ABSTRACT

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UTILIZATION OF CASSAVA (*Manihot esculenta* Crantz) AND JICAMA (*Pachyrhizus erosus* L. Urban) FLOURS IN MAKING GLUTEN-FREE BISCUIT WITH DIFFERENT TYPES OF FAT
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Biscuit is one of a common bakery product widely consumed. Utilization of cassava in making gluten-free biscuit is common, while the utilization of jicama in biscuit is still limited. Making cassava and jicama flours into composite flour can increase the total dietary fiber in biscuit. The objective of this research was to determine the best ratio of cassava flour to jicama flour (100:0, 90:10, 80:20, 70:30, 60:40) and the type of fat (margarine; shortening) towards the soluble, insoluble, total dietary fiber, inulin, fat, moisture content, spread ratio, color, hardness, and sensory properties of biscuits. The best formulation biscuit was shortening with flour ratio 90:10 of cassava to jicama. It had 5.97±0.09% insoluble dietary fiber, 0.53±0.007% soluble dietary fiber, 2.54±0.00% inulin, 6.50±0.10% total dietary fiber, 19.88±0.17% fat, 2.20±0.10% moisture content, 10.03±0.20 spread ratio, L* value of 52.53±0.37, ºHue value of 66.78±0.51, 869.88±16.07 g hardness. Based on scoring test, the biscuit had no foreign aroma (2.20±1.18), no foreign taste (2.37±1.14), slightly bitter aftertaste (2.57±1.17), not hard (2.31±1.02), and slightly not brown color (3.29±1.36). The panellist slightly liked the aroma (5.29±1.13), taste (5.00±0.94), aftertaste (5.00±1.19), texture (4.71±1.43), and color (5.20±1.28). The panelist also slightly liked the overall acceptance (5.06±1.11) of the biscuit.

Keywords : Biscuit, cassava, inulin, jicama, total dietary fiber
References : 136 (1969-2022)