

## PENGARUH PENAMBAHAN BAHAN PERENYAH TERHADAP KUALITAS FISIK DAN SENSORIS BAKSO GORENG DAGING SAPI

### INTISARI

Penelitian ini bertujuan untuk mengetahui pengaruh penambahan bahan perenyah *baking powder* ( $\text{NaHCO}_3 + \text{C}_4\text{H}_6\text{O}_6$ ), *baking soda* ( $\text{NaHCO}_3$ ), dan SAPP atau *Sodium Acid Pyrophosphate* ( $\text{Na}_2\text{H}_2\text{P}_2\text{O}_7$ ) terhadap kualitas fisik, dan sensoris bakso goreng daging sapi dengan perlakuan yaitu P0 (kontrol), P1 (*baking powder*), P2 (*baking soda*), P3 (SAPP). Penambahan bahan perenyah yang ditambahkan sejumlah 0,3% dari total adonan bakso goreng. Parameter yang diamati yaitu kualitas fisik (nilai pH, *crispiness*, *crunchiness*, *hardness*), kualitas sensoris (uji warna, aroma, rasa, tekstur, dan daya terima). Data yang diperoleh dianalisis menggunakan analisis variansi pola searah dan apabila terdapat perbedaan rerata akan diuji lanjut menggunakan analisis *Duncan's Multiple Range Test* (DMRT). Data kualitas sensoris dianalisis dengan analisis *non-parametrik* dengan *Kruskal and Wallis Test*. Hasil penelitian menunjukkan bahwa perlakuan penambahan bahan perenyah *baking powder*, *baking soda*, dan SAPP memberikan pengaruh yang nyata ( $P < 0,05$ ) terhadap nilai pH, *crispiness*, *crunchiness*, *hardness*, aroma, namun untuk kualitas aroma, rasa, tekstur, dan daya terima tidak berpengaruh nyata ( $P > 0,05$ ). Nilai pH menunjukkan data 6,8 (P0), 6,9 (P1), 7,5 (P2), 6,8 (P3). Nilai *crispiness* menunjukkan data 216,86 (P0), 470,96 (P1), 348,11 (P2), 21.596,70 (P3). Nilai *crunchiness* menunjukkan data 72,91 (P0), 52,45 (P1), 42,93 (P2), 190,51 (P3). Berdasarkan penelitian dapat disimpulkan penambahan bahan perenyah SAPP atau *Sodium Acid Pyrophosphate* ( $\text{Na}_2\text{H}_2\text{P}_2\text{O}_7$ ) pada bakso goreng daging sapi menunjukkan kualitas fisik nilai pH, *crispiness* dan *crunchiness* yang terbaik

Kata Kunci: Bakso goreng, *baking powder*, *baking soda*, *Sodium Acid Pyrophosphate*.

## THE EFFECT OF ADDITIONAL *LEAVENING AGENT* ON PHYSICAL AND SENSORIAL QUALITIES OF FRIED BEEF MEATBALLS

### ABSTRACT

This study aims to determine the effect of adding baking powder ( $\text{NaHCO}_3 + \text{C}_4\text{H}_6\text{O}_6$ ), baking soda ( $\text{NaHCO}_3$ ), and SAPP or Sodium Acid Pyrophosphate ( $\text{Na}_2\text{H}_2\text{P}_2\text{O}_7$ ) to the physical and sensorial qualities of fried beef meatballs with treatments, namely P0 (control), P1 (baking powder), P2 (baking soda), P3 (SAPP). The addition of the leavening agent added in the amount of 0.3% of the total fried meatball dough. Parameters observed were physical quality (pH value, crispiness, crunchiness, hardness), sensorial quality (test color, aroma, taste, texture, and acceptability). The data obtained were analyzed using with a oneway anova pattern analysis and if there was a mean difference, it would be further analyzed using Duncan's Multiple Range Test (DMRT). Sensorial quality was analyzed by non-parametric analysis with Kruskal and Wallis. The results showed that the addition of baking powder, baking soda ( $\text{NaHCO}_3$ ), and SAPP treatment had a significant effect ( $P < 0.05$ ) on the pH value, crispiness, crunchiness, hardness, color, but the quality of odor, taste, texture, and acceptability had no significant effect ( $P > 0.05$ ). The pH values showed data of 6.8 (P0), 6.9 (P1), 7.5 (P2), 6.8 (P3). The crispiness value showed data of 216.86 (P0), 470.96 (P1), 348.11 (P2), 21596.70 (P3). The crunchiness value showed data 72.91 (P0), 52.45 (P1), 42.93 (P2), 190.51 (P3). Based on the research, it can be concluded that the addition of SAPP or Sodium Acid Pyrophosphate ( $\text{Na}_2\text{H}_2\text{P}_2\text{O}_7$ ) on fried beef meatballs showed the best physical qualities of pH value, crispiness, and *crunchiness*.

Keywords: Fried beef meatballs, baking powder, baking soda, Sodium Acid Pyrophosphate.