

Wararat Sanon 2009: Development of Reduced Calorie Thai Styled Egg Custard and Fatty acid Proportion Improvement with Sucralose and Cereal Cream. Master of Science (Home Economics), Major Field: Home Economics, Department of Home Economics. Thesis Advisor: Associate Professor Tassanee Limsuwan, Ph.D. 119 pages.

The objectives of this research were to develop the reduced calorie Thai styled egg custard by using sucralose and to improve its fatty acid proportion with cereal cream. Results showed that the substitution of sucralose at 30, 40 and 50% of coconut sugar and the substitution of cereal at 75 and 100% of coconut cream had no significant difference in sensory evaluation with $p\text{-value} > 0.05$. Egg custard with 40% sucralose and 75% cereal cream received the highest score of sensory evaluation and was chosen for consumer acceptability test. From the overall liking test using 9-point hedonic scale, a hundred consumers rated the products as like moderately to like very much (7.56–8.14) and 100% of consumers accepted the product. Ninety-three percent of consumers indicated their willingness to buy the developed product. Hardness, adhesive force and cohesiveness of the developed product were 2,501.16 g., -152.56 g:mg. and 0.16, respectively.

As for the nutritive value, the content of calories, total fat, total carbohydrate, total sugar and saturated fatty acid of the developed product were lower than those of the original product by 27.52, 34.27, 24.99, 35.51 and 57.73%, respectively. Monounsaturated fatty acid, polyunsaturated fatty acid and total protein of the developed product increased by 27.76, 271.70 and 11.13%, respectively when compared to those of the original product. The cost per piece of original product was 3.40 baht whereas that of the developed Thai styled egg custard by using sucralose and cereal cream was 6.50 baht

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Thesis Advisor's signature

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