

PENGARUH LEVEL LEMAK DAN WHEY POWDER TERHADAP KUALITAS KIMIA DAN SENSORIS BAKSO DAGING SAPI

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INTISARI

Penelitian ini bertujuan untuk mengetahui pengaruh level lemak daging dan *whey powder* terhadap kualitas kimia dan sensoris bakso daging sapi. Level penambahan level *whey powder* 0%, 2%, dan 4% ditambahkan pada bakso daging sapi pada formulasi level lemak 5%, 10%, dan 20%. Penelitian ini menggunakan Rancangan Acak Lengkap (RAL) pola faktorial 3x3 (3 level lemak daging, 3 level pemberian whey protein) dan 3 kali pengulangan. Parameter yang diamati adalah kualitas kimia (Kadar air, kadar protein, kadar lemak, dan kadar abu) dan sensoris (warna, rasa, tekstur, aroma, dan daya terima). Kualitas kimia dianalisis dengan menggunakan metode AOAC (*Association of Official Analytical Chemist*). Kualitas sensoris diuji secara subjektif dengan uji panelis. Data kualitas kimia dianalisis dengan pola faktorial dan kualitas sensoris dianalisis dengan metode *Friedman* Perbedaan rerata diuji dengan uji *Duncan's New Multiple Range Test* (DMRT). Hasil penelitian menunjukkan level lemak berpengaruh nyata ($P < 0,05$) terhadap kualitas kimia bakso daging sapi meliputi kadar air, lemak, protein, dan abu. Penambahan *whey powder* berpengaruh nyata ($P < 0,05$) terhadap kualitas kimia kadar air, lemak, dan abu, sedangkan *whey powder* tidak berpengaruh nyata ($P > 0,05$) terhadap kadar protein bakso daging sapi. Interaksi level lemak dengan *whey powder* berpengaruh nyata ($P < 0,05$) terhadap kadar air, kadar lemak, kadar protein, dan kadar abu. Hasil uji sensoris menunjukkan bahwa level lemak berpengaruh nyata ($P < 0,05$) terhadap warna, rasa, tekstur, aroma, dan daya terima bakso daging sapi. Penambahan *whey powder* berpengaruh nyata ($P < 0,05$) terhadap warna, dan tekstur bakso daging sapi, tetapi tidak berpengaruh nyata terhadap parameter rasa, aroma, dan daya terima bakso daging sapi ($P > 0,05$). Interaksi antara level lemak dan *whey powder* berpengaruh nyata terhadap parameter warna, rasa, tekstur, aroma, dan daya terima bakso daging sapi ($P < 0,05$). Kesimpulan dari penelitian ini adalah level lemak 5% dengan penambahan *whey powder* sebesar 4% menghasilkan bakso daging sapi dengan nilai kualitas kimia dan sensoris yang terbaik.

(Kata kunci: Daging Sapi, Bakso, Lemak, *Whey powder*, Kualitas kimia, Sensoris)

EFFECT OF FAT LEVEL AND WHEY POWDER ON CHEMICAL AND SENSORY QUALITY OF BEEF MEATBALL

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ABSTRACT

This study aimed to find out the effect of the level of fat and whey powder on the chemical and sensory quality of beef meatballs. Whey powder at level of 0%, 2%, and 4% was added to beef meatballs formulated with 5%, 10%, and 20% fat level. The statistical design of the research is Completely Randomized Design (CRD) with a 3x3 factorial designs (3 levels of meat fat, 3 levels of whey protein) and 3 replications. The parameters observed were chemical quality (moisture content, protein content, fat content, and ash content) and sensory quality (color, taste, aroma, texture, and acceptability). The chemical quality was analyzed by AOAC (Association of Official Analytical Chemist) method. Sensory quality is tested subjectively by panelist test. The obtained chemical quality data was statistically analyzed by factorial designs and sensory quality was analyzed by non-parametric test using Friedman method. The difference of means was tested by Duncan's New Multiple Range Test (DMRT). The results showed that the level of fat had a significant effect on the moisture, fat, protein, and ash content of beef meatballs ($P < 0.05$). The addition of whey powder had a significant effect on the chemical quality of moisture, fat, and ash content ($P < 0.05$), whey powder had no significant effect on the protein content of beef meatballs ($P > 0.05$). The interaction of fat level and whey powder had a significant effect on water content, fat content, protein content, and ash content beef meatballs ($P < 0.05$). The sensory test results showed that the level of fat had a significant effect on the parameter color, taste, texture, aroma, and acceptability of beef meatballs ($P < 0.05$). The addition of whey powder had a significant effect on the color and texture of beef meatballs ($P < 0.05$) and had no significant effect on the parameters of taste, aroma, and acceptability of beef meatballs ($P > 0.05$). The interaction between the level of fat and whey powder had a significant effect on the parameters of color, taste, texture, aroma, and acceptability of beef meatballs ($P < 0.05$). The conclusion of this study was the treatment using 5% fat level and 4% whey powder produced the best chemical and sensory quality value of beef meatballs.

(Keywords: Beef meat, Meatball, Fat, Whey powder, Chemical quality, Sensory)