

PENGARUH PENAMBAHAN TEPUNG DAUN KATUK (*Sauropus androgynus* (L.) Merr.) DAN LAMA PENYIMPANAN PADA SUHU REFRIGERATOR TERHADAP KUALITAS FISIK DAN MIKROSTRUKTUR BAKSO AYAM BROILER

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INTISARI

Penelitian ini bertujuan untuk mengetahui pengaruh penambahan tepung daun katuk (*Sauropus androgynus* (L.) Merr.) dan lama penyimpanan pada suhu *refrigerator* terhadap kualitas fisik dan mikrostruktur bakso ayam broiler. Rancangan percobaan yang digunakan adalah Rancangan Acak Lengkap (RAL) pola faktorial (3x4) dengan 3 pengulangan. Faktor pertama yaitu penambahan tepung daun katuk dengan level (0, 1, 2%) dari total adonan bakso dan faktor kedua yaitu masa simpan dalam *refrigerator* bersuhu 4°C selama (0, 2, 4, 6 hari). Data hasil uji kualitas fisik dianalisis variansi pola faktorial dan apabila terdapat perbedaan yang nyata dilanjutkan dengan uji *Duncan's New Multiple Range Test*. Mikrostruktur bakso dianalisis secara deskriptif. Hasil penelitian menunjukkan bahwa penambahan tepung daun katuk dengan level penambahan 0, 1, dan 2% berpengaruh nyata ($P < 0,05$) terhadap peningkatan daya ikat air bakso ($51,79 \pm 0,45$, $52,42 \pm 0,37$, dan $52,86 \pm 0,74\%$). Mikrostruktur bakso dengan penambahan tepung daun katuk menghasilkan mikrostruktur bakso yang lebih baik dibandingkan tanpa penambahan tepung daun katuk. Penyimpanan bakso pada suhu *refrigerator* selama 0, 2, 4, dan 6 hari memberikan pengaruh yang nyata ($P < 0,05$) terhadap penurunan nilai pH ($6,59 \pm 0,05$, $6,58 \pm 0,04$, $6,54 \pm 0,03$, dan $6,49 \pm 0,04$), daya ikat air ($53,54 \pm 0,89$, $53,09 \pm 0,75$, $52,61 \pm 0,31$, dan $50,19 \pm 0,99\%$), dan keempukan bakso ($13,08 \pm 0,49$, $12,70 \pm 0,50$, $12,36 \pm 0,33$, dan $10,34 \pm 0,44$ mm/45g). Semakin lama penyimpanan menyebabkan mikrostruktur bakso menjadi kurang rapat dan tidak kompak. Kesimpulan dari penelitian ini adalah penambahan tepung daun katuk sebanyak 2% pada bakso ayam broiler menghasilkan kualitas fisik dan mikrostruktur yang terbaik. Penyimpanan bakso dengan penambahan tepung daun katuk dalam *refrigerator* bersuhu 4°C dapat mempertahankan mikrostruktur bakso selama 4 hari.

Kata kunci: Bakso ayam broiler, Tepung daun katuk, Lama penyimpanan, Kualitas fisik, Mikrostruktur.

THE EFFECT OF KATUK LEAF FLOUR (*Sauropus androgynus* (L.) Merr.) ADDITION AND STORAGE TIME AT THE REFRIGERATOR TEMPERATURE ON THE PHYSICAL AND MICROSTRUCTURAL QUALITIES OF BROILER CHICKEN MEATBALLS

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ABSTRACT

This study aims to determine the effect of katuk leaf flour (*Sauropus androgynus* (L.) Merr.) addition and storage time at refrigerator temperature on the physical and microstructural qualities of broiler chicken meatballs. The experiment was designed using a Completely Randomized Design (CRD) factorial pattern (3x4) with 3 replications. The first factor was the addition of katuk leaf flour (0, 1, and 2%) of the total meatball dough and the second factor was storage time in the refrigerator at 4°C for (0, 2, 4, and 6 days). Parameters tested include the physical quality (pH, water holding capacity, and tenderness) and microstructural quality of meatballs. Data from physical quality test results were analyzed using analysis of variance factorial, and if there were significant differences then continued with Duncan's New Multiple Range Test. The microstructure qualities of meatballs were analyzed descriptively. The results showed that the addition of katuk leaf flour with addition levels of 0, 1, and 2% had a significant effect ($P < 0,05$) on increasing the water-holding capacity of meatballs (51.79 ± 0.45 , 52.42 ± 0.37 , and $52.86 \pm 0.74\%$). The microstructure of meatballs with the addition of katuk leaf flour provides a better microstructure than meatballs without the addition of katuk leaf flour. Storage of meatballs at refrigerator temperature for 0, 2, 4, and 6 days had a significant effect ($P < 0,05$) on decreasing the pH value (6.59 ± 0.05 , 6.58 ± 0.04 , 6.54 ± 0.03 , and 6.49 ± 0.04), water holding capacity (53.54 ± 0.89 , 53.09 ± 0.75 , 52.61 ± 0.31 , and $50.19 \pm 0.99\%$), and meatball tenderness (13.08 ± 0.49 , 12.70 ± 0.50 , 12.36 ± 0.33 , and 10.34 ± 0.44 mm/45g). Storage time caused the meatball microstructure to become less dense and not compact. There was no interaction between the addition of katuk leaf flour and storage time at refrigerator temperature on the physical quality of the meatballs. This study concluded that the addition of 2% katuk leaf flour to broiler meatballs produces the best physical and microstructural qualities. Storage of meatballs with the addition of katuk leaf flour at refrigerator temperature can maintain the microstructural qualities of meatballs for 4 days.

Keywords: Broiler chicken meatballs, Katuk leaf flour, Storage time, Physical quality, Microstructural.