

PENGARUH PENGGUNAAN SPIRULINA (*Spirulina platensis*) DALAM PAKAN TERHADAP PERLEMAKAN DAN KADAR KOLESTEROL DAGING AYAM BROILER

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INTISARI

Penelitian ini bertujuan untuk mengetahui pengaruh penggunaan spirulina (*Spirulina platensis*) dalam ransum terhadap perlemakan dan kadar kolesterol daging ayam broiler. Tujuh puluh lima ekor ayam broiler unsex digunakan dalam penelitian ini selama enam minggu. Ayam broiler dibagi secara acak menjadi lima perlakuan, masing-masing perlakuan diulang tiga kali dan setiap ulangan terdiri atas lima ekor ayam. Perlakuan tersebut adalah R1: ransum tanpa spirulina, R2: ransum menggunakan spirulina 0,5%, R3: ransum menggunakan spirulina 1%, R4: ransum menggunakan spirulina 1,5% dan R5: ransum menggunakan spirulina 2%. Parameter yang diamati meliputi konsumsi pakan, pertambahan bobot badan, konversi pakan, persentase karkas, persentase lemak daging, persentase lemak abdominal, kadar kolesterol serum, kadar *low density lipoprotein* (LDL), kadar *high density lipoprotein* (HDL), kadar trigliserida dan kadar kolesterol daging. Data dianalisis menggunakan rancangan acak lengkap pola searah dan bila terdapat perbedaan rata-rata dilanjutkan dengan uji wilayah berganda dari Duncan. Hasil analisis menunjukkan, penggunaan spirulina mulai level 0,5% dalam ransum sudah menunjukkan penurunan kadar *low density lipoprotein* (LDL) darah, penurunan kadar kolesterol daging serta peningkatan kadar *high density lipoprotein* (HDL) darah ($P < 0,05$), sedangkan pada level 1% menunjukkan peningkatan pertambahan bobot badan, penurunan konversi pakan, penurunan persentase lemak daging, penurunan persentase lemak abdominal, penurunan kadar kolesterol darah dan penurunan kadar trigliserida darah ($P < 0,05$). Penggunaan spirulina dalam ransum tidak mempengaruhi konsumsi pakan dan persentase karkas.

Kata Kunci: Spirulina, Perlemakan, Kolesterol, Ayam Broiler

THE EFFECT OF USING SPIRULINA (*Spirulina platensis*) IN RATIONS ON FAT DEPOSIT AND MEAT CHOLESTEROL CONTENTS OF BROILER

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ABSTRACT

The purpose of the study was to evaluate the influence of spirulina (*Spirulina platensis*) in rations on the performance of broiler. Seventy five, day old chicks were used in this experiment and they were randomly and equally divided into five treatments. Each treatment had replicated three with five broilers per replication and were arranged in completely randomized design and continued with Duncan's New Multiple Range Test. The rations consisted of varying concentration of spirulina. R1 ration was designed containing 0% spirulina, R2: 0.5% spirulina, R3: 1.0% spirulina, R4: 1.5% spirulina and R5: 2.0% spirulina. Ration and drinking water were given *ad-libitum*. The variables observed in this research were feed consumption, average daily gain, feed conversion, percentage of carcass, percentage of meat fat, percentage of abdominal fat, level of cholesterol serum, level of *low density lipoprotein* (LDL) serum, level of *high density lipoprotein* (HDL) serum, level of tryglyceride serum and level of meat cholesterol. The results of the experiment showed that the use of spirulina in ration up to 0.5% decreased level of *low density lipoprotein* (LDL) serum and level of meat cholesterol but increased level of *high density lipoprotein* (HDL) serum ($P<0,05$). The use of spirulina up to 1.0% increased average daily gain and decreased feed conversion, percentage of meat fat, percentage of abdominal fat, level of cholesterol serum, and level of tryglyceride seru,m ($P<0.05$) but did not influence the feed consumption and percentage of carcass.

Key Words: Spirulina, Fat Deposit, Cholesterol, Broiler