

STUDI DEPOSISI LEMAK, KANDUNGAN KOLESTEROL DAN
TRIGLISERIDA PLASMA DARAH AYAM CALON PETELUR
UMOR 6-14 MINGGU YANG DIBERI PAKAN DENGAN
CAMPURAN MINYAK GORENG BEKAS

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INTISARI

Penelitian ini bertujuan untuk mengetahui gambaran deposisi lemak, kandungan kolesterol, dan trigliserida plasma darah ayam calon petelur fase grower (6-14 minggu) yang diberi pakan dengan campuran minyak goreng bekas. Sebanyak 288 ekor ayam calon petelur strain Lohmarm umur 6 minggu dibagi secara acak menjadi 6 kelompok perlakuan, tiap perlakuan terdiri dari 3 ulangan dan tiap ulangan terdiri atas 16 ekor ayam. Kelompok perlakuan berturut-turut adalah kelompok ayam yang diberi pakan dengan penambahan minyak goreng bekas 0, 1, 2, 3, 4, dan 5% dengan kandungan protein 16% dan kandungan energi 2900 kcal ME/kg yang diberikan secara *ad libitum*. Data yang diambil meliputi berat hati, berat empedu, berat lemak abdominal, kolesterol dan trigliserida plasma darah. Hasil yang diperoleh untuk berat lemak abdominal adalah 16,67; 15,43; 21,12; 16,49; 13,46 dan 10,38g, berat hati adalah 24,64, 24,51; 22,58; 22,37; 25,11; dan 22,99g, berat empedu 1,07; 1,03; 1,13; 1,23; 1,02 dan 1,32g, kadar kolesterol plasma darah 76,191; 106,14; 121,43; 107,14; 111,91 dan 111,90 mg/dl dan kadar trigliserida plasma darah 117,65; 113,85; 176,47; 121,56; 145,10 dan 121,57 mg/dl untuk perlakuan pakan R0, R1, R2, R3, R4 dan R5 secara berturut-turut. Hasil analisis menunjukkan bahwa pemberian berbagai tingkatan minyak goreng bekas dalam pakan berpengaruh nyata terhadap kolesterol plasma darah ayam ($P > 0,05$), namun berpengaruh tidak nyata terhadap berat hati, berat empedu, lemak abdominal, persentase lemak hati dan trigliserida plasma darah ayam.

Kata kunci: ayam petelur fase grower, minyak goreng bekas, deposisi lemak, kolesterol, trigliserida.

**Study of Fat Deposition, Cholesterol and Triglyceride
Blood Plasma of Layer Chicken in 6-14 Weeks of Age
Which Fed With Supplementation of Used Cooking Oil**

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ABSTRACT

Experiments were conducted to determine the effects of dietary used cooking oil on fat deposition, cholesterol content and triglyceride blood plasma of layer chicken in growing phase. Two hundred and eighty eight 6 weeks of age layer Lohmann strain were placed randomly into six treatments with three replications of 16 birds each. The experimental diets consisted of 0, 1, 2, 3, 4, and 5% used cooking oil added to rations containing 16% protein and 2900 kcal ME/kg energy which were fed *ad libitum*. Liver weight, bile weight, abdominal fat weight, cholesterol and triglyceride blood plasma were measured. ANOVA One Way Completely Randomized Design showed that abdominal fat weight were 16.67, 15.43, 21.12, 16.49, 13.46, and 10.38g, liver weight were 24.64, 24.51, 22.58, 22.37, 25.11, and 22.99g, bile weight were 1.07, 1.03, 1.13, 1.23, 1.02, and 1.32g, cholesterol blood plasma were 76.191, 106.14, 121.43, 107.14, 111.91, and 111.90 mg/dl and triglyceride blood plasma were 117.65, 113.85, 176.47, 121.56, 145.10, and 121.57 mg/dl for diets R0, R1, R2, R3, R4, and R5 respectively. The result showed that cholesterol blood plasma of the bird was affected significantly ($P > 0.05$) by used cooking oil in feed. In the contrary, there was no effect of used cooking oil in diets on liver weight, bile weight, liver fat, abdominal fat weight, and triglyceride blood plasma of layer chicken in growing phase.

Key word: Layer chicken grower phase, used cooking oil, fat deposition, cholesterol, triglyceride