## Formulation of Sponge Cake with Red Dragon Fruit Peel Flour Substitution as a Functional Food Source of Fiber

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## ABSTRACT

Prevention of degenerative diseases can be done in various ways, one of which is by increasing food intake of food fiber sources (Kemenkes RI, 2018). One of the efforts to fulfill food fiber is by consuming fiber source foods such as red dragon fruit. This study aims to determine food fiber content, expandability, organoleptic properties, determine claims, determine the best treatment, determine nutritional composition, and nutritional value information. The research design used was a completely randomized design (CRD) with 5 treatments and 5 replicates. The results showed that the highest sponge cake food fiber content was in the P5 treatment (45% wheat flour: 55% red dragon fruit peel flour) of 5.52 g/100 grams, while the sponge cake with the highest growth power was in the P1 treatment (65% wheat flour: 45% red dragon fruit peel flour). Based on data analysis, the results of the fiber content test using Kruskal-Wallis and the sponginess test using Anova showed a significant difference marked with a P value of 0.000 (sig. < 0.05) and 0.001 (sig. < 0.05) in each treatment, respectively. Substitution of red dragon fruit peel flour affects the organoleptic properties (color, aroma, taste and texture) of sponge cake. The best treatment of sponge cake is treatment P1 (65% wheat flour: 45% red dragon fruit peel flour) which has a dietary fiber content of 3.43 mg/100 grams with characteristics of red color with taste.

Keywords : Fiber, sponge cake, red dragon fruit peel flour.