PENGARUH FORTIFIKASI TEPUNG KAYU MANIS (*Cinnamomum burmannii*) TERHADAP AKTIVITAS ANTIOKSIDAN, SIFAT KIMIA, DAN SENSORIS BAKSO AYAM JOPER

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INTISARI

Penelitian ini bertujuan untuk mengetahui pengaruh penambahan kayu manis (*Cinnamomum burmannii*) terhadap aktivitas antioksidan, sifat kimia, dan sensoris bakso daging ayam Joper. Perlakuan yang dilakukan pada penelitian ini yaitu penambahan tepung kayu manis sebesar 0, 1, dan 2% (b/b). Setiap level perlakuan diulang sebanyak 3 kali. Parameter yang diamati meliputi aktivitas antioksidan (1,1-*diphenyl*-2-*picrylhydrazyl* atau DPPH), sifat kimia berupa kadar air, kadar protein, dan kadar lemak, dan kualitas sensoris berupa warna, rasa, aroma, tekstur, dan daya terima. Data aktivitas antioksidan dan sifat kimia dianalisis dengan analisis variansi pola searah. Perbedaan reratanya diuji dengan uji *Duncan`s New Multiple Range Test*. Data kualitas sensoris dianalisis dengan analisis statistik non parametrik *Kruskal and Wallis Test.* Fortifikasi tepung kayu manis memberikan pengaruh yang signifikan ($P<0,05$) terhadap aktivitas antioksidan. Diperoleh nilai aktivitas antioksidan sebesar 47,74; 64,39; dan 70,46. Fortifikasi tepung kayu manis tidak memberikan pengaruh yang signifikan ($P>0,05$) terhadap kadar air, lemak, dan protein. Fortifikasi tepung kayu manis memberikan pengaruh yang signifikan ($P<0,05$) terhadap warna, rasa, aroma, tekstur, dan daya terima bakso ayam Joper. Secara umum, bakso tanpa fortifikasi (0%) lebih disukai dibandingkan dengan yang mengandung kayu manis (1% dan 2%). Kesimpulan dari penelitian ini menunjukkan bahwa fortifikasi tepung kayu manis pada bakso ayam Joper dapat meningkatkan aktivitas antioksidan dan kadar protein serta dapat menurunkan kadar lemak.

Kata kunci: Aktivitas Antioksidan, Bakso Ayam Joper, Kayu Manis, Kualitas Sensoris, Sifat Kimia.

EFFECT OF FORTIFICATION CINNAMON FLOUR (*Cinnamomum burmannii*) ON ANTIOXIDANT ACTIVITY, CHEMICAL PROPERTIES, AND SENSORY OF JOPER CHICKEN MEATBALLS

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ABSTRACT

This research aims to determine the effect of adding cinnamon (*Cinnamomum burmannii*) on the antioxidant activity, chemical and sensory properties of Joper chicken meatballs. The treatment carried out in this research was the addition of 0% cinnamon flour; 1 and 2% (w/w). Each treatment level was repeated 3 times. The parameters observed included antioxidant activity (1,1-diphenyl-2-picrylhydrazyl or DPPH), chemical properties in the form of water content, protein content and fat content, and sensory qualities in the form of color, taste, aroma, texture, and acceptability. Data on antioxidant activity and chemical properties were analyzed using unidirectional analysis of variance. The difference in means was tested using Duncan's New Multiple Range Test. Sensory quality data was analyzed using non-parametric statistical analysis Kruskal and Wallis Test. Cinnamon flour fortification had a significant effect ($P<0.05$) on antioxidant activity. The antioxidant activity value obtained was 47.74; 64.39; and 70.46. Cinnamon flour fortification did not significantly affect ($P>0.05$) air, fat, and protein content. Cinnamon flour fortification has a significant impact ($P<0.05$) on the color, taste, aroma, texture, and acceptability of Joper chicken meatballs. In general, meatballs without fortification (0%) are preferable compared to those containing cinnamon (1% and 2%), especially in terms of color, taste, aroma, and acceptability. The conclusion of this research shows that fortification of cinnamon flour in Joper chicken meatballs can increase antioxidant activity and protein levels and can reduce fat levels.

Keywords: Antioxidant Activity, Joper Chicken Meatballs, Cinnamon, Sensory Quality, Chemical Properties.