

PENGARUH TEPUNG DAUN JERUK PURUT (*Citrus hystrix*) TERHADAP MIKROSTRUKTUR, KUALITAS FISIK, DAN SENSORIS BAKSO DAGING SAPI

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INTISARI

Penelitian ini bertujuan untuk mengetahui pengaruh tepung daun jeruk purut terhadap mikrostruktur, kualitas fisik, dan sensoris bakso daging sapi. Bahan yang digunakan yaitu daging sapi, tepung tapioka, STPP, telur ayam, garam, penyedap rasa, bawang putih, bawang merah, lada, daun bawang, daun seledri, air es, dan daun jeruk purut. Perlakuan dalam penelitian ini adalah penambahan tepung daun jeruk purut sebesar 0, 0,09, 0,13, dan 0,18%. Parameter yang diukur yaitu mikrostruktur, kualitas fisik (pH, daya ikat air dan keempukan), dan kualitas sensoris (warna, aroma, rasa, tekstur, dan daya terima). Mikrostruktur bakso dianalisis secara deskriptif. Kualitas fisik dianalisis dengan analisis variansi rancangan acak lengkap (RAL) pola searah dan apabila terdapat perbedaan signifikan di antara rerata dilanjutkan dengan uji *Duncan's New Multiple Range Test* (DMRT). Kualitas sensoris dianalisis menggunakan Kruskal Wallis. Hasil pengamatan mikrostruktur pada bakso daging sapi dengan level penambahan tepung daun jeruk purut yang meningkat menyebabkan struktur bakso menjadi kurang kompak dan memiliki banyak rongga. Hasil analisis statistik menunjukkan bahwa penambahan tepung daun jeruk purut pada bakso daging sapi memberikan perbedaan nyata ($P < 0,05$) terhadap nilai pH berturut-turut $6,40 \pm 0,01$; $6,46 \pm 0,01$; $6,39 \pm 0,01$; dan $6,37 \pm 0,01$, daya ikat air berturut-turut $28,18 \pm 0,20$; $22,79 \pm 0,50$; $26,66 \pm 0,81$; dan $35,88 \pm 0,24\%$, serta keempukan berturut-turut $6,53 \pm 0,15$; $8,40 \pm 0,62$; $13,10 \pm 1,23$; dan $13,13 \pm 1,07$ mm/50g. Penambahan tepung daun jeruk purut tidak memberikan perbedaan nyata ($P > 0,05$) terhadap kualitas sensoris warna, rasa, aroma, tekstur, dan daya terima bakso. Kesimpulan yang dapat ditarik dari penelitian ini yaitu bakso daging sapi dengan penambahan tepung daun jeruk purut sebanyak 0% memiliki mikrostruktur paling homogen. Penambahan tepung daun jeruk purut sebanyak 0,18% memiliki kualitas fisik bakso paling baik. Tepung daun jeruk purut dapat diterima sebagai inovasi dalam pembuatan bakso.

Kata kunci: Bakso sapi, *Citrus hystrix*, Mikrostruktur, Kualitas fisik, Kualitas sensoris

EFFECT OF KAFFIR LIME LEAF (*Citrus hystrix*) POWDER ON MICROSTRUCTURE, PHYSICAL, AND SENSORY CHARACTERISTICS OF BEEF MEATBALL

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ABSTRACT

This study aims to determine the effect of kaffir lime leaves powder on the microstructure, physical quality, and sensory of beef meatballs. The ingredients used were beef, tapioca flour, STPP, chicken eggs, salt, flavoring, garlic, shallots, pepper, green onions, celery leaves, cold water, and kaffir lime leaves. The treatment in this study was the addition of kaffir lime leaves powder of 0, 0,09, 0,13, dan 0,18%. The parameters measured were microstructure, physical quality (pH, water binding capacity and tenderness), and sensory quality (color, aroma, taste, texture, and acceptability). Microstructure of the meatball was analyzed descriptively. Physical quality was analyzed using analysis of variance of a complete randomized design (CRD) one-way pattern and if there was a significant difference between the means, it was continued with Duncan's New Multiple Range Test (DMRT). Sensory quality was analyzed using Kruskal Wallis. The results of microstructure observations on beef meatballs with increasing levels of kaffir lime leaf powder addition caused the meatball structure to be less compact and have many cavities. The results of statistical analysis showed that the addition of kaffir lime leaves powder to beef meatballs gave a significant difference ($P < 0.05$) to the pH value of 6.40 ± 0.01 ; 6.46 ± 0.01 ; 6.39 ± 0.01 , and 6.37 ± 0.01 , water binding capacity of 28.18 ± 0.20 ; 22.79 ± 0.50 ; 26.66 ± 0.81 ; and $35.88 \pm 0.24\%$, and tenderness of 6.53 ± 0.15 ; 8.40 ± 0.62 ; 13.10 ± 1.23 ; and 13.13 ± 1.07 mm/50g. The addition of kaffir lime leaves powder did not give a significant difference ($P > 0.05$) to the sensory quality of color, taste, aroma, texture, and acceptability of meatballs. The conclusion that can be drawn from this research is that beef meatballs with 0% kaffir lime leaf powder addition have the most homogeneous microstructure. The addition of 0.18% kaffir lime leaf powder has the best physical quality of meatballs. Kaffir lime leaf powder can be accepted as an innovation in making meatballs.

Keywords: Beef meatballs, *Citrus hystrix*, Microstructure, Physical quality, Sensory quality