

PENGARUH SUBSTITUSI *FILLER* TEPUNG TAPIOKA DENGAN TEPUNG BEKATUL TERHADAP KUALITAS FISIK DAN MIKROSTRUKTUR SOSIS DAGING KAMBING

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INTISARI

Produk sosis merupakan salah satu produk olahan daging yang diminati masyarakat di Indonesia. Tepung tapioka sebagai *filler* sosis memiliki kandungan indeks glikemik tinggi, sehingga diperlukan pengganti *filler* sosis yang lebih sehat dan bergizi tinggi seperti tepung bekatul. Penelitian ini bertujuan untuk mengetahui pengaruh substitusi tepung tapioka dengan tepung bekatul terhadap kualitas fisik dan mikrostruktur sosis daging kambing. Tepung bekatul dipilih karena mengandung protein dan serat yang tinggi serta rendah glikemik indeks. Perbandingan tepung tapioka dan tepung bekatul yang digunakan yaitu P0 (100:0), P1 (75:25), P2 (50:50), P3 (25:75), dan P4 (0:100). Variabel uji yang diamati yaitu kualitas fisik (pH, daya ikat air, keempukan, dan warna) dan mikrostruktur sosis kambing. Penelitian ini dilakukan dengan analisis *One Way Anova* dengan uji lanjut *Duncan's Multiple Range Test* pada nilai pH, daya ikat air, keempukan, warna (L^* , a^* , b^*), sedangkan pada uji mikrostruktur menggunakan analisis deskriptif. Substitusi tepung bekatul terhadap tepung tapioka berpengaruh yang nyata ($P < 0,05$) pada daya ikat air dan keempukan. Hasil analisis daya ikat air secara berurutan 29,32%, 34,88%, 42,85%, 51,99%, dan 54,35% serta hasil nilai keempukan secara berurutan 7,22 mm/45g, 8,27 mm/45g, 10,09 mm/45g, 12,69 mm/45g, dan 14,71 mm/45g. Substitusi tepung bekatul memberikan pengaruh terhadap penampakan mikrostruktur yang seiring dengan penambahan bekatul mikrostruktur semakin rapat, kompak, dan seragam. Penelitian ini menunjukkan bahwa substitusi tepung tapioka dengan tepung bekatul pada perlakuan P4 (0:100) memiliki hasil terbaik pada uji kualitas fisik dan mikrostruktur.

Kata kunci: Sosis Daging Kambing, Tepung Bekatul, Kualitas Fisik, dan Mikrostruktur

THE EFFECT OF RICE BRAN FLOUR AS A SUBSTITUTION FILLER OF TAPIOCA FLOUR ON PHYSICAL QUALITIES AND MICROSTRUCTURE OF GOAT MEAT SAUSAGE

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ABSTRACT

Sausage product was one of the processed meat products were interested in Indonesia. Tapioca flour as a sausage filler has a high glycemic index content, a healthier and highly nutritious sausage filler substitute such as rice bran flour is needed. This study aims to determine the effect of substitution of tapioca flour with rice bran flour on physical qualities and microstructure of goat meat sausages. Rice bran flour was been chosen because it contains high protein, high fiber and low glycemic index. The ratio of tapioca flour and rice bran flour used was (P0) 100:0, (P1) 75:25, (P2) 50:50, P3 (25:75), and P4 (0:100). The variables observed were physical qualities (pH, water holding capacity, tenderness, and color) and microstructure of goat sausage. This research was conducted by One Way Anova analysis with Duncan's Multiple Range Test on pH values, water holding capacity, tenderness, color (L^* , a^* , and b^*), while on the microstructural test used descriptive analysis. Substitution of rice bran flour for tapioca flour had a significant effect ($P < 0,05$) on water holding capacity and tenderness. The results of water holding capacity respectively 29.32%, 34.88%, 42.85%, 51.99%, and 54.35%, and the results for tenderness respectively 7.22 mm/45g, 8.27 mm/45g, 10.09 mm/45g, 12.69 mm/45g, and 14.71 mm/45g. Rice bran flour substitution has an effect on the appearance of the microstructure which along with the addition of rice bran. The microstructure of goat sausage made the appearance denser, compacter, and more uniform which the addition of rice bran. This study showed that the substitution of tapioca flour with rice bran flour on ratio P4 (0:100) had the best results on physical qualities and microstructural test.

Keywords: Goat sausages, Rice bran flour, Physical quality, and microstructures.