



## PENGARUH SUBSTITUSI DAGING AYAM DENGAN HATI AYAM TERHADAP KUALITAS KIMIA DAN SENSORIS SOSIS AYAM

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### INTISARI

Penelitian ini bertujuan untuk mengetahui pengaruh kualitas kimia dan sensoris sosis ayam yang disubstitusi dengan hati ayam. Bahan yang digunakan pada penelitian yaitu daging ayam, hati ayam, STPP, garam, es batu, tepung tapioka, susu skim, bawang putih, lada putih, dan ketumbar. Variabel yang diamati adalah kualitas kimia (protein, kadar air, lemak, dan kadar abu) dan kualitas sensoris (warna, aroma, rasa, tekstur, dan daya terima). Penelitian ini menggunakan *completely randomized design* (CRD) pola searah dengan 4 perbandingan substitusi daging ayam dengan hati ayam yaitu 100%:0% (P0), 75%:25% (P1), 50%:50% (P2), dan 25%:75% (P3) dengan 5 kali pengulangan. Penelitian dilakukan di Laboratorium Ilmu dan Teknologi Daging Departemen Teknologi Hasil Ternak dan Laboratorium Biokimia Nutrisi Departemen Nutrisi dan Makanan Ternak Fakultas Peternakan Universitas Gadjah Mada. Data pengujian kualitas kimia dianalisis dengan analisis variansi (ANOVA) pola searah. Apabila terdapat perbedaan tiap perlakuan dilanjutkan dengan uji *Duncan's Multiple Range Test* (DMRT). Data hasil pengujian sensoris dianalisis dengan menggunakan Kruskal Wallis. Hasil penelitian menunjukkan bahwa substitusi hati ayam pada sosis berpengaruh nyata ( $P<0,01$ ) terhadap kadar protein dan lemak. Kadar protein sosis mengalami penurunan pada substitusi 75% hati ayam, sedangkan kadar lemak mengalami kenaikan seiring dengan penambahan level substitusi hati ayam. Substitusi hati ayam pada sosis berpengaruh nyata ( $P<0,05$ ) terhadap warna dan tekstur. Sosis dengan substitusi hati ayam sebesar 25%, 50%, dan 75% memiliki skor warna dan tekstur yang lebih tinggi daripada sosis substitusi hati ayam sebesar 0%, tetapi sosis dengan substitusi hati ayam 25%, 50%, dan 75% memiliki skor warna dan tekstur yang tidak berbeda nyata. Kesimpulan dari penelitian ini adalah sosis dengan substitusi 50% hati ayam memberikan kualitas kimia dan sensoris yang terbaik dibandingkan perlakuan lainnya.

(Kata kunci: Sosis ayam, Daging ayam, Hati ayam, Kualitas kimia, Kualitas sensoris)



## THE EFFECTS OF CHICKEN MEAT SUBSTITUTION WITH CHICKEN LIVER ON CHEMICAL AND SENSORY QUALITY OF CHICKEN SAUSAGE

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### ABSTRACT

This research aims to determine the effects of chemical and sensory qualities of chicken sausages substituted with chicken liver. The ingredients used in this research were chicken meat, chicken liver, sodium tripolyphosphate (STPP), salt, ice, tapioca flour, skim milk, garlic, white pepper, and coriander. The observed variables were chemical quality (protein, moisture, fat, and ash) and sensory quality (colour, scent, taste, texture, and acceptability). The research employed a completely randomized design (CRD) with a one-way pattern and four levels of chicken meat substitution with chicken liver: 100%:0% (P0), 75%:25% (P1), 50%:50% (P2), and 25%:75% (P3), with five replications. The study was conducted at the Meat Science and Technology Laboratory, Department of Animal Products Technology, and the Nutritional Biochemistry Laboratory, Department of Nutrition and Animal Feed, Faculty of Animal Science, Universitas Gadjah Mada. The data on chemical quality were analyzed using one-way analysis of variance (ANOVA). If significant differences were found between treatments, Duncan's Multiple Range Test (DMRT) was performed for further comparison. The data on sensory evaluation were analyzed using the Kruskal-Wallis test. The results indicated that substituting chicken liver in the sausages significantly affected ( $P<0.01$ ) the protein and fat content. The protein content decreased with a 75% chicken liver substitution, whereas the fat content increased with higher levels of chicken liver substitution. Chicken liver substitution in sausages had a significant effect ( $P<0.05$ ) on colour and texture. Sausages with 25%, 50%, and 75% chicken liver substitution scored higher in colour and texture than sausages with 0% chicken liver substitution. However, the scores for colour and texture among sausages with 25%, 50%, and 75% chicken liver substitution were not significantly different. This research concludes that sausages with a 50% chicken liver substitution provide the best chemical and sensory quality compared to other treatments.

(Keywords: Chicken sausage, Chicken meat, Chicken liver, Chemical quality, Sensory quality)