

**Steamed Sponge Cake Addition of Red Dragon Fruit Skin Extract As
a High Antioxidant Snack
for Patients with Type 2 Diabetes Mellitus**

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ABSTRACT

Type 2 diabetes mellitus is a disease characterized by the occurrence of hyperglycemia and metabolic disorders associated with a deficiency of insulin function or secretion which is characterized by fasting blood sugar levels > 126 mg/dL and current tests > 200 mg/dL. One alternative snack for people with type 2 diabetes mellitus is steamed sponge cake with the addition of red dragon fruit peel extract which is high in antioxidants. The main function of antioxidants is related to increased sensitivity to insulin. The research design used was Completely Randomized Design (CRD). Determination of the formulation in this study by adding dragon fruit peel extract 10 g, 20 g, 30 g, 40 g, 50 g, 60 g and each treatment was repeated 4 times. The analysis used is the content of antioxidants, swellability, organoleptic, and proximate in the best treatment. The results showed that the addition of steamed sponge cake with dragon fruit peel extract had a significant effect on antioxidant activity, level of swellability, hedonic quality tests on color, taste, aroma and texture as well as hedonic tests on color, taste, aroma and texture. However, it has no significant effect on the hedonic quality of the typical egg aroma. The best treatment was steamed sponge cake with the addition of 20 g of dragon fruit peel extract, with the characteristics of having antioxidant activity content of 30.685%, pink color tends to be weak, sweet taste tends to be weak, milk aroma tends to be weak, and texture tends to expand. Each parameter of color, taste, aroma, and texture from all treatments has the same preference, which tends to be favored by panelists. Consuming 1 piece (74 g) of steamed dragon fruit cake can meet the total energy needs of 9%, 8% protein, 1,5% fat, 12% carbohydrates and 16% dietary fiber based on %AKG.

Keywords: Steamed cake, Type 2 Diabetes Mellitus, Dragon Fruit Skin Extract