



## **KARAKTERISTIK FISIKO-KIMIA ES KRIM DENGAN LEVEL TEPUNG MOKAF SEBAGAI SUBSTITUSI *WHIPPED CREAM***

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### **INTISARI**

Es krim merupakan salah satu produk olahan susu dengan kalori tinggi yang berasal dari lemak dan gula. Tepung mokaf merupakan tepung dengan kandungan lemak yang rendah dan mengandung serat. Tujuan penelitian ini untuk mengetahui karakteristik fisiko-kimia, sensori es krim dengan level tepung mokaf sebagai substitusi *whipped cream*. Penelitian ini terdiri dari level mokaf 0; 5 dan 10% (b/b) sebagai substitusi *whipped cream*. Parameter kualitas es krim yang dianalisis meliputi kualitas fisik (*overrun*, viskositas, titik leleh), kimia (kadar lemak, serat kasar dan pH), dan sensoris (tekstur, rasa, warna, aroma). Data hasil penelitian diuji secara statistik menggunakan analisis variansi pola searah dan dilanjutkan dengan *Duncan's New Multiple Range Test* (DMRT). Hasil penelitian menunjukkan bahwa level tepung mokaf sebagai substitusi *whipped cream* berpengaruh signifikan ( $p < 0,05$ ) terhadap kualitas fisik yaitu *overrun*, viskositas, waktu leleh, kadar lemak, serat kasar dan sensoris tetapi tidak berpengaruh terhadap kualitas kimia kadar air dan pH. Rerata es krim dengan substitusi mokaf 0%; 5%; 10% berturut-turut mempunyai waktu leleh 57,0 ; 63,0 dan 68,33 menit, *overrun* 48,12; 42,77; 24,89%, viskositas 778,67 cP ; 5126,33 cP ; 26.243,33 cP, pH 6,88; 6,84; 6,68, kadar air 57,17; 58,68; 55,35%, kadar lemak 11,01; 10,58; 9,95%, dan serat kasar 6,38; 7,42, 7,84%, dan nilai sensori 4,23; 4,18; 4,66 (4=suka). Kesimpulannya adalah level tepung mokaf sebagai substitusi *whipped cream* tidak mempengaruhi kualitas kimia (kadar air, pH), sensoris dan dapat meningkatkan serat kasar dan tekstur es krim

Kata kunci: Es krim, mokaf, Kualitas fisik, Kualitas kimia, Kualitas sensoris, Serat kasar



## **THE CHARACTERISTIC OF ICE CREAM WITH LEVEL OF MOCAF AS *WHIPPED CREAM* SUBSTITUTION**

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### **ABSTRACT**

Ice cream is one of the processed dairy products with high calories so that some groups of people avoid consuming it. Mocaf flour is flour with low fat content and contains fiber. The aim of this study was to determine the physico-chemical characteristics, sensory characteristics of ice cream with varying levels of mocaf flour as a substitute for *whipped cream*. This study consists of variations in mocaf levels 0; 5 and 10% as a substitute for *whipped cream*. Parameters of ice cream quality analyzed included physical (overrun, viscosity, melting point), chemical (fat content, crude fiber and pH), and sensory (texture, taste, color, aroma). The research data were tested statistically using one-way pattern analysis of variance and continued with Duncan's New Multiple Range Test (DMRT). The results showed that variations in the level of mocaf flour as a substitute for *whipped cream* had a significant effect ( $p < 0.05$ ) on physical quality, namely overrun, viscosity, melting time, fat content, crude fiber and sensory, but had no effect on chemical quality, water content and pH. Average ice cream with mocaf substitution 0%; 5%; 10% respectively has a melting time of 57.0 ; 63.0 and 68.33 minutes, overrun 48.12; 42.77; 24.89%, viscosity 778.67 cP ; 5126.33 cP ; 26,243.33 cP, pH 6.88; 6.84; 6.68, water content 57.17; 58.68; 55.35%, fat content 11.01; 10.58; 9.95%, and crude fiber 6.38; 7.42, 7.84%, and 4.23 sensory values; 4.18; 4.66 (4=likes). The conclusion is that variations in the level of mocaf flour as a substitute for *whipped cream* do not affect chemical quality (moisture content, pH), sensory and can increase crude fiber and texture of ice cream.

Keywords: Ice cream, Mocaf, Physical quality, Chemical quality, Sensory quality, Crude Fiber