

ANALISIS PERUBAHAN MUTU PRODUK MINUMAN FUNGSIONAL KOPI PURWACENG SELAMA PENYIMPANAN DAN PENDUGAAN UMUR SIMPANNYA

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INTISARI

Kesadaran masyarakat akan gaya hidup mengalami peningkatan. Hal tersebut menjadi dasar pembuatan minuman fungsional. Purwaceng sebagai tanaman asli Indonesia memiliki potensi nilai tambah sebagai minuman fungsional. Produk kopi purwaceng belum diketahui perubahan karakteristik mutu dan umur simpannya. Sebagai minuman fungsional yang diedarkan di pasar, konsumen wajib mengetahui umur simpannya. Umur simpan dapat digunakan sebagai evaluasi mutu lanjutan bagi pengembangan produk. Tujuan penelitian ini untuk mengetahui karakteristik dan perubahan mutu serta umur simpan produk kopi purwaceng menggunakan metode *Accelerated Shelf Life Testing*.

Karakteristik mutu dilakukan terhadap bahan baku dan produk selama penyimpanan. Karakteristik mutu bahan baku yang diuji meliputi warna, bau, kadar air, kadar abu, kadar lemak, kadar serat dan cemaran logam. Produk disimpan pada suhu refrigerator (4⁰C), suhu ruang (27⁰C) dan suhu ekstrim (40⁰C), diuji setiap 15 hari. Karakteristik mutu produk selama penyimpanan meliputi pH, kadar air, kadar abu, cemaran mikroba, serta organoleptik sesuai dengan SNI Kopi Gula Krimer dalam kemasan Nomor 778 tahun 2011. Pendugaan umur simpan dilakukan dengan metode *Accelerated Shelf Life Testing* dengan model Arrhenius menggunakan parameter kritis.

Hasil penelitian menunjukkan bahwa kadar air merupakan parameter kritis dengan nilai R² terbesar. Semakin tinggi suhu dan waktu penyimpanan kadar air mengalami peningkatan. Kadar abu serta pH produk cenderung tetap selama penyimpanan sedangkan organoleptik mengalami penurunan mutu. Cemaran mikroba mengalami peningkatan dan titik optimum kemudian turun kembali selama penyimpanan. Umur simpan produk kopi purwaceng adalah 36 bulan pada refrigerator (4⁰C), 18 bulan pada suhu ruang (27⁰C) dan 15 bulan pada suhu ekstrim (40⁰C).

Kata Kunci : ASLT, kopi purwaceng, karakteristik mutu, umur simpan

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THE ANALYSIS OF PURWACENG COFFEE PRODUCT QUALITY CHANGES AS FUNCTIONAL BEVERAGE DURING STORAGE AND ITS SHELF LIFE DETERMINATION

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ABSTRACT

The public awareness of a healthy lifestyle has increased. This is the basic case in making functional beverage. As an Indonesian native plant purwaceng has a value as a functional beverage. The changes of characteristic and shelf life of purwaceng coffee product have not yet known as well. As a functional beverage that circulated in the market, consumers must know the shelf life of the product. Shelf life can be used as an evaluation of the continued quality of product development. The purpose of this study was to determine the characteristics and quality changes and shelf life of purwaceng coffee product using the Accelerated shelf life testing method.

Quality characteristics are carried out on raw materials and product during storage. The characteristics of the raw materials tested include color, odor, water content, ash content, fat content, fiber content and metal contamination. Product is stored at refrigerator (4⁰C), room temperature (27⁰C) and extreme temperature (40⁰C) tested every 15 days. Product quality characteristic during storage include pH, water content, ash content, microbial contamination, and organoleptic in accordance with SNI of Sugar Cream Coffee in Package Number 778 in 2011. The estimation of shelf life is done by the Accelerated Shelf Life testing method with the Arrhenius model using critical parameter.

The result showed that water content is a critical parameter with the largest value of R². The higher the temperature and the longer the storage time, the higher the water content. The ash content and pH of the product tend to remain during storage, while organoleptic quality decreased. Microbial contamination increased and has its optimum point then falls back during storage. Shelf life of purwaceng coffee is 36 months in the refrigerator (4⁰C), 18 months at the room temperature (27⁰C) and 15 months at the extreme temperature (40⁰C).

Keywords : ASLT, purwaceng coffee, quality characteristic, shelf life

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