

**PENGARUH LAMA PENYIMPANAN DALAM SUHU  
REFRIGERATOR TERHADAP KUALITAS FISIK, SENSORIS DAN  
MIKROSTRUKTUR *NUGGET* AYAM YANG DISUPLEMENTASI  
EKSTRAK BROKOLI (*Brassica oleracea*)**

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**INTISARI**

Penelitian ini bertujuan untuk mengetahui pengaruh lama penyimpanan dalam suhu refrigerator terhadap kualitas fisik, sensoris dan mikrostruktur *nugget* ayam yang disuplementasi ekstrak brokoli. Bahan yang digunakan yaitu daging ayam bagian dada dan paha, brokoli, tepung tapioka, tepung terigu, air, tepung roti, bawang putih, lada, merica, pala, ketumbar, telur, garam, minyak goreng. Ekstrak brokoli yang digunakan pada penelitian ini adalah 0% dan 2% ( $v/b$ ). *Nugget* ayam disimpan dalam suhu refrigerator kemudian dilakukan uji kualitas fisik, sensoris, dan mikrostruktur pada hari 0, 7, 14 dan 21. Data kualitas fisik dianalisis menggunakan analisis split plot. Data kualitas sensoris diuji dengan analisis statistik non parametric Kruskal and Wallis Test. Data mikrostruktur menggunakan metode deskriptif. Hasil penelitian menunjukkan bahwa penambahan ekstrak brokoli memberikan pengaruh yang sangat nyata ( $P < 0,01$ ) terhadap daya ikat air (DIA) dan tidak berpengaruh nyata ( $P > 0,05$ ) terhadap pH dan keempukan. Perlakuan lama penyimpanan memberikan pengaruh nyata ( $P < 0,05$ ) terhadap keempukan dan berpengaruh sangat nyata ( $P < 0,01$ ) terhadap pH dan DIA. Penelitian ini dapat disimpulkan bahwa pemakaian ekstrak brokoli menurunkan DIA dan lama penyimpanan menurunkan pH, DIA, keempukan serta menurunkan warna, rasa, tekstur, kekenyalan pada kualitas sensoris *nugget* ayam.

**Kata kunci:** *Nugget* ayam, Ekstrak brokoli, Lama penyimpanan, Kualitas fisik, Kualitas sensoris dan Mikrostruktur.



**THE EFFECT OF STORAGE TIME AT REFRIGERATOR TEMPERATURE ON THE PHYSICAL, SENSORY AND MICROSTRUCTURE QUALITY OF CHICKEN NUGGETS SUPPLEMENTED WITH BROCCOLI EXTRACT (*Brassica oleracea*)**

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**ABSTRACK**

This study aimed to determine the effect of storage time in refrigerator temperature on the physical, sensory and microstructure qualities of chicken nuggets supplemented with broccoli extract. The ingredients used were chicken breast and thigh parts, broccoli, tapioca flour, water, bread flour, garlic, pepper, nutmeg, coriander, eggs, salt, cooking oil. Broccoli extract used in this study was 0% and 2% ( $v/w$ ). Chicken nuggets stored at refrigerator temperature were then tested for physical, sensory and microstructure quality on days 0, 7, 14 and 21. Physical quality data were analyzed by using analysis of variance of split plot design. Sensory quality data were analyzed by using non parametric Kruskal and Wallis Test. Microstructure data was analyzed descriptively. The results showed that the addition of broccoli extract had a very significant effect ( $P < 0.01$ ) on water holding capacity and had no significant effect ( $P > 0.05$ ) on pH and tenderness. Storage time treatment had a significant effect ( $P < 0.05$ ) on tenderness and had a very significant effect ( $P < 0.01$ ) on pH and water holding capacity. The conclusion is that using broccoli extract reduce water holding capacity and storage time reduce pH, water holding capacity, tenderness and reduce color, taste, texture, elasticity in the sensory quality of chicken nuggets.

(Key words: Broccoli extract, Physical quality, Sensory quality, Storage duration, Mikrostruktur and Chicken Nugget)