

PENGARUH PENGGUNAN MINYAK IKAN LEMURU (*Sardinella longiceps*) DALAM RANSUM BROILER TERHADAP PERFORMAN, KADAR LEMAK DAN PROFIL ASAM LEMAK OMEGA-3 DAGING

Wiyono
96/107560/PT03313
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Intisari

Penelitian ini dilakukan untuk menentukan pengaruh penggunaan minyak ikan lemuru pada ransum broiler jantan terhadap performan, kadar lemak dan profil n-3 PUFA (*Polyunsaturated fatty acids*). Enampuluh empat ayam broiler jantan umur 2 minggu dikelompokkan dalam empat perlakuan pakan dengan 4 ulangan tiap perlakuan dan tiap ulangan berjumlah 4 ekor. Ransum yang diberikan adalah iso-energi (ME = 2950 k cal/ kg) dan iso-nitrogen (CP = 21 %) dengan kadar minyak ikan lemuru 0, 3, 6 dan 9 % berturut-turut untuk perlakuan L0, L3, L6 dan L9. Setelah empat minggu pemeliharaan dihitung konsumsi pakan (FC), pertambahan berat badan harian (ADG) dan konversi pakan (FCR). Hasil penelitian ini menunjukkan bahwa penggunaan minyak ikan lemuru sampai dengan 9% dalam ransum yang iso-energi dan iso-nitrogen menghasilkan performan yang sama pada ayam broiler. Daging dada kanan dan paha kiri dikomposit dan dianalisis kadar lemak, kadar kolesterol dan komposisi asam lemak. Kadar lemak kasar atau ekstrak ether (EE) daging berbeda nyata dan L3 yang paling tinggi. Kadar EE L6 dan L9 lebih rendah dibandingkan L0 (tanpa minyak ikan lemuru). Hasil ini menunjukkan bahwa minyak ikan lemuru 6 atau 9% dapat menurunkan kadar lemak daging. Kadar kolesterol daging pada perlakuan minyak ikan lemuru tidak berbeda nyata dibandingkan dengan tanpa minyak ikan lemuru. Penggunaan minyak ikan lemuru pada penelitian ini tidak efektif dalam menurunkan kadar kolesterol daging. Asam lemak omega-3 rantai panjang tidak jenuh (n-3 PUFA) pada perlakuan lebih tinggi dibanding kontrol. Daging ayam broiler dapat diperkaya dengan n-3 PUFA dari ransum.

Kata kunci: Minyak ikan lemuru, ayam broiler jantan, performan, lemak daging, kolesterol, n-3 PUFA

EFFECTS OF THE USE OF THE SARDINE FISH OIL (*Sardinella longiceps*) IN THE BROILER'S RATION ON PERFORMANCE, FAT CONTENT AND OMEGA-3 FATTY ACID PROFILES OF THE MEAT

**Wiyono
96/107560/PT/03313
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Abstract

This experiment was conducted to determine the effects of the use of the sardine fish oil in the broiler's ration on performance, fat content and n-3 PUFA (*polyunsaturated fatty acids*) profiles of the meat. Sixty fours 2-week-old male broilers were distributed to four feed treatments with 4 replications in each treatment. The broilers were fed iso-energy (*Metabolizable energy* = ME = 2950 kcal / kg) and iso-nitrogenous (*Crude protein* = CP = 21 %) rations with sardine oil content 0%, 3%, 6%, and 9 % for L0, L3, L6 and L9, respectively. After four weeks feed consumption (FC), average daily gain (ADG) and feed conversion (FCR) were calculated. No significant differences ($P > .05$) among the treatments for FC, ADG, and FCR. This fact showed that the use of the sardine oil up to 9 % in iso-nitrogenous and iso-energy produced same performance of the experimental broilers. Right breast and left thigh meat were composited and analysed for fat content, cholesterol content and fatty acid composition. Crude fat or extract ether (EE) has significant differences and L3 is the highest. L6 and L9 were lower than the L0 (control) in EE content. This result showed that sardine oil 6 or 9 % could reduce EE content of the broiler meat. Cholesterol contents of the meat of broiler receiving the sardine oil treatments have no significant differences compared with those untreated groups. The use of sardine oil in this experiment was not effective to reduce cholesterol content. The n-3 PUFA of the meat of broiler receiving the sardine oil treatments were higher than those untreated groups. Broiler's meat could be enriched with n-3 PUFA from the ration.

Key words: Sardine fish oil , male broiler, performance, meat fat, cholesterol, n-3 PUFA