EFFECT OF VARIATIONS OF GUAVA KLUTUK MIXTURE (*PSIDIUM GUAJAVA L.*) IN MAKING ICE CREAM ON PHYSICAL PROPERTIES, ORGANOLEPTIC PROPERTIES, AND FIBER CONTENT

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ABSTRACT

Background: Obesity is one of the nutritional problems that is still found in various places and various age groups**.** In Indonesia, as many as 28.7% are obese at the age of more than 18 years**.** The main factor causing obesity is the application of the wrong diet such as high fat low fiber. White guava has a fiber content per 100 g as much as 4.5 g, which serves to control overweight and obesity, improve digestion and prevent colon cancer, lower blood glucose levels, function as a prebiotic, and lower cholesterol levels in the blood. Guava klutuk can be used as a mixture of ice cream.

Research Objective: Produce high-fiber ice cream made from guava klutuk mixture which was accepted by panelists as an alternative snack to prevent obesity.

Research Methods: A type of purely experimental research with a complete randomized design. There were 4 treatments with a mixture of 0%, 12.5%, 15%, and 17.5% guava klutuk. Physical properties are analyzed descriptively. Organoleptic properties are analyzed with *the Wallis crucial* statistical test, if there are differences continued the *Mann Whitney* test. Food fiber content was analyzed descriptively and *the one-way anova* test, followed by *the Duncan* test if there were differences.

Research Results: Physical properties show that the more guava klutuk mixture in ice cream, the more yellowish-white the color, the more distinctive the aroma of guava klutuk, the taste remains sweet with typical guava klutuk, and the texture is softer, the melting resistance is longer, and *the overrun value is* lower. Organoleptic properties showed that the ice cream products most preferred by panelists in terms of color were ice cream treatment A with a variation of guava klutuk mixture of 0%, ice cream products in terms of aroma and taste were the most preferred treatment B with a variation of guava mixture klutuk 12.5%, and ice cream products in terms of texture the most preferred was treatment D with a variation of guava mixture klutuk 17.5%. Food fiber content, the more guava klutuk mixture, the food fiber content in ice cream increases. The highest fiber content in treatment D (17.5%).

Conclusion: There is an influence of variations in guava klutuk mixture on physical properties, organoleptic properties, and fiber content of guava klutuk ice cream.

Keywords: Ice cream, Guava klutuk, Physical Properties, Organoleptic Properties, and Fiber content

PENGARUH VARIASI CAMPURAN JAMBU KLUTUK (*PSIDIUM GUAJAVA L.*) PADA PEMBUATAN ES KRIM TERHADAP SIFAT FISIK, SIFAT ORGANOLEPTIK, DAN KADAR SERAT

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ABSTRAK

Latar Belakang: Obesitas merupakan salah satu masalah gizi yang masih banyak dijumpai diberbagai tempat dan berbagai kelompok usia**.** Di Indonesia sebanyak 28,7% mengalami obesitas di usia lebih dari 18 tahun**.** Faktor utama penyebab obesitas adalah penerapan pola makan yang salah seperti tinggi lemak rendah serat. Jambu biji putih memiliki kandungan serat per 100 g sebanyak 4,5 g, yang yang berfungsi untuk mengontrol kelebihan berat badan dan obesitas, memperbaiki pencernaan dan mencegah kanker usus besar, menurunkan kadar glukosa darah, berfungsi sebagai prebiotik, dan menurunkan kadar kolesterol dalam darah. Jambu klutuk dapat dimanfaatkan sebagai campuran es krim.
Tujuan Penelitian: Menghasilkan es krim tinggi serat berbahan dasar campuran jambu klutuk yang diterima panelis sebagai alternatif kudapan pencegah obesitas.
Metode Penelitian: Jenis penelitian eksperimental murni dengan rancangan acak lengkap. Terdapat 4 perlakuan dengan campuran jambu klutuk 0%, 12,5%, 15%, dan 17,5%. Sifat fisik dianalisis secara deskriptif. Sifat organoleptik dianalisis dengan uji statistik *kruskal Wallis*, apabila ada perbedaan dilanjutkan uji *Mann Whitney*. Kadar serat pangan dianalisis secara deskriptif dan uji *one way anova*, dilanjutkan uji *Duncan* apabila terdapat perbedaan.
Hasil Penelitian: Sifat fisik menunjukkan bahwa semakin banyak campuran jambu klutuk dalam es krim, semakin putih kekuningannya warnanya, semakin khas aroma jambu klutuk, rasanya tetap manis dengan khas jambu klutuk, dan teksturnya lebih lembut, daya tahan lelehnya lebih lama, dan nilai *overrunnya* lebih rendah. Sifat organoleptik menunjukkan bahwa produk es krim yang paling disukai oleh panelis dari segi warna adalah perlakuan es krim A dengan variasi campuran jambu klutuk 0%, produk es krim dari segi aroma dan rasa merupakan perawatan B yang paling disukai dengan variasi campuran jambu klutuk 12,5%, dan produk es krim dari segi tekstur yang paling disukai adalah perlakuan D dengan variasi campuran jambu klutuk 17,5%. Kandungan serat pangan, semakin banyak campuran jambu klutuk, maka kandungan serat pangan dalam es krim semakin meningkat. Kadar serat tertinggi pada perlakuan D (17,5%).
Kesimpulan: Adanya pengaruh variasi campuran jambu klutuk terhadap sifat fisik, sifat organoleptik, dan kadar serat terhadap es krim jambu klutuk.
Kata Kunci: Es krim, Jambu klutuk, Sifat Fisik, Sifat Organoleptik, dan Kadar serat