

**CANDLENUT MILK AND CREAM AS THE ALTERNATIVE INGREDIENTS
IN ICE CREAM PRODUCTION**

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STATEMENT BY THE AUTHOR

I hereby declare that this submission is my own work and to the best of my knowledge, it contains no material previously published or written by another person, nor material which to a substantial extent has been accepted for the award of any other degree or diploma at any educational institution, except where due acknowledgement is made in the thesis.

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ABSTRACT

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Candlenut, with its high fat content, is a potential alternative ingredients for dairy milk and dairy cream which further could be processed into candlenut ice cream. The fat major constituent of candlenut is UFA (unsaturated fatty acid), compared to dairy product which higher in SFA (saturated fatty acid) thus, when processed into ice cream may result in undesirable texture. The texture of candlenut ice cream were improved by the stabilizer, the stabilizer selection in candlenut ice cream formulation resulted in selected formula using 49.7% candlenut cream, 29.8% of candlenut milk, 19.9% of sugar and 0.55% stabilizer which has score 7 (like moderately) overall acceptance score. Iodine value of the selected formula of candlenut ice cream higher ($21.56 \pm 0,6$) compared to dairy ice cream (4.89 ± 0.13). The selected formula of candlenut ice cream also passed the Indonesian National Standard (SNI) in fat, sugar, protein content, total soluble solid and total plate count spoilage aspects. As the most important concern, saponin content in candlenut kernel have negative effect in human body, daily intake limit of saponin is 10-200 mg/g daily. The selected formula of candlenut ice cream saponin content still in the range of daily intake limit of saponin.

Keywords: Candlenut Ice Cream, Candlenut, Unsaturated Fatty Acid, Saponin, Omega-3.



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DEDICATION

This thesis is dedicated to my family and all of my friends who have supported me all the way since the beginning of my studies.



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