Formulation of Mung Bean Powder and Soy Bean Powder Soft Cookies as Iron-Containing Snack Food

Masyita Ramadhana

Clinical Nutrition Study Program
Department of Health

ABSTRACT

Anemia is a condition of decreased erythrocyte count characterized by decreased hemoglobin, hematocrit, and erythrocyte levels. The main cause of anemia is iron deficiency. One of the efforts to meet the needs of iron in the body is to consume foods that contain iron. Modification of the main ingredients in making soft cookies containing iron can be done by utilizing local food ingredients, namely mung bean flour and soy bean powder. This study aims to determine iron content, organoleptic characteristics, the best treatment, iron content claim of the best treatment, nutritional composition of the best treatment, comparison with commercial products, and serving size of the best treatment for mung bean flour and soy bean powder soft cookies. The design used in this study is a completely randomized design (CRD) with the formulation of the ratio of mung bean flour and soy bean powder, namely P1 (1:9), P2 (3:7), P3 (5:5), P4 (7:3), P5 (9:1). The results of statistical analysis showed that there was a significant difference (sig < 0.05) with a P value of (0.000). The use of mung bean flour and soy bean powder affects the organoleptic characteristics (color, aroma, taste, and texture) of soft cookies. The best treatment of soft cookies is found in the P5 treatment (9 mung bean flour: I soy bean powder). The nutritional content of the best treatment in 100 grams of soft cookies is 2.02 mg iron, 11.91% protein, 15.14% fat, 67.62% carbohydrate, 3.80% water content, and 1.54% ash content.

Keywords: Iron, soft cookies, green bean flour, and soybean powder