

**PENGARUH PENAMBAHAN GELATIN TERHADAP KUALITAS FISIK
DAN MIKROSTRUKTUR BAKSO DAGING SAPI**

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INTISARI

Penelitian ini bertujuan untuk mengetahui kualitas fisik dan mikrostruktur bakso sapi dengan penambahan gelatin. Penelitian ini dilakukan dengan penambahan gelatin (0,2,4,dan 6%). Variabel yang diuji antara lain pH, daya ikat air, keempukan, dan mikrostruktur bakso. Data dianalisis menggunakan analisis variansi Pola Searah dan dilanjutkan secara Duncan's Multiple Range Test (DMRT). Data uji mikrostruktur dianalisis menggunakan analisa deskriptif. Hasil penelitian menunjukkan bahwa pH bakso dengan level penambahan 0, 2, 4, dan 6% berturut-turut yaitu $6,17 \pm 0,11$; $6,39 \pm 0,16$; $6,46 \pm 0,15$; dan $6,54 \pm 0,13$. Daya ikat air bakso sapi pada level penambahan 0, 2, 4 dan 6% berturut-turut yaitu $61,94 \pm 2,64\%$; $63,76 \pm 2,12\%$; $64,26$ dan $65,75 \pm 2,57\%$. Keempukan bakso sapi dengan level penambahan 0,2, 4,dan 6 % berturut-turut yaitu $16,08 \pm 1,55$; $15,41 \pm 1,89$; $11,9 \pm 1,29$; dan $7,7 \pm 0,48$. Hasil analisis statistik pH, daya ikat air bakso, dan keempukan bakso menunjukkan perbedaan yang nyata ($P < 0,05$). Berdasarkan hasil yang diperoleh dari penelitian, dapat disimpulkan bahwa penambahan gelatin pada adonan bakso sapi dapat mempengaruhi sifat fisik bakso. penambahan gelatin dengan rasio 4% memiliki mikrostruktur yang lebih baik diakarenakan memiliki struktur yang kompak, tekstur padat, homogen, ukuran rongga yang kecil serta tersebar merata.

Kata kunci : Bakso, Gelatin, Kualitas fisik, Mikrostruktur.

THE EFFECT OF GELATIN ADDITION ON PHYSICAL QUALITY AND MICROSTRUCTURAL OF BEEF MEATBALL

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ABSTRACT

This study aims to determine the physical quality and microstructure of beef meatballs with the addition of gelatin. This study was conducted with the addition of gelatin (0, 2, 4, and 6%). The variables tested included pH, water binding capacity, tenderness, and microstructure of meatballs. Data were analyzed using Unidirectional Pattern analysis of variance and followed by Duncan's Multiple Range Test (DMRT). Microstructure test data were analyzed using descriptive analysis. The results showed that the pH of meatballs with the addition level of 0, 2, 4, and 6% were 6.17 ± 0.11 ; 6.39 ± 0.16 ; 6.46 ± 0.15 ; and 6.54 ± 0.13 , respectively. The water binding capacity of beef meatballs at the addition level of 0, 2, 4, and 6% were $61.94 \pm 2.64\%$; $63.76 \pm 2.12\%$; 64.26 and $65.75 \pm 2.57\%$, respectively. The tenderness of beef meatballs with 0, 2, 4, and 6% addition levels were 16.08 ± 1.55 ; 15.41 ± 1.89 ; 11.9 ± 1.29 ; and 7.7 ± 0.48 , respectively. The results of statistical analysis of pH, water binding capacity of meatballs, and meatball tenderness showed significant differences ($P < 0.05$). Based on the results obtained from the study, it can be concluded that the addition of gelatin to beef meatball dough can affect the physical properties of meatballs. the addition of gelatin with a ratio of 4% has a better microstructure because it has a compact structure, dense texture, homogeneous, small cavity size and evenly distributed.

Keywords : Meatballs, Gelatin, Physical quality, Microstructure.