

Making Muffins Substitution of Sorghum Flour as a Containing Fiber Stuffed Food for People with Diabetes Mellitus. Ir. Heri Warsito, MP

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ABSTRACT

Diabetes mellitus is a type of metabolic disease characterized by hyperglycemia caused by abnormalities in insulin secretion, insulin action or both. Diabetes mellitus is a serious disease characterized by high blood sugar levels and is called the silent killer because it can affect all vital organs in the body and cause other diseases, namely vision problems, kidney disease, stroke, wounds that are difficult to heal and rot and are not uncommon for diabetes sufferers. mellitus undergoes amputation if it is severe. The importance of paying attention to the habit of consuming foods with a low glycemic index and high fiber can have a good impact on the body. This research aims to develop a high fiber product as a snack, namely a muffin substitute for sorghum flour. This study used a Randomized Block Design (RBD) with 6 treatments (10%, 20%, 30%, 40%, 50% and 60%) and 4 repetitions. Based on the research results, the fiber content was significantly different between each treatment. The best treated muffin is P4 (60% wheat flour and 40% sorghum flour) with a typical astringent taste of sorghum, rather strong sorghum, a brownish yellow color, a slightly strong typical sorghum aroma, and a slightly hard texture. The best treatment has nutritional content per 100 grams, namely energy 314.43 kcal, protein content 8.43%, fat content 15.70%, carbohydrate content 34.93%, ash content 0.92%, water content 40.10%, and food fiber content of 2.92% (not including high fiber content). Based on the glycemic index test, muffins have an IG value of 53.14 and are included in the low glycemic index category.

Keywords: *Diabetes Mellitus, Dietary Fiber, Sorghum Flour*