

## ABSTRACT

Research Title : Production of Ice-cream from Coconut Sugar  
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The study of ice-cream product development, made of coconut milk is aimed to increase the use of non dairy milk produced by coconut farmers. Moreover, this project has also developed the new coconut milk ice-cream formulation by analysing the amount of coconut milk and coconut sugar mixing in the production processes. The CRD experimental methodology (Completely Randomized Design) was conducted in this research, it studies the effects of one primary factor without the need to take other nuisance variables into account. According to this technique, the result shows that 50% of coconut milk is best amount fit with the total ingredients. The proportion of caster sugar and coconut sugar is 50:50 for the best yielding of high quality coconut milk. The formulation of coconut milk ice-cream consist of : 50% of coconut milk, 33.5% of coconut water, 6% of caster sugar, 6% of coconut sugar, 4% of skim milk, 0.4% of stabilizer and 0.1% of emulsifier. The viscous value before blending or churning is 45.10 cP. The percentage of overrun is 16.52. The value of  $L^* a^* b^*$  of ice-cream equals 89.10 0.16 and 10.86 as order. The hardness value of ice-cream is 37.48 N. The melting rate for the first 25 minutes is very low, until 30-35 minutes pass it starts melting a little bit. When comes to 40 minutes or beyond, its melting rate keeps rising until 60 minutes pass, the total number of microorganism becomes 330 cfu/gram and MPN coliform is less than 3. There are not yeast or fungi found in ice-cream and nether nor *E.coli*. According to the survey, The overall linking of this ice-cream product is in the moderate scale.