

Making Cookies Substitution of Sorghum Flour as a Source of Fiber for People with Diabetes Mellitus. Ir. Heri Warsito, M.P.

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ABSTRACT

Diabetes mellitus or what is often called diabetes is a disease caused by a chronic disorder which is characterized by the presence of hyperglycemia or increased blood glucose due to disturbances in the body's glucose metabolism. Diet is one of the causes of diabetes mellitus. Increased blood sugar levels are caused by consuming foods that contain high fat, carbohydrates and sugar, and less fiber intake. Efforts to lower blood glucose levels by consuming foods high in fiber and low on the glycemic index such as sorghum flour. This research aims to develop high-fiber products as a snack, namely in the form of cookies substitute for sorghum flour. This study used a randomized block design (RBD) with 6 treatments (0%, 20%, 40%, 60%, 80%, and 100%) and 4 replications. Based on the research results, the fiber content was significantly different for each treatment. Cookies the best treatment was P3 (40% wheat flour and 60% sorghum flour) with a rather strong astringent taste typical of sorghum, dark cream color, weak sorghum characteristic aroma and crunchy texture. The best treatment had nutrient content per 100 gram namely energy 521.70 kcal, protein content 9.41%, fat content 31.90%, carbohydrate content 49.21%, ash content 0.83%, moisture content 8.62%, and 3.63% food fiber (including sources of fiber). Based on the glycemic index test cookies has a GI value of 52.70 and belongs to the low glycemic index category.

Keywords: Diabetes Mellitus, Dietary Fiber, Sorghum Flour