

PENGARUH PENGGUNAAN PAKAN RENDAH PROTEIN DENGAN TAMBAHAN PREMIX HERBAL TERHADAP KUALITAS FISIK, KIMIA, DAN WARNA DAGING AYAM BROILER

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INTISARI

Penggunaan pakan rendah protein dapat menurunkan kualitas produk ayam, terutama kualitas daging, sehingga penambahan premix herbal diperlukan untuk menutupi kekurangan tersebut. Penelitian ini bertujuan untuk mengetahui pengaruh penggunaan pakan rendah protein dengan tambahan premix herbal terhadap kualitas fisik, kimia, dan warna daging ayam broiler. Sebanyak 1000 ekor ayam broiler *strain* Wonchick dipelihara selama 35 hari dalam kandang *open house* dan dibagi secara acak ke dalam dua perlakuan, yaitu pakan komersial (kontrol) dengan kadar protein kasar sebesar dan pakan rendah protein + premix herbal (RP+PH). Perbedaan kadar protein kasar antara kedua perlakuan tercatat sebesar 2,41% pada fase *starter* dan sebesar 4,23% pada fase *finisher*. Setiap perlakuan terdiri dari lima ulangan (replikasi), sehingga masing-masing ulangan terdapat jumlah ayam sebanyak 100 ekor. Perlakuan RP+PH dimulai dari hari ke-14 hingga ke-35. Sebanyak 2 sampel daging ayam bagian dada dari masing-masing replikasi digunakan untuk pengujian kualitas fisik, kimia, dan warna daging. Data dianalisis menggunakan aplikasi SPSS dengan metode *Independent sample T-test*. Hasil penelitian menunjukkan bahwa perlakuan RP+PH tidak menunjukkan perbedaan yang nyata ($P > 0,05$) terhadap kualitas fisik daging (daya ikat air, susut masak, dan keempukkan), kimia daging (kadar bahan kering, kadar abu, protein kasar, dan kadar kolesterol), warna daging (nilai L (*lightness*) dan a^* (*redness*)) dibandingkan dengan kontrol. Namun demikian, perlakuan RP+PH memberikan pengaruh yang nyata terhadap kadar lemak kasar dan nilai b^* (*yellowness*) daging ayam broiler ($P < 0,05$). Terjadi kenaikan kadar lemak kasar sebesar 28,86% pada perlakuan RP+PH (1,76% vs. 2,18%). Perlakuan RP+PH juga meningkatkan nilai *yellowness* sebesar 36,04% (10,35% vs. 14,08%). Berdasarkan penelitian, dapat disimpulkan bahwa penggunaan pakan rendah protein dengan tambahan premix herbal menghasilkan daging dengan kualitas fisik yang setara dibandingkan dengan pakan komersial. Namun demikian, terjadi penurunan kualitas kimia dan warna daging yang ditandai dengan peningkatan kadar lemak kasar daging dan peningkatan nilai *yellowness* daging.

Kata kunci: Ayam broiler, Kualitas daging, Pakan rendah protein, Premix herbal

EFFECT OF LOW-PROTEIN FEED SUPPLEMENTED WITH HERBAL PREMIX ON THE PHYSICAL, CHEMICAL, AND COLOR QUALITY OF BROILER CHICKEN MEAT

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ABSTRACT

The use of low-protein feed may reduce the quality of poultry products, particularly meat quality; therefore, the addition of herbal premix is required to compensate for this deficiency. This study aimed to evaluate the effect of low-protein feed supplemented with herbal premix on the physical, chemical, and color quality of broiler breast meat. A total of 1000 broiler chickens (Wonchick strain) were reared for 35 days in an open-house system and randomly assigned to two dietary treatments: commercial feed (control) and low-protein feed supplemented with herbal premix (RP+PH). The difference in crude protein content between the two treatments was 2.41% in the starter phase and 4.23% in the finisher phase. Each treatment consisted of five replications with 100 broilers per replicate. The RP+PH treatment was applied from day 14 to day 35. Two breast meat samples from each replicate were used for the analysis of physical, chemical, and color quality of the meat. Data were analyzed using SPSS software with the Independent Sample T-test method. The results showed that RP+PH treatment had no significant effect ($P>0.05$) on meat physical traits (water-holding capacity, cooking loss, and tenderness), chemical composition (dry matter, ash, crude protein, and cholesterol), and color parameters (L^* and a^*) compared to the control. However, RP+PH significantly ($P<0.05$) affected crude fat content and the b^* (yellowness) value of broiler meat. Crude fat content increased by 28.86% in the RP+PH group (1.76% vs. 2.18%), while yellowness increased by 36.04% (10.35 vs. 14.08). In conclusion, the use of low-protein feed with herbal premix supplementation resulted in similar physical quality compared to commercial feed, but reduced the chemical and color quality of broiler breast meat as indicated by higher crude fat content and increased yellowness.

Keywords: Broiler chicken, Herbal premix, Low-protein feed, Meat quality