

PENGARUH PENAMBAHAN TEPUNG KARAGENAN TERHADAP KUALITAS KIMIA, SENSORIS, DAN TEKSTUR BAKSO DAGING SAPI RENDAH KARBOHIDRAT

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INTISARI

Penelitian ini bertujuan untuk mengetahui pengaruh penambahan tepung karagenan terhadap kualitas kimia, sensoris, dan tekstur bakso daging sapi rendah karbohidrat. Perlakuan pada penelitian ini adalah penambahan tepung karagenan pada bakso daging sapi dengan level penambahan 0, 0,5, 1, dan 1,5% dengan 6 kali pengulangan. Bakso dibuat dengan menggunakan daging sapi dengan penambahan tepung karagenan kemudian dilakukan uji kualitas kimia (kadar air, protein, lemak, abu, dan karbohidrat), uji sensoris (warna, aroma, rasa, tekstur, dan daya terima), dan uji tekstur. Analisis data dilakukan dengan variansi pola searah (*One Way Anova*) dan dilanjutkan dengan uji *Duncan's New Multiple Range Test* (DMRT), sedangkan data sensoris dianalisis dengan *Kruskal-Wallis Test* dilanjutkan dengan uji *Mann-Whitney*. Hasil penelitian menunjukkan bahwa penambahan tepung karagenan sampai level 1,5% pada bakso daging sapi berpengaruh ($P < 0,05$) terhadap kadar air (72,59; 74,82; 74,58; 75,04%), abu (2,04; 2,14; 2,18; 2,31%), rasa (3,80; 2,80; 4,13; 4,67), tekstur (3,33; 3,80; 3,73; 4,20), *cohesiveness* (0,71; 0,62; 0,63; 0,67), *gumminess* (10,77; 8,57; 9,86; 10,29), dan *firmness* (2,22; 2,29; 2,40; 2,68KgF); tetapi berpengaruh tidak nyata ($P > 0,05$) terhadap kadar protein (23,03; 23,08; 23,19; 23,31%), lemak (3,23; 3,33; 3,62; 3,72%), karbohidrat (4,50; 4,60; 4,77; 4,82%), warna (3,93; 3,87; 4,13; 4,13), aroma (3,80; 3,80; 3,67; 3,80), daya terima (3,87; 4,07; 4,20; 4,47), *hardness* (15,45; 13,33; 15,59; 15,28g), *springiness* (86; 84,63; 86,07; 86,36%), dan *chewiness* (9,17; 7,20; 8,47; 8,93). Berdasarkan hasil penelitian, perlakuan terbaik yaitu penambahan tepung karagenan sebanyak 1,5%.

Kata kunci: Bakso, Daging sapi, Karagenan, Kualitas kimia, Sensoris, Tekstur.

THE EFFECT OF ADDING CARRAGEENAN FLOUR ON THE CHEMICAL, SENSORY, AND TEXTURE QUALITY OF LOW-CARBOHYDRATE BEEF MEATBALLS

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ABSTRACT

This research aimed to determine the effect of carrageenan flour addition on the chemical, sensory, and textural quality of low-carbohydrate beef meatballs. The treatment in this research involved adding carrageenan flour to beef meatballs at levels of 0%, 0.5%, 1%, and 1.5%, with six repetitions. The meatballs were made using beef with added carrageenan flour and then tested for chemical quality (moisture, protein, fat, ash, and carbohydrate content), sensory test (color, aroma, taste, texture, and acceptability), and texture quality test. The data was analyzed using one-way analysis of variance (ANOVA), and then all the significant data were analyzed with Duncan's New Multiple Range Test (DMRT), while the sensory quality were analyzed using the Kruskal-Wallis Test followed by the Mann-Whitney Test. The research results indicated that carrageenan flour addition up to 1.5% in beef meatballs had a significant effect ($P < 0.05$) moisture content (72.59; 74.82; 74.58; 75.04%), ash (2.04; 2.14; 2.18; 2.31%), taste (3.80; 2.80; 4.13; 4.67), texture (3.33; 3.80; 3.73; 4.20), cohesiveness (0.71; 0.62; 0.63; 0.67), gumminess (10.77; 8.57; 9.86; 10.29), and firmness (2.22; 2.29; 2.40; 2.68 KgF). However, it did not have a significant effect ($P > 0.05$) on protein content (23.03; 23.08; 23.19; 23.31%), fat (3.23; 3.33; 3.62; 3.72%), carbohydrate (4.50; 4.60; 4.77; 4.82%), color (3.93; 3.87; 4.13; 4.13), aroma (3.80; 3.80; 3.67; 3.80), acceptability (3.87; 4.07; 4.20; 4.47), hardness (15.45; 13.33; 15.59; 15.28g), springiness (86; 84.63; 86.07; 86.36%), and chewiness (9.17; 7.20; 8.47; 8.93). Based on the research results, the best treatment was the addition of 1.5% carrageenan flour.

Keyword: Meatball, Beef, Carrageenan, Chemical, Sensory, Texture qualities.