

**PENGARUH PENAMBAHAN EKSTRAK BROKOLI DAN LAMA
PENYIMPANAN DALAM REFRIGERATOR TERHADAP
AKTIVITAS ANTIOKSIDAN DAN KOMPOSISI
KIMIA *NUGGET* AYAM**

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INTISARI

Penelitian ini bertujuan untuk mengetahui pengaruh penambahan ekstrak brokoli dan lama penyimpanan dalam refrigerator terhadap aktivitas antioksidan dan komposisi kimia *nugget* ayam. Perlakuan penambahan ekstrak brokoli sebagai antioksidan yaitu level penambahan 0% (kontrol) dan 2% dari total adonan. Variabel yang diamati meliputi: aktivitas antioksidan dan komposisi kimia (kadar air, lemak, dan protein). *Nugget* disimpan dalam refrigerator kemudian dilakukan uji antioksidan dan komposisi kimia pada hari ke-0, 7, 14, dan 21 dengan 3 kali pengulangan. Data aktivitas antioksidan dan komposisi kimia dianalisis dengan analisis variansi petak terpisah (*Split Plot*) yang terdiri dari 2 faktor, faktor A konsentrasi penambahan ekstrak brokoli dan faktor B lama penyimpanan. Perbedaan rerata yang nyata dari perlakuan diuji dengan *Duncan's New Multiple Range Test* (DMRT). Hasil penelitian menunjukkan suplementasi ekstrak brokoli berpengaruh nyata terhadap aktivitas antioksidan dan kadar air serta tidak berbeda nyata terhadap kadar lemak dan protein. Perlakuan penyimpanan berpengaruh nyata terhadap aktivitas antioksidan, kadar air, dan kadar lemak serta tidak berbeda nyata terhadap kadar protein. Kesimpulan dari penelitian ini adalah suplementasi 2% ekstrak brokoli pada *nugget* ayam dapat mempengaruhi aktivitas antioksidan dan komposisi kimia *nugget* ayam yang disimpan pada suhu refrigerator selama 21 hari.

Kata kunci: *Nugget* ayam, Suplementasi brokoli, Penyimpanan dingin, Aktivitas antioksidan, Komposisi kimia.

EFFECT OF BROCCOLI EXTRACT ADDITION AND STORAGE TIME IN THE REFRIGERATOR ON ANTIOXIDANT ACTIVITY AND CHEMICAL COMPOSITION OF CHICKEN NUGGETS

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ABSTRACT

This study aims to determine the effect of adding broccoli extract and storage time in the refrigerator on the antioxidant activity and chemical composition of chicken nuggets. The treatment of the addition of broccoli extract as an antioxidant was the addition level of 0% (control) and 2% of the total dough. The observed variables included: antioxidant activity and chemical composition (moisture, fat, and protein content). Nuggets were stored in the refrigerator and tested further for antioxidant and chemical composition on days 0, 7, 14, and 21 with 3 repetitions. Data on antioxidant activity and chemical composition were analyzed by Split Plot analysis of variance consisting of 2 factors, factor A was the concentration of broccoli extract addition and factor B was the storage time. The significant difference in the mean of the treatments was tested by Duncan's New Multiple Range Test (DMRT). The results showed that broccoli extract supplementation had a significant effect on antioxidant activity and water content and was not significantly different on fat and protein content. Storage treatment had a significant effect on antioxidant activity, water content, and fat content and was not significantly different on protein content. The conclusion of this study is that supplementation of 2% broccoli extract in chicken nuggets can affect the antioxidant activity and chemical composition of chicken nuggets stored at refrigerator temperature for 21 days.

Keywords: Chicken nuggets, Broccoli supplementation, Cold storage, Antioxidant activity, Chemical composition.