

The Effect of Freezing Process on the Characteristics of Instant Mango Porridge

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ABSTRACT

Instant porridge is a food that has gone through a pregelatinization process so that when serving it does not require a long cooking process, simply by rehydrating it with hot water, the product is ready to consume. The freezing process in making instant mango porridge plays an important role in determining quality because it affects changes in the physical and chemical structure of the ingredients. The purpose of this study was to determine the effect of the freezing process on the physical characteristics, functional, chemical, and sensory properties of instant mango porridge. This study used a descriptive-comparative method with three variables, namely the independent variable consisting of the treatment used, the dependent variable consisting of the test parameters carried out and the control variable. Data were analyzed using One-Way ANOVA at $\alpha = 0.05$ followed by Tukey HSD. The results showed that the freezing process after gelatinization showed a tendency to increase the characteristics of the product with a rehydration time 58,85 seconds, pH 5, yellow color 88,09, swelling power 5,12 g/g, solubility 38,77%, syneresis 6,89%, WHC 266,42%, OHC 94,47%, water content 4,99%, ash content 0,98%, carbohydrate 91,68%, total sugar content 0,82 g/100g, starch 12,23%, amylose 3,68% dan amylopectin 8,55%, and is the most preferred product from the hedonik test results with an average score 3-4.

Keywords : Instant manggo Porridge, Freezing Process, Pregelatinization