

Pengembangan Formulasi Emulsi Red Palm Oil (RPO) = Development of Red Palm Oil Emulsion Formulation

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Abstrak

Red palm oil (RPO) mengandung antioksidan yang larut dalam lemak seperti karotenoid (dan -karoten, likopen), vitamin E (dalam bentuk , , dan tokotrienol dan tokoferol), dan ubiquinon. Red palm oil (RPO) dapat digunakan sebagai upaya mencegah stunting dan kekurangan gizi karena nilai gizi yang jauh lebih tinggi daripada minyak goreng yang beredar di pasaran. Akan tetapi, belum terdapat banyak studi mengenai pemanfaatan red palm oil (RPO) dalam hal tersebut. Penelitian ini bertujuan untuk memperoleh formula emulsi dari red palm oil (RPO). Sediaan emulsi red palm oil (RPO) dibuat menggunakan 5% sukrosa ester palmitat untuk mengemulsifikasi 5% (F1), 10% (F2), dan 15% (F3) red palm oil (RPO) dengan madu untuk menambah kestabilan, kemudian dilakukan karakterisasi fisik untuk mengetahui stabilitas emulsi selama 12 minggu. Hasil menunjukkan bahwa selama 12 minggu ketiga formula emulsi stabil berdasarkan parameter organoleptis, pH, homogenitas viskositas, ukuran partikel, dan zeta potensial. Hasil uji hedonis pada 30 orang responden menunjukkan bahwa formula F1 paling disukai para responden. Dengan demikian, dalam penelitian ini formula F1 menghasilkan hasil uji yang paling baik.

.....Red palm oil (RPO) contains fat-soluble antioxidants such as carotenoids (\hat{I}^{\pm} and \hat{I}^2 -carotene, lycopene), Vitamin E (in the form of \hat{I}^{\pm} , \hat{I}^2 , and \hat{I}^{\prime} tocotrienols and tocopherols), and ubiquinone. Red palm oil (RPO) can be used as an effort to prevent stunting and nutritional deficiencies due to its significantly higher nutritional value compared to cooking oils available in the market. However, there haven't been many studies regarding the utilization of red palm oil (RPO) in this matter. This study aims to obtain an emulsion formula from red palm oil (RPO). The red palm oil (RPO) emulsion preparations were made using 5% sucrose ester palmitate to emulsify 5% (F1), 10% (F2), and 15% (F3) red palm oil (RPO) with honey to enhance stability. Subsequently, a physical characterization was conducted to determine the emulsion's stability over a period of 12 weeks. The results showed that all three emulsion formulas remained stable over the 12-week period based on organoleptic parameters, pH, viscosity homogeneity, particle size, and zeta potential. Hedonic testing results from 30 respondents indicated that Formula F1 was the most preferred by the respondents. Therefore, in this study, Formula F1 yielded the best test results.