PENGARUH *COCOA BUTTER REPLACER* DARI CAMPURAN OLEIN SAWIT, STEARIN SAWIT, MONO- DAN DIASILGLISEROL TERHADAP KARAKTERISTIK FISIK *DARK CHOCOLATE*

INTISARI

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Cocoa butter merupakan lemak nabati yang digunakan sebagai bahan baku penting dalam pembuatan cokelat yang berkontribusi terhadap sifat tekstural dan sensori produk. Permintaan *cocoa butter* cukup tinggi namun hasil produksi rendah, sehingga harga *cocoa butter* lebih mahal jika dibandingkan dengan lemak lainnya. Penelitian ini dilakukan untuk mendapatkan *cocoa butter replacer* terbaik dari campuran stearin sawit, olein sawit, mono- dan diasilgliserol sebagai pengganti *cocoa butter* dan akan diaplikasikan pada produk *dark chocolate*.

Stearin sawit, olein sawit, mono- dan diasilgliserol dicampur dengan pencampuran langsung. Konsentrasi pencampuran terbaik ditentukan berdasarkan hasil karakteristik produk yang menyerupai karakteristik *cocoa butter* dengan proses pencampuran langsung. *Cocoa butter replacer* terpilih akan diaplikasikan dalam pembuatan *dark chocolate* dengan substitusi 0% CBR, 5% CBR, 15% CBR, dan 25% CBR serta akan dievaluasi pengaruh substitusi tersebut terhadap karakteristik fisik titik leleh, kekerasan, kemengkilapan, warna, indeks keputihan, dan *fat bloom.*

Cocoa butter replacer yang memiliki karakteristik menyerupai *cocoa butter* yaitu pencampuran 15% MAGDAG komersial, 34% stearin sawit, dan 51% olein sawit dalam 100 gram total campuran dengan nilai *slip melting point* 55,0±0,42℃, *melting point* 56,38±0,69℃, kekerasan 31,03±0,55N serta memiliki proporsi asil gliserol sebesar 6,24±2,28 %MAG, 16,06±5,20 %DAG, dan 77,71±7,28 %TAG. Substitusi lemak kakao dengan 5% CBR tidak berbeda signifikan terhadap kontrol dalam karakteristik *slip melting point, melting point,* L*, a*, b*, kekerasan, dan kemengkilapan. Substitusi lemak kakao dengan 15% CBR tidak berbeda signifikan terhadap kontrol dalam karakteristik *slip melting poin*, a*, b*, kekerasan, dan kemengkilapan.Substitusi lemak kakao dengan 25% tidak berbeda signifikan terhadap kontrol dalam karakteristik a*.

Kata kunci : *cocoa butter*, *cocoa butter replacer*, mono- dan diasilgliserol

THE EFFECT OF COCOA BUTTER REPLACER FROM MIXED OF PALM OLEIN, PALM STEARIN, MONO- AND DIACYLGLYCEROL ON PHYSICAL CHARACTERISTICS OF DARK CHOCOLATE

ABSTRACT

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Cocoa butter is vegetable fat that used as an important raw material in chocolate making which contributes to the textural and sensory properties of the product. The demand of cocoa butter is quite high but the production is low, so the price of cocoa butter is more expensive than the other fats. This research was conducted to obtain cocoa butter replacer from a mixture of palm stearin, palm olein, mono- and diacylglycerol as a substitute for cocoa butter and will be applied to dark chocolate products.

In this study, palm stearin, palm olein, mono- and diacylglycerol were mixed with binary blending. Certain mixing concentrations were determined which had the characteristics resembling of cocoa butter. Selected cocoa butter replacer will be applied in the manufacture of dark chocolate with the substitution of 0% CBR, 5% CBR, 15% CBR, and 25% CBR and will be evaluated for the effect of the substitution on the physical characteristics of the melting point, hardnes, glowsiness, color, whiteness indeks, and fat bloom.

Cocoa butter replacer which has characteristics resembling cocoa butter, namely mixing of 15% commercial MAGDAG, 34% palm stearin, and 51% palm olein in 100 grams of total mixture with slip melting point value of 55,00±0,42℃, melting point 56,38±0,69℃, hardness 31,03±0,55N, and has an acyl glycerol proportion of 6,24±2,28 %MAG, 16,06±5,20 %DAG, and 77,71±7,28 %TAG. The substitution of cocoa butter with 5% CBR was not significantly different from the control in charcteristics slip melting point, melting point, L*, a*, b*, hardness, and glowsiness. The substitution of cocoa butter with 15% CBR was not significantly different from the control in the slip melting point, a*, b*, hardness, and glowsiness characteristics. The substitution of cocoa butter with 25% CBR was not significantly different from the control in the characteristics a*.

Keywords : cocoa butter, cocoa butter replacer, mono- and diacylglicerol