

RINGKASAN

Fruit leather melon merupakan produk pangan yang termasuk dalam kategori manisan kering dan terbuat dari pure buah melon dengan penambahan bahan tambahan lain. *Fruit leather* yang baik yaitu yang memiliki tekstur kenyal dan plastis sehingga mudah untuk digulung. Produk yang baik tidak hanya bermutu baik setelah diproduksi, tetapi juga bermutu baik ketika sampai di tangan konsumen. Oleh karena itu, perlu dilakukan analisis terkait dengan umur simpan produk *fruit leather* melon. Tujuan penelitian ini yaitu untuk mengetahui ada dan tidaknya pengaruh perlakuan suhu dan lama penyimpanan terhadap mutu kimia, mikrobiologi dan sensori *fruit leather* melon, serta menganalisis umur simpan *fruit leather* melon.

Penelitian ini menggunakan metode ASLT (*Accelerated Shelf Life Testing*) dengan persamaan Arrhenius. Parameter mutu yang diujikan meliputi parameter kimia (kadar air, gula total, vitamin C, dan total padatan terlarut), mikrobiologi (total mikroba) dan sensori (warna, aroma, rasa, tekstur dan kesukaan). Tahapan penelitian meliputi penelitian pendahuluan, penelitian utama yang meliputi pembuatan sampel dan pengujian mutu, dan analisis pendugaan umur simpan *fruit leather* melon. Perlakuan lama penyimpanan *fruit leather* melon yaitu 0 hari, 7 hari, 14 hari, 21 hari, dan 28 hari. Suhu penyimpanan yang digunakan yaitu 35°C, 45°C, dan 55°C.

Berdasarkan hasil penelitian, *fruit leather* melon memiliki kadar air 20,89%, gula total 23,74%, vitamin C 65,73 mg/100 g, dan total padatan terlarut 75,33°Brix. Total mikroba yang ditemukan pada *fruit leather* melon sejumlah $3,4 \times 10^3$ CFU/g. *Fruit leather* melon memiliki warna kuning, aroma khas melon, tekstur kenyal, dan rasa sedikit manis. Berdasarkan persamaan Arrhenius dengan parameter kritis kadar air dihasilkan umur simpan *fruit leather* melon adalah 92 hari pada suhu 35°C, 38 hari pada suhu 45°C, dan 17 hari pada suhu 55°C. Sementara itu, pada suhu ruang (27°C) *fruit leather* melon dapat disimpan selama 192 hari.

SUMMARY

Fruit leather melon is a food product that is included in the category of dry sweets and is made from melon puree with the addition of other additional ingredients. Good fruit leather has a chewy and plastic texture so that it is easy to roll. A good product is not only of good quality after being produced, but also of good quality when it reaches the consumer. Therefore, it is necessary to conduct an analysis related to the shelf life of fruit leather melon products. The purpose of this study was to determine whether or not there was an effect of temperature treatment and storage time on the physicochemical, microbiological and sensory quality of fruit leather melon, as well as to analyze the shelf life of fruit leather melon.

This study used the ASLT (Accelerated Shelf Life Testing) method with the Arrhenius equation. The quality parameters tested included physicochemical parameters (water content, total sugar, vitamin C, and total dissolved solids), microbiology (total microbes) and sensory (color, aroma, taste, texture and preference). The research stages included preliminary research, main research including sample making and quality testing, and analysis of fruit leather melon shelf life estimation. The storage time of fruit leather melon was 0 days, 7 days, 14 days, 21 days, and 28 days. The storage temperatures used were 35°C, 45°C, and 55°C.

Based on the research results, fruit leather melon has a water content of 20.89%, total sugar 23.74%, vitamin C 65.73 mg/100 g, and total dissolved solids 75.33°Brix. The total microbes found in fruit leather melon were 3.4×10^3 CFU/g. Fruit leather melon has a yellow color, a distinctive melon aroma, a chewy texture, and a slightly sweet taste. Based on the Arrhenius equation with critical parameters of water content, the shelf life of fruit leather melon was 92 days at a temperature of 35°C, 38 days at a temperature of 45°C, and 17 days at a temperature of 55°C. Meanwhile, at room temperature (27°C), fruit leather melon can be stored for up to 192 days.