

ABSTRACT

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EFFECT OF GUAR GUM AND EGG ADDITION ON NOODLE ANALOGUE CHARACTERISTICS

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Noodle analogue is non-gluten based noodles. Noodle analogue made from rice flour are known to have less desirable physical characteristics such as hard and less chewy texture of the noodle. Addition of guar gum as a hydrocolloid and egg in this research was done to improve the noodle characteristics. The aim of this research was to determine the best guar gum and egg concentration to enhance the noodle analogue characteristics. The addition of guar gum was made into various concentration (1.5%, 2%, 2.5%, and 3%), and egg concentration was also made into different concentration (3%, 5%, and 7%) in order to find the best concentrations. The best results of guar gum and egg concentration was obtained in addition of 3% guar gum and 5% egg. The sensory value of the noodle with addition 3% guar gum and 5% egg was in range of acceptable value. The best treatment was then compared to the wheat-based commercial noodle. The best treatment noodle analogue showed to have better cooking loss compared to commercial noodle and same elongation with commercial noodle. Best treatment noodle analogue has fat content $0.25\pm 0.01\%$, protein content $10.71\pm 0.12\%$, ash content of $2.12\pm 0.06\%$, moisture content $12.70\pm 0.19\%$ and carbohydrate content $74.21\pm 0.27\%$.

Keywords : egg, guar gum, gluten-free noodle, noodle analogue, rice flour

Reference : 66 (2001-2020)