

PENGARUH SUBSTITUSI *FILLER* TEPUNG BEKATUL TERHADAP KOMPOSISI KIMIA DAN KUALITAS SENSORIS SOSIS DAGING KAMBING

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INTISARI

Penelitian ini bertujuan untuk mengetahui pengaruh substitusi tepung tapioka dengan tepung bekatul terhadap komposisi kimia, dan kualitas sensoris sosis dengan bahan dasar daging kambing. Bahan yang digunakan dalam penelitian ini adalah daging kambing, tepung bekatul, tepung tapioka, bawang putih, garam, susu skim bubuk, STPP, lada, ketumbar, dan selongsong kolagen. Parameter yang digunakan dalam uji komposisi kimia adalah kadar air, kadar lemak, kadar protein, kadar serat pangan, estimasi indeks glikemik, kadar abu dan kadar karbohidrat, sedangkan parameter yang digunakan pada uji kualitas sensoris adalah warna, aroma, tekstur, rasa, dan daya terima. Data yang diperoleh dianalisis dengan *One Way Anova* dengan uji lanjut *Duncan's New Multiple Range Test* (DMRT) pada kualitas kimia, sedangkan pada sensoris menggunakan analisis *Kruskal-Wallis* dengan uji lanjut *Mann-Whitney* dengan faktor banyaknya jumlah tepung bekatul yang terdiri atas lima rasio perlakuan, dengan perbandingan tepung tapioka dan tepung bekatul, yaitu (P_0) = 100%:0% ; (P_1) = 75%:25% ; (P_2) = 50%:50% ; dan (P_3) = 25%:75% ; (P_4) = 0%:100%. Substitusi tepung bekatul terhadap komposisi kimia berpengaruh signifikan ($P < 0,05$) pada kadar lemak, kadar serat, kadar protein, kadar karbohidrat, kadar estimasi indeks glikemik. Didapatkan hasil terbaik dan meningkat signifikan pada P_4 sesuai dengan rasio substitusi tepung bekatul pada kadar lemak (P_0 :2,56% dan P_4 :5,42%, kadar serat (P_0 :3,66% dan P_4 :8,89%) dan kadar protein (P_0 :18,14% dan P_4 :22,65%), serta hasil menurun signifikan kadar karbohidrat (P_0 :28,84% dan P_4 :14,9%) dan kadar estimasi indeks glikemik (P_0 :70,51% dan P_4 :33,35%). Substitusi tepung bekatul terhadap kualitas sensoris berpengaruh signifikan ($P < 0,05$) pada tekstur, rasa, dan daya terima. Didapatkan hasil terbaik terhadap uji kualitas sensoris pada P_2 yaitu tekstur 3,81, rasa 3,65, dan daya terima 3,61. Kesimpulan dari penelitian yang telah dilakukan adalah sosis daging kambing dengan substitusi tepung bekatul terhadap komposisi kimia dan kualitas sensoris mendapatkan hasil terbaik pada perlakuan P_4 (0%:100%) dapat meningkatkan kadar serat dan protein, menurunkan kadar karbohidrat dan estimasi indeks glikemik, serta meningkatkan tekstur, rasa, dan daya terima sosis daging kambing.

Kata kunci: Sosis, Daging Kambing, Tepung Bekatul, Tepung Tapioka, Komposisi Kimia, Kualitas Sensoris.

THE EFFECT OF RICE BRAN AS A SUBSTITUTION OF TAPIOCA FLOUR ON CHEMICAL COMPOSITION AND SENSORY QUALITY OF GOAT SAUSAGE

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ABSTRACT

This study aims to determine the effect of substitution of tapioca flour with rice bran flour on the chemical composition and sensory quality of goat sausages. The ingredients used in this study were goat meat, rice bran, tapioca flour, garlic, salt, skimmed milk, STPP, pepper, coriander, iced water, and collagen casings. The variables observed were chemical composition (moisture content, protein content, fat content, ash content, dietary fiber content, carbohydrate content, and glycemic index estimation), and sensory quality (color, aroma, texture, taste, and acceptability). The research was conducted using One Way Anova analysis with Duncan's New Multiple Range Test (DMRT) on chemical quality, whereas sensory analysis using Kruskal-Wallis analysis with Mann-Whitney test with a factor of the amount of rice bran flour composed of five treatment ratios, with the ratio of tapioca flour and rice bran flour were, (P_0) = 100%:0% ; (P_1) = 75%:25% ; (P_2) = 50%:50% ; and (P_3) = 25%:75% ; (P_4) = 0%:100%. The substitution of rice bran flour gave a significant effect on the chemical composition ($P < 0,05$) on fat, dietary fiber, protein, carbohydrate contents, and glycemic index estimation. The best results were obtained and significantly increased at P_4 following the addition of rice bran flour on fat (P_0 :2.56% and P_4 :5.42%, dietary fiber (P_0 :3.66% and P_4 :8.89%) and protein (P_0 :18.14% and P_4 :22.65%), and the results significantly decreased carbohydrate (P_0 :28.84% and P_4 :14.9%) and glycemic index estimation (P_0 :70.51% and P_4 : 33.35%). Substitution of rice bran flour on sensory quality had a significant effect ($P < 0,05$) on texture, taste, and acceptability. The best results were obtained on the sensory quality test at P_2 on texture 3.81, taste 3.65, and acceptability 3.61. The conclusion of the experiment was that chemical composition and sensory quality of goat sausage substitution with rice bran delivered the best results in P_4 treatment (0%:100%) able increase fiber and protein contents levels, lowering carbohydrate content and glycemic index estimation, whilst improving the texture, taste, and acceptability of goat sausages.

Keywords: Sausage, Goat, Rice bran flour, Tapioca flour, Chemical composition, Sensory quality