

Intisari

EFEK PENAMBAHAN BUBUK *Ulva lactuca* PADA SIFAT FISIK, FUNGSIONAL DAN SENSORIS ES KRIM COKELAT

Ulva lactuca makroalga golongan rumput laut hijau, memiliki fenol yang berperan sebagai antioksidan dan polisakarida ulvan berfungsi sebagai sumber serat sehingga dapat ditambahkan pada produk es krim cokelat sebagai pangan fungsional. Tujuan penelitian ini untuk mengetahui sifat fisik, fungsional, dan sensoris es krim cokelat yang difortifikasi bubuk *Ulva lactuca* dan mengetahui konsentrasi penambahan bubuk *Ulva lactuca* yang disukai oleh panelis. Penelitian ini dilakukan dua tahap, tahap pertama preparasi pembuatan bubuk *Ulva lactuca*, tahap kedua fortifikasi bubuk *Ulva lactuca* dalam es krim cokelat. Fortifikasi dalam es krim cokelat menggunakan Rancangan Acak Lengkap (RAL) satu faktor dengan lima perlakuan penambahan bubuk *Ulva lactuca* (0, 4, 8, 12, dan 16 gram) dalam formula es krim 586 gram. Hasil penelitian menunjukkan penambahan bubuk *Ulva lactuca* berpengaruh ($P < 0,05$) terhadap *overrun*, *melting rate*, *first dripping time*, kadar air, antioksidan dan tingkat kesukaan. Semakin banyak penambahan bubuk *Ulva lactuca* menurunkan *overrun*, kadar air dan tingkat kesukaan serta meningkatkan kualitas *melting rate*, *first dripping time*, antioksidan, dan kadar serat pada es krim cokelat *Ulva lactuca*. Penambahan konsentrasi bubuk *Ulva lactuca* meningkatkan kekerasan saat es krim disendok (*hardness in scoop*) dan sensasi berpasir (*sandiness*) di mulut sehingga menurunkan tingkat kelembutan (*smoothness*) dan *creaminess*. Es krim cokelat *Ulva lactuca* dengan penambahan bubuk *Ulva lactuca* sebanyak 4 gram paling disukai panelis dengan *overrun* (51,66%), *melting rate* (0,00132 ml/s), *first dripping time* (detik 1.103), kadar air (44,08%), antioksidan (68,67%) (RSA-DPPH) dan serat pangan (3,71%) (db).

Kata kunci : antioksidan, es krim cokelat, fortifikasi, serat, *Ulva lactuca*

Abstract

EFFECT *Ulva lactuca* POWDER INCORPORATION ON PHYSICAL PROPERTY, FUNCTIONAL AND SENSORY ATRIBUTES OF CHOCOLATE ICE CREAM

Ulva lactuca is a green seaweed, it contains phenol compounds that act as antioxidants and ulvan polysaccharide type which functioned as a source of fiber, fortified *Ulva lactuca* on chocolate ice cream enhanced nutrition and capacities as a functional food. The purpose of this study is to acknowledge the physical, functional, and sensory properties of chocolate ice cream fortified with *Ulva lactuca* powder and to determine the concentration of *Ulva lactuca* powder addition preferred by consumers. This study was conducted in two steps, step one is preparation of *Ulva lactuca* powder, step two is fortified *Ulva lactuca* powder on chocolate ice cream. Fortified on ice cream was design in one-factor Complete Randomized Design (CRD) with five *Ulva lactuca* powder addition treatments (0, 4, 8, 12, and 16 grams) on 586 grams ice cream formulas. The results showed the addition of *Ulva lactuca* powder has a significant effect ($P < 0.05$) on the overrun, melting rate, first dripping time, moisture content, antioxidant and favorability level. Increasing amount of *Ulva lactuca* powder will decrease overrun, the moisture content and costumer preference. It also improve the quality of melting rate, first dripping time, antioxidants, and dietary fiber. The addition *Ulva lactuca* powder concentration can increase hardness in scoop and sandiness, this leads to a decrease of smoothness and creaminess. Ice cream chocolate with addition of *Ulva lactuca* powder 4 grams is the most favorable, has a overrun 51.66%, melting rate 0.00132 ml/s, first dripping time (1.103 second), moisture content 44.08%, antioxidant (68.67%) (RSA-DPPH) and dietary fiber (3,71%) (db).

Keywords : antioxidant, chocolate *ice cream*, fiber, fortification, *Ulva lactuca*