

ABSTRACT

THE EFFECT BY USING RED PALM OIL AND VARIOUS STABILIZER TO THE CHARACTERISTIC AND CAROTENOID TOTAL OF ICE CREAM

By

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Ice cream is a kind of semi-solid food made from a mixture of milk, fat, sugar, with or without other food additives. Fat make ice cream has a soft texture. Milk fat can be replaced with vegetable oil such as Red Palm Oil (RPO). The purposes of this research are to determine the effect of RPO and milk fat formulation as well as the type of stabilizer on the ice cream characteristics and carotenoid total and find out the interaction between them. The research method was a Complete Randomized Block Design (CRBD) in factorial with 3 replications, consists of two factors, RPO and milk fat formulation (25:75), (50:50), (75:25), (100:0), and type of stabilizer (gelatin and CMC). The data was processed furtherly by orthogonal comparison. The research results showed that RPO and milk fat formulations affect the ice cream characteristics and carotenoid total significantly, while the type of stabilizer only affect the characteristics of the ice cream. Interactions between RPO and milk fat formulations compared to the type of stabilizer only affect the characteristics of ice cream but did not affect the carotenoid total. The best product is an ice cream with RPO and milk fat formulations 25:75 and CMC as stabilizer with a characteristic melting speed (11,28 minutes), overrun (10,35 %), total solids (22,96 %), carotenoid total (13,405ppm), yellowish

white color (1,9), normal taste (3,45), normal aroma (3,68), soft texture (2,97), and the preferred overall acceptance (2,833) .

Keywords : ice cream, red palm oil, stabilizer