

**PENGARUH PEMBERIAN EKSTRAK MINYAK ATSIRI SERAI
(*Cymbopogon citratus*) DALAM AIR MINUM TERHADAP
EFISIENSI ENERGI DAN PROTEIN
PAKAN AYAM BROILER**

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INTISARI

Penelitian ini bertujuan untuk mengetahui pengaruh pemberian fitobiotik dari ekstrak minyak atsiri serai yang disuplementasikan dalam air minum terhadap efisiensi energi dan protein pakan ayam broiler jantan yang dipelihara pada umur 8 hari sampai 35 hari. Penelitian menggunakan 180 ekor ayam broiler strain *New Lohmann* (MB 202 Platinum). Terdapat 5 perlakuan yaitu pemberian air minum tanpa penambahan apapun (T1), penambahan antibiotik Tetracycline 25 mg/l air minum (T2), penambahan ekstrak minyak atsiri serai 25 µl/l air minum (T3), penambahan ekstrak minyak atsiri serai 50 µl/l air minum (T4), dan penambahan dengan ekstrak minyak atsiri serai 100 µl/l air minum (T5). Rancangan percobaan yang digunakan adalah Rancangan Acak Lengkap Pola Searah dengan 4 kali pengulangan, setiap ulangan berisi 9 ekor ayam broiler. Parameter yang diamati berupa konsumsi energi, konsumsi protein, efisiensi energi, dan efisiensi protein. Data yang berbeda secara statistik diantara perlakuan akan dilakukan uji lanjut menggunakan *Duncan's new Multiple Range Test*. Hasil analisis statistik menunjukkan bahwa penambahan minyak atsiri serai pada dosis 100 µl/l dalam air minum dapat menurunkan konsumsi energi dan konsumsi protein, serta meningkatkan efisiensi energi dan efisiensi protein ($P < 0,05$), sedangkan penambahan minyak atsiri serai 25 µl/l dan 50 µl/l air minum tidak mempengaruhi konsumsi energi, konsumsi protein, efisiensi energi dan efisiensi protein.

Kata kunci: Ayam broiler, Efisiensi energi, Efisiensi protein, Minyak atsiri, Serai.

**EFFECT OF LEMONGRASS (*Cymbopogon citratus*)
ESSENTIAL OIL IN DRINKING WATER AGAINST
ENERGY AND PROTEIN EFFICIENCY ON
FEED BROILER CHICKEN**

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ABSTRACT

This study aims to determine the effect of phytobiotic administration of lemongrass essential oil supplemented in drinking water on energy efficiency and protein feed of broilers that were maintained at the age of 8 days to 35 days. The study used 180 New Lohmann strain broiler chickens (MB 202 Platinum). There were 5 treatments, drinking water without any additions (T1), tetracycline antibiotics 25 mg/l drinking water (T2), lemongrass essential oil 25 µl/l drinking water (T3), lemongrass essential oil 50 µl/l drinking water (T4), and lemongrass essential oil 100 µl/l drinking water (T5). The experimental design used was a Completely Randomized Design with 4 replication, each replication containing 9 broilers. The parameters observed were energy consumption, protein consumption, energy efficiency, and protein efficiency. Statistically different data between treatments will be tested further using Duncan's new Multiple Range Test. The results of statical analysis showed that the addition of lemongrass essential oil 100 µl/l in drinking water reduced energy consumption and protein consumption, and increased energy efficiency and protein efficiency ($P>0,05$), while the addition of 25 µl/l and 50 µl/l of drinking water did not affect energy consumption, protein consumption, energy efficiency, and protein efficiency.

Keywords: Broiler chickens, Energy efficiency, Protein efficiency, Lemongrass, Essential oil.