

# **DEVELOPMENT OF CAKE BY USING RICE FLOUR AND SWEET POTATO FLOUR**

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## ABSTRACT

Development of cake by using rice flour and sweet potato flour

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The sweet potato (*Ipomoea batatas*) is a large, starchy, sweet tasting tuberous roots. Besides simple starches, sweet potatoes are rich in complex carbohydrates, dietary fiber, beta carotene (a vitamin A equivalent nutrient), vitamin C and vitamin B<sub>6</sub>. Pink, yellow and green varieties have high content of carotene and the precursor of vitamin A. Cake is product obtain from a batter containing essentially wheat flour, sugar, egg, shortening and that can be produced by incorporating the sweet potato flour with the rice flour to improve the nutrient content of the cake. The develop cake by using rice flour and sweet potato flour to maximize the nutrient content of the cake. Cake was prepared by changing sweet potato variety (CARI-9 and BW-8) and flour percentage w/w (15 %, 30 % and 45 %). Optimum sweet potato flour percentage was selected by a sensory evaluation using 30 untrained panellists. A five point hedonic scale was use to assess sensory attributes; appearance, colour, smell, taste and overall acceptability. Data obtained from Sensory were analyzed by Fried man rank test in MINITAB. According to the results CARI-9 15%, BW-8 30% wheat flour incorporated cake had higher ( $P<0.005$ ) consumer preference in appearance, colour, smell, taste and overall acceptability ( $P<0.005$ ) compared to other two treatments.

Fat, protein, moisture content and carbohydrate content, beata carotene value was analyzed by proximate analysis. In addition Yeast and Mould count and Total plate count test was done as microbial assessments. Shelf life determination was done by yeast and mould, total plate count at one week of interval for 60 days. Cake sample which had different sweet potato variety; CARI-9 and BW-8 and flour percentage; 15% and 30% sweet potato flour incorporated cake had highest overall acceptability among three samples. Therefore with the 15% and 30% sweet potato flour, it gives best sensory characters to the cake. According to the sensory evaluation results, cake sample with 15% CARI-9 Sweet Potato flour and 30% BW-8 Sweet Potato flour can be stored for 60 days under room temperature without any deterioration and no growth of yeast and mould. This product has a shelf life of 60 days under room temperature. Considering the nutritional quality of the product it had highest beta carotene and carbohydrate content and low content of sugar.

Key words: Cake, Sweet Potato, CARI-9 variety, BW-8 variety