

Intisari

PENGARUH PENAMBAHAN ANGKAK PADA ES KRIM COKELAT *Arthrospira Platensis*

Fortifikasi *Arthrospira platensis* pada produk pangan sudah banyak dilakukan, salah satunya es krim. Pembuatan rasa cokelat dilakukan dengan menambahkan kakao bubuk dan lemak kakao, akan tetapi menghasilkan warna hijau gelap yang tidak menarik, sehingga perlu ditambahkan pewarna merah alami yang dapat berinteraksi dengan warna hijau membentuk warna cokelat. Angkak adalah sumber pewarna merah alami dan dapat ditambahkan ke produk pangan. Penelitian ini dilakukan untuk mengetahui pengaruh penambahan angkak sebagai sumber pewarna merah alami pada es krim cokelat *Arthrospira platensis*. Rancangan penelitian yang digunakan adalah Rancangan Acak Lengkap (RAL) 5 perlakuan (1 perlakuan tanpa menggunakan angkak sebagai kontrol dan 4 perlakuan menggunakan angkak (30 gram dan 60 gram) dengan perbedaan lama waktu perendaman (10 menit dan 15 menit)). Karakteristik es krim cokelat *Arthrospira platensis* dianalisis secara fisik (*overrun*, *melting rate*, stabilitas emulsi, dan warna), kimiawi (pH dan antioksidan (RSA-DPPH)), evaluasi sensoris meliputi uji hedonik dan TDS (*Temporal Dominance of Sensation*), dan minat beli. Analisis data parametrik menggunakan uji *One Way Anova* 95% dan uji *Tukey*, sedangkan data nonparametrik dianalisis menggunakan uji *Kruskal Wallis*. Hasil penelitian menunjukkan penambahan angkak sebagai sumber pewarna merah alami es krim cokelat *Arthrospira platensis* tidak mempengaruhi hasil uji *overrun*, *melting rate*, dan stabilitas emulsi ($p > 0,05$). Penambahan angkak sebagai sumber pewarna merah alami es krim cokelat *Arthrospira platensis* menyebabkan es krim bewarna cokelat gelap, hasil chromameter menunjukkan nilai L semakin rendah (gelap), nilai a semakin positif yang menunjukkan objek semakin merah, dan semakin positif nilai b menunjukkan semakin kuning es krim yang dianalisis. Antioksidan es krim cokelat *Arthrospira platensis* berkisar 71 - 76%. Hasil TDS menunjukkan perlakuan penambahan angkak menguatkan rasa cokelat jika dibandingkan dengan kontrol. Angkak dapat meningkatkan warna cokelat tua pada produk dan meningkatkan rasa cokelat pada es krim serta meningkatkan rerata tingkat penerimaan konsumen terhadap es krim cokelat *Arthrospira platensis*. Formula terbaik adalah penambahan angkak sebanyak 60 gram dan lama waktu perendaman selama 15 menit.

Kata Kunci: *Arthrospira platensis*, es krim, fortifikasi, pewarna merah alami, *Temporal Dominance of Sensation*.

Abstract

THE EFFECT OF ADDING RED YEAST RICE ON *Arthrospira platensis* CHOCOLATE ICE CREAM

Fortified Arthrospira platensis has been widely in food products also ice cream. For making chocolate flavor it was added cocoa powder and cocoa butter, unfortunately the impact in the color to be unattractive dark green color, thus it needs to add red dye which can interact with green dye to create brown color. Red yeast rice is a source of natural red dye and can add into food products. This research was conducted to determine the effect of adding red yeast rice as a source of natural red dye in *Arthrospira platensis* chocolate ice cream. The research was designed in Completely Randomized Design (CRD) using 5 treatments (1 treatment without using red yeast rice as a control and 4 treatments using red yeast rice (30 and 60 grams) with differences in the length of duration soaking (10 and 15 minutes)). The properties of *Arthrospira platensis* chocolate ice cream were analyzed in physical (overrun, melting rate, emulsion stability, and color), chemical (pH and antioxidant (RSA-DPPH)), sensory evaluation in hedonic test and Temporal Dominance of Sensation (TDS), also buying interest. Parametric data analysis used One Way Anova 95% test and Tukey test, while nonparametric data were analyzed using the Kruskal Wallis test. The results showed that the addition of red yeast rice as a source of natural red dye for *Arthrospira platensis* chocolate ice cream did not affect in the overrun test, melting rate, and emulsion stability ($p > 0,05$). The addition of red yeast rice as a source of natural red dye in *Arthrospira platensis* chocolate ice cream caused dark brown colored ice cream, chromameter shows that the L value is lower (darker), the a value is more positive, it indicates the object is getting redden and the more positive b value indicates that ice cream are being yellowing. Antioxidants of *Arthrospira platensis* chocolate ice cream ranged from 71 - 76%. TDS appeared which the treatments was chocolate tastier than control. Red yeast rice enhanced a dark brown colored in product, also raised in the chocolate tasted of ice cream and increased the average level of consumer acceptance of *Arthrospira platensis* chocolate ice cream. The best formula is the addition of 60 grams of red yeast rice and a long soaking time for 15 minutes.

Key Words: *Arthrospira platensis*, fortification, ice cream, natural red dye, Temporal Dominance of Sensation.