

PENGARUH LAMA STERILISASI *RETORT* TERHADAP KUALITAS KIMIA DAN RANSIDITAS BEBEK UNGKEP PADA PENYIMPANAN SUHU RUANG

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INTISARI

Bebek ungkep merupakan olahan daging bebek yang dibumbui dengan pemanasan secara perlahan. Produk bebek ungkep memiliki kelemahan yaitu masa simpan yang rendah pada suhu ruang. Penelitian ini bertujuan untuk mengetahui pengaruh sterilisasi *retort* dengan perlakuan lama sterilisasi yaitu 10 menit, 20 menit, dan 30 menit terhadap kualitas kimia dan ransiditas pada produk bebek ungkep. Produk bebek ungkep menggunakan bagian paha dan dikemas menggunakan kemasan *retort pouch*. Metode sterilisasi *retort* meliputi pemanasan tabung *boiler*, pemanasan tabung *retort*, pemasukan produk, *venting*, sterilisasi, dan *pressure cooling*. Sterilisasi *retort* dilakukan menggunakan suhu 121°C dengan tekanan 2 kg/cm² atau 30 psi. Pengujian kualitas kimia dan ransiditas dilakukan dengan lama penyimpanan hari ke-0, 7, 14, dan 21 pada suhu ruang. Pengujian kualitas kimia meliputi kadar air, protein, lemak, dan kolagen menggunakan metode *Near Infrared Spectroscopy* (NIRS) dan pengujian ransiditas menggunakan metode penentuan nilai TBA dengan pengujian satu kali untuk masing-masing kemasan *retort pouch*. Hasil data dianalisis dengan Rancangan Acak Lengkap (RAL) pola faktorial 3x4. Data yang memberikan perbedaan nyata, maka dilakukan uji lanjut menggunakan uji *Duncan's Multiple Range Test* (DMRT). Hasil penelitian menunjukkan bahwa perlakuan sterilisasi *retort* dengan waktu yang berbeda dan lama penyimpanan suhu ruang, serta interaksi antara kedua perlakuan tersebut memberikan perbedaan nyata ($P < 0,05$) terhadap kadar air, protein, lemak, kolagen, dan nilai TBA produk bebek ungkep. Kombinasi terbaik penyimpanan suhu ruang terhadap produk bebek ungkep yang disterilisasi adalah sterilisasi *retort* 20 menit dan lama penyimpanan hari ke-7 dengan nilai kadar air 61,57%; kadar protein 26,40%; kadar lemak 7,88%; kadar kolagen 2,71%; dan nilai TBA 0,40 mg malondialdehid/kg.

Kata kunci: Bebek Ungkep, Penyimpanan, Sterilisasi *Retort*.

THE EFFECT OF LENGTH OF RETORT STERILIZATION ON THE CHEMICAL QUALITY AND RANCIDITY VALUE OF BEBEK UNGKEP IN ROOM TEMPERATURE STORAGE

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ABSTRACT

Bebek ungkep was a processed duck meat product seasoned with spices and cooked slowly. Bebek ungkep had a weakness in that it had a short shelf life at room temperature. This study aimed to determine the effect of retort sterilization with sterilization times of 10, 20, and 30 minutes on the chemical quality and rancidity of bebek ungkep products. Bebek ungkep product used duck thigh meat and was packaged in retort pouches. The retort sterilization method included boiler heating, retort chamber heating, product loading, venting, sterilization, and pressure cooling. Retort sterilization was carried out at 121°C with a pressure of 2 kg/cm² or 30 psi. Chemical quality and rancidity were evaluated after storage at room temperature for 0, 7, 14, and 21 days. Chemical quality testing included moisture, protein, fat, and collagen contents using the Near Infrared Spectroscopy method, while rancidity was determined using the TBA value method with one analysis conducted for each retort pouch package. The data were analyzed using a 3×4 factorial completely randomized design. Data showing significant differences were further analyzed using Duncan's Multiple Range Test. The results showed that different retort sterilization times, room temperature storage periods, and the interaction between both treatments significantly affected ($P < 0.05$) the moisture, protein, fat, collagen contents, and TBA values of bebek ungkep products. The best combination for room temperature storage of sterilized bebek ungkep products was retort sterilization for 20 minutes and storage for 7 days, which resulted in moisture content of 61.57%, protein content of 26.40%, fat content of 7.88%, collagen content of 2.71%, and a TBA value of 0.40 mg malondialdehyde/kg.

Keywords: Bebek Ungkep, Storage, Retort Sterilization.