ABSTRACT

CAESAR LAINE ANGGI. Development of Instant Porridge Product Based on Modified Starch of Cassava (Manihot esculenta Crantz). Under direction of RIMBAWAN.

In Indonesia, cassava is the two largest foodstuff produced after rice. However, utilization of cassava for food with specific beneficial to health is still limited. Cassava starch can be technically modified to produce resistant starch. Resistant starch is a product of starch degradation that is not absorbed in the small intestine. Resistant starch has beneficial physiological effects to health. Resistant starch can be processed form carbohydrates of a food source such as cassava. Considering an enormous potential of cassava resistant starch, a research of making instant porridge form cassava resistant starch has been conducted. The objective of this research was to study the process of making instant porridge made from cassava starch modification by autoclaving-cooling cycle process. The instant porridge made consisted of five treatments, namely a control of porridge prepared from pure cassava starch, cassava modification starch prepared using one autoclaving-cooling cycle (one cycle) porridge, cassava modification starch prepared using three autoclaving-cooling cycle (three cycle) porridge, and cassava modification starch porridge formulated with added emulsion flour containing protein and fat from soy protein isolate, vegetable oil and eggwhite (formula porridge). Formula porridge is developed by addition 15 grams, 30 grams, and 50 grams emulsion flour in one portion of porridge. Using organoleptic test, this study showed that the best formulation was obtained by adding 15 grams emulsion flour. In one serving size, this product belongs to the class of high fiber foods and high energy foods.

Keywords: resistant starch, instant porridge, autoclaving-cooling cyling, high fiber.