

Assessment of Sensory Profile and Shelf Life of Milk Based Rice Flour Biscuits

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Abstract

Most people prefer to consume ready to eat food products. Wheat flour is the most commonly used flour due to its high rising ability of dough gluten, but it contains certain health hazards. Rice flour is one of the most valuable nutritional foods with high wellbeing value. The study was focused on to development of milk based rice biscuit which is high nutrient and healthy. There were two preliminary trials to determine the best milk type and suitable stabilizer. Based on preliminary trials, pasteurized milk and xanthan gum were selected as milk and stabilizer for the product. There were five treatments with pasteurized milk ranging from 75% - 55% (v/w) and xanthan gum as 1.25% - 5.75% (w/w). Best levels were selected using 30 untrained panelists. Proximate analysis yeast and mold, coliform and *E.coli* were analyzed for the final product. Sensory data were analyzed by the Friedman test and physiochemical and microbial data were analyzed using t- test in MINITAB 16 software. The biscuit containing 65% (v/w) pasteurized milk and 0.25% (w/w) xanthan gum level was the best treatment. There is no significant difference between stabilizer treatments except with mouth feel and texture attributes ($P>0.05$). Selected best sample consists of $3\% \pm 0.02$ moisture, $10\% \pm 0.04$ protein and $23.5\% \pm 0.2$ fat content and physiochemical and microbiological parameters were in accordance with the SLS standards during one month of storage at room temperature. This product can be produce easily and have longer shelflife at room temperature.

Keywords: Rice biscuit, milk, xanthan gum