicks of one day old strain New Lohman MB 202 Platinum were grouped into 4 treatments, 4 replications, 8 bird per replication. Bird in current study was given a basal diet with one of four following treatments: water without aditif (P0; negative control), water + 50 ppm Tetracycline (P1; positive control), water + 15 mL/L EDJ (P2), or water + 30 mL/L EDJ (P3). The basal diet was composed based on yellow corn and soybean meal which contained 22.01% crude protein and 3113.12 kcal/kg metabolisable energy. Variable data observed in this study were Feed Intake, Water Intake, Total Body Weight Gain, Feed Conversion Ratio, and Performance Index. The collected data were analysed statistically by variance (ANOVA). Significant differences were further tested using Duncan's new Multiple Range Test. Result showed that addition of Tetracycline increased body weight gain ( $P < 0.001$ ) of 35-day-old chickens. However, the addition of drinking water with 15 mL/L EDJ gave higher body weight gain ( $P < 0.001$ ) and decreased FCR ( $P < 0.05$ ) when compared to that of negative control group (P0) and the positive control group (P1). The addition of drinking water with 15-30 mL/L EDJ did not affect feed and drinking water consumption. There were indications that addition of drinking water with lime leaf extract improved growth performance of broiler chickens, even better than the addition of drinking water with standard doses of Tetracycline.

Key words: Broiler chickens, *Citrus aurantiifolia* leaf extract, Drinking water supplementation, Growth performance