MAKING FLUID BOLU YAM FLOUR SUBSTITUTION (*Dioscorea alata L.*) AS A LOW DISEASE FOOD GLICEMIC INDEX FOR MELLITUS TYPE 2 PATIENTS

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ABSTRACT

Diabetes mellitus type 2 is a degenerative disease that often occurs due to changes in lifestyle and diet. Diabetes mellitus is associated with blood sugar levels and insulin deficiency. Food that has a low glycemic index level can improve insulin sensitivity and decrease the rate of glucose absorption, so it is useful in controlling blood glucose for people with diabetes mellitus. This study aims to develop a low glycemic index snack food product in the form of steamed sponge food products with uwi flour substitutes for diabetes mellitus sufferers. The experimental design used in this study was a completely randomized design (CRD) with 6 formulations with 4 repetitions of the treatment of uwi flour: wheat flour, namely 90%: 10%, 80%: 20%, 70%: 30%, 60%: 40 %, 50%: 50%, and 40%: 60%. Based on the results of the research, the best treatment of steamed sponge cake P6 (40% uwi flour: 60% wheat flour) from the results of the organoleptic test with a scale of 1-10 and the rating category of dislike to like, the average value of the likeness of the color is 6.30, taste 5,51, aroma 6.35, texture 6.63. The results of the chemical analysis of steamed sponge from the best treatment have nutritional content in the form of energy 284.17 kcal, protein content 10.47%, fat content 12.41%, carbohydrate content 32.65%, ash 0.94%, water 43.51% and 2.41% dietary fiber. Physical test results in the form of growth power 127.67%. The glycemic index value is obtained by dividing the area under the test food curve by the standard food. Based on the results of the calculation of the glycemic index value, it can be seen that it is 52.15 and is included in the low glycemic index category.

Keywords: Glycemic Index, Type 2 Diabetes Mellitus, Yam Flour.