

## PENGARUH LAMA PEMASAKAN SEBELUM STERILISASI TERHADAP KUALITAS KIMIA DAN SENSORIS DAGING DAKGALBI KALENG

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### INTISARI

Penelitian ini bertujuan untuk mengetahui pengaruh lama pemasakan sebelum sterilisasi terhadap kualitas kimia (kadar air, kadar protein, kadar lemak, dan kadar kolagen) dan kualitas sensoris dakgalbi (ayam pedas Korea) kaleng. Bahan-bahan yang digunakan pada penelitian ini adalah daging ayam bagian dada, kentang, dan wortel. Bumbu-bumbu yang digunakan pada penelitian ini antara lain saus *gochujang*, bawang putih, bubuk cabai, gula pasir, merica bubuk, jahe, minyak wijen, kecap asin, dan air. Perlakuan lama pemasakan dilakukan dengan metode *hot boiling* (perebusan) menggunakan *waterbath* dengan suhu 90°C. Variasi lama pemasakan yang digunakan pada penelitian ini yaitu 0; 2,5; 5; 7,5; dan 10 menit. Hasil pemasakan dilanjutkan dengan pengemasan menggunakan kaleng. Pengalengan tersebut melalui proses sterilisasi pada suhu 121°C selama 45 menit. Sampel potongan daging diambil untuk dilakukan pengujian. Parameter-parameter yang diuji adalah kualitas kimia (kadar air, kadar protein, kadar lemak, dan kadar kolagen) dan kualitas sensoris (warna, aroma, tekstur, rasa, dan daya terima). Kualitas kimia diuji menggunakan metode Osborne dengan alat NIRS (*Near Infrared Spectroscopy*) *food scan*. Data yang diperoleh dari uji kualitas kimia dianalisis dengan Rancangan Acak Lengkap (RAL) pola searah, dilanjutkan dengan uji lanjutan *Duncan's New Multiple Range Test* (DMRT) apabila terdapat perbedaan rerata. Data yang didapatkan dari uji kualitas sensoris dianalisis dengan uji *Kruskal and Wallis*. Hasil penelitian menunjukkan bahwa lama pemasakan sebelum sterilisasi tidak berpengaruh nyata ( $P>0,05$ ) terhadap kadar air, kadar protein, kadar lemak, kadar kolagen, dan aroma dakgalbi. Hasil penelitian menunjukkan pengaruh nyata ( $P<0,05$ ) pada warna, tekstur, rasa, dan daya terima dakgalbi. Berdasarkan kualitas sensoris, lama pemasakan 7,5 dan 10 menit sebelum sterilisasi menghasilkan kualitas sensoris yang sama ( $P>0,05$ ). Lama pemasakan 7,5 dan 10 menit menghasilkan nilai kualitas warna, tekstur, rasa, dan daya terima yang lebih tinggi daripada lama pemasakan 0; 2,5; dan 5 menit. Berdasarkan kualitas sensoris dari penelitian ini lama waktu pemasakan 7,5 menit sebelum sterilisasi lebih disarankan karena memiliki kualitas warna, tekstur, rasa, dan daya terima yang sama dengan 10 menit dengan pemasakan lebih cepat tanpa mempengaruhi kualitas kimia.

**Kata kunci:** Dakgalbi, Kaleng, Kualitas kimia, Kualitas sensoris

## EFFECT OF COOKING TIME BEFORE STERILIZATION ON CHEMICAL AND SENSORIAL QUALITIES OF CANNED DAKGALBI MEAT

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### ABSTRACT

This research aimed is to determine the effect of cooking time before sterilization on chemical qualities (water content, protein content, fat content, and collagen content) and sensory qualities of canned dakgalbi (Korean spicy chicken). The ingredients used in this research were chicken breast, potatoes, and carrots. The spices used in this research include *gochujang* sauce, garlic, chili powder, granulated sugar, pepper powder, ginger, sesame oil, soy sauce, and water. The long cooking treatment was carried out by the hot boiling method using a water bath with a temperature of 90°C. The variations of cooking time that used in this research were 0; 2,5; 5; 7,5; and 10 minutes. The results of cooking were followed by packaging using cans. The canning goes through a sterilization process at 121°C for 45 minutes. Samples of pieces of meat were taken for testing. The parameters tested were chemical qualities (water content, protein content, fat content, and collagen content) and sensory qualities (color, aroma, texture, taste, and acceptability). Chemical qualities were analyzed using Osborne method with NIRS (Near Infrared Spectroscopy) food scan. The data obtained from the chemical qualities test were analyzed with a Completely Randomized Design (CRD) with a unidirectional pattern, followed by Duncan's New Multiple Range Test (DMRT) if there is a difference in the mean. The data obtained from the sensory qualities test were analyzed by the Kruskal and Wallis test. The results showed that the cooking time before sterilization had no significant effect ( $P>0,05$ ) on water content, protein content, fat content, collagen content, and aroma of dakgalbi. The results showed a significant effect ( $P<0,05$ ) on color, texture, taste, and acceptability of dakgalbi. Based on the sensory qualities, cooking time of 7,5 and 10 minutes before sterilization produced the same sensory qualities ( $P>0,05$ ). Cooking time of 7,5 and 10 minutes resulted in higher qualities of color, texture, taste, and acceptability than cooking time of 0; 2,5; and 5 minutes. Based on the sensory qualities of this research, a cooking time of 7,5 minutes before sterilization is recommended because it has the same color, texture, taste, and acceptability qualities as 10 minutes with faster cooking without affecting the chemical qualities.

**Keywords:** Dakgalbi, Canned, Chemical quality, Sensory quality