ABSTRACT

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PHYSICOCHEMICAL CHARACTERISTICS OF ANALOGUE DRIED NOODLES OF CASSAVA WITH THE ADDITION OF PECTIN AND CHICKEN EGGS

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Analog noodles are noodles that are not made from wheat flour or types of noodles with starch as the basic ingredients. One source of starch in the manufacture of analog noodles is cassava flour. Analog noodles have the characteristics of an unattractive color, sticky, distinctive aroma, and high cooking loss. The addition of pectin and eggs is expected to improve the quality of analog dry noodles so that they are not sticky and easy to knead. The purpose of this study was to produce dry noodles analogous to cassava with the addition of pectin and chicken eggs to produce the best physicochemical and sensor characteristics. The research method used is an experimental method with 2 factors, namely the concentration of adding eggs 50, 55, and 60% and the concentration of adding pectin 0.5; 1; and 1.5%. The results showed that dried cassava analogue noodles with the addition of pectin and egg resulted in cooking loss, elasticity, and tensile strength. In terms of stickiness, elasticity and water absorption, cassava analogue dried noodles are not as good as commercial noodles. Sensory test results with variations in the addition of pectin and eggs generally have the same results as commercial flour-based noodles. The best formulation of cassava analog dry noodles based on the best elasticity and stickiness of all formulations. The best formulation of dried cassava analogue noodles was obtained by adding 1.5% pectin and 60% egg. Analog noodles have a cooking loss value of 8.98 ± 0.67%, water absorption of 467.68 ± 12.96%, stickiness of -101.09 ± 4.44 gs, elasticity of 0.80 ± 0.00 mm, tensile strength of 15.91 ± 0.30 gf/mm2, and elasticity of -8.28 ± 0.67 mm. The proximate test on analog noodles had lower water content (5.60 ± 0.33) and protein content (7.00 ± 0.0) compared to commercial noodles, namely water content (10.52 ± 0.07) and protein (11.38 ± 0.12), commercial noodles had lower fat content (1.22 ± 0.12) and carbohydrate content (74.02 ± 1.14) compared to analogues, namely fat content (4.34 ± 0.3) and carbohydrate news (81.09 ± 0.36), and the same ash content as commercial noodles.

Keywords: Analog noodles, cassava noodles, pectin, chicken eggs, and cassava flour

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