ANALISIS PENGARUH PROSES HOMOGENISASI NON-TERMAL TERHADAP KARAKTERISTIK SANTAN SEGAR SELAMA PENYIMPANAN

INTISARI

Santan adalah produk olahan kelapa yang berperan penting sebagai bahan masakan tradisional di Indonesia. Santan yang diproduksi secara konvensional memiliki umur simpan yang pendek dan penurunan kualitas yang cepat. Penelitian ini dilakukan untuk mengetahui karakteristik santan yang diberi perlakuan non-termal dalam upaya memperpanjang masa simpan produk. Teknologi non-termal yang digunakan adalah *High Pressure Processing* (HPP), *ultrasound*, dan *high speed homogenization*, dengan santan kontrol sebagai perbandingan. Parameter yang diamati adalah pH, kadar asam lemak bebas (ALB), kadar air, padatan total, kadar lemak, *Total Plate Count* (TPC) bakteri, dan keadaan (warna, bau, rasa). Penyimpanan dilakukan selama 7 hari pada suhu dingin kulkas dengan suhu 4°C. Hasil penelitian menunjukkan bahwa semakin lama waktu penyimpanan, pH semakin menurun, kadar ALB semakin meningkat, kadar air semakin menurun, padatan total semakin meningkat, kadar lemak semakin meningkat, TPC semakin meningkat, dan keadaan (warna, bau, rasa) menjadi tidak normal. Analisis data hasil pengujian menggunakan ANOVA berulang dan perbedaan antar kelompok dinilai dengan uji Benferroni. Perbedaan perlakuan mempengaruhi data hasil pengujian secara signifikan, terutama pH. Data hasil pengujian sampel HPP cenderung konsisten menunjukkan perlakuan HPP paling efektif dalam mempertahankan kualitas santan sesuai dengan persyaratan SNI. HPP dapat memperpanjang masa simpan santan selama 3 hari pada suhu dingin, lebih lama dibandingkan sampel lain. Proses homogenisasi non-termal bisa menjadi pilihan yang tepat untuk memperpanjang masa simpan dan mempertahankan kualitas dari santan segar.

Kata kunci: Karakteristik, Kelapa, Non-Termal, Santan, Umur Simpan

ANALYSIS OF THE EFFECT OF NON-THERMAL HOMOGENIZATION PROCESS ON THE CHARACTERISTICS OF FRESH COCONUT MILK DURING STORAGE

ABSTRACT

Coconut milk is a processed coconut product that plays an important role as an ingredient in traditional Indonesian cuisine. Conventionally produced coconut milk has a short shelf life and deteriorates quickly. This study was conducted to determine the characteristics of coconut milk treated with non-thermal methods to extend the shelf life of the product. The non-thermal technologies used were High Pressure Processing (HPP), ultrasound, and High Speed Homogenization, with control coconut milk as a comparison. The parameters observed were pH, free fatty acid (FFA) content, moisture content, total solids, fat content, Total Plate Count (TPC) of bacteria, and condition (color, odor, taste). Storage was carried out for 7 days at a cold refrigerator temperature of 4°C. The results showed that as the storage time longer, pH decreased, FFA content increased, water content decreased, total solids increased, fat content increased, bacterial TPC increased, and the conditions (color, smell, taste) became more abnormal. Data analysis used repeated ANOVA, and differences between groups were assessed using the Benferroni test. Treatment differences significantly affected test result data, particularly in terms of pH. Data from HPP sample testing consistently shows that HPP treatment is most effective in maintaining the quality of coconut milk. HPP can extend the shelf life of coconut milk for 3 days at cold temperatures, which is longer than other samples. At that time, the quality parameters of the coconut milk still met the standards. Non-thermal processing could be a good option for extending shelf life and maintaining the quality of coconut milk.

***Keywords**: Characteristic, Coconut, Coconut Milk, Non-Thermal, Shelf-Life*