

**PENGARUH EKSTRAK BROKOLI (*Brassica oleracea*)
TERHADAP KUALITAS FISIK, SENSORIS, DAN
MIKROSTRUKTUR SOSIS AYAM YANG
DISIMPAN PADA SUHU
REFRIGERATOR**

Indira Nur Aqni

15/378412/PT/06903

INTISARI

Penelitian ini bertujuan untuk mengetahui pengaruh ekstrak brokoli terhadap sifat fisik, kimia, dan sensoris sosis ayam yang disimpan pada suhu refrigerator. Materi yang digunakan pada penelitian ini adalah sosis ayam yang dibuat dengan komposisi daging ayam, tepung tapioka, susu skim, air, bumbu-bumbu dan ekstrak brokoli. Perlakuan penelitian ini terdiri dari penambahan brokoli dengan level 0 dan 2%. Sosis ayam disimpan di dalam refrigerator selama 21 hari. Sosis ayam dilakukan pengujian fisik (pH, daya ikat air, dan keempukan), sensoris (warna, rasa, tekstur, kekenyalan, juiciness), dan mikrostruktur pada hari ke-0, 7, 14, dan 21, dengan masing masing 5 ulangan setiap perlakuan. Data kualitas fisik dianalisis menggunakan analisis petak terbagi (*split plot design*). Kualitas sensoris dianalisis menggunakan analisis Kruskal-Wallis, sedangkan mikrostruktur dianalisis secara deskriptif. Hasil yang didapat menunjukkan bahwa ekstrak brokoli berpengaruh sangat nyata ($P<0,01$) terhadap pH dan kesukaan panelis terhadap warna, serta berpengaruh nyata ($P<0,05$) terhadap DIA. Ekstrak brokoli dapat menurunkan pH, menaikkan DIA menaikkan kesukaan panelis terhadap warna sosis ayam, dan memperbaiki mikrostruktur. Lama penyimpanan berpengaruh sangat nyata ($P<0,01$) terhadap pH, DIA, dan keempukan. Lama penyimpanan dapat menurunkan pH, DIA, keempukan, dan kualitas mikrostruktur. Berdasarkan penelitian ini dapat disimpulkan bahwa penambahan ekstrak brokoli 2% dapat mempertahankan kualitas sensoris sosis ayam yang disimpan pada suhu refrigerator hingga 21 hari.

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

**THE EFFECT OF BROKOLI EXTRACT (*Brassica oleracea*)
ON PHYSICAL, SENSORY, AND MICROSTRUCTURE
QUALITY OF CHICKEN SAUSAGE STORED
AT REFRIGERATOR TEMPERATURE**

Indira Nur Aqni

15/378412/PT/06903

ABSTRACT

This study aim to determine the effect of broccoli extract on physical, sensory, and microstructure qualities of chicken sausage stored at refrigerator temperature. The materials used in this study were chicken sausage made with chicken meat, tapioca flour, skim milk, water, spices, and broccoli extract. This study consisted addition of broccoli 0 and 2%. Chicken sausages are stored in the refrigerator for 21 days. Chicken sausages were subjected to physical (pH, water holding capacity, and tenderness), sensory (color, taste, texture, touchness, juiciness), and microstructure testing on days 0, 7, 14, and 21, with 5 replications each treatment. Physical quality data was analyzed by using split plot design. Sensory quality was analyzed by using Kruskal-Wallis analysis, while microstructure was analyzed descriptively. The results obtained showed that broccoli extract had very significant effect ($P < 0.01$) on pH and panelist's preference of color, and had significant effect ($P < 0.05$) on WHC. Broccoli extract could reduce pH, while increase WHC, tenderness, and improve microstructure. Storage duration had very significant effect ($P < 0.01$) on pH, WHC, and tenderness. Storage duration could reduce pH, WHC, tenderness, and microstructure quality of chicken sausages. Based on this study it can be concluded that the addition of 2% broccoli extract can maintain the sensory quality of chicken sausage stored at refrigerator temperature for up to 21 days.

Key words: Broccoli extract, Chicken sausage, Storage duration, Physical quality, Sensory quality, and Microstructure.