

Development of Herbal Biscuit and Evaluation of Sensory and Nutritional Quality

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In Sri Lanka, biscuits are a popular baked snack food. This research was carried out to develop a herbal biscuit incorporating herbal powder mixer of coriander (*Coriandrum sativum*), cinnamon (*Cinnamomum zeylanicum*), curry leaves (*Murraya koenigii*), ginger (*Zingiber officinale*), and liquorice (*Glycyrrhiza glabra*) and were evaluated the sensorial attributes and nutritional quality of the developed product for consumer acceptability. These herbs were chosen based on their medicinal and nutritional qualities, as well as the safe consumption level. Two different mixers of herbs were prepared according to two different proportions. One of them was with equal proportions (F1: 20:20:20:20:20) and another one was made by reducing the amount of liquorice and increasing the other herbs with the same amount for treatment mixer (F2: 22.73:22.73:22.73:22.73:9.09). According to the sensory evaluation, the formulation F2 was selected as the best herbal mixer which was used to develop herbal biscuits with varying amount of 0%, 5%, 10%, and 15%. The other ingredients of wheat flour, fat spread, baking powder, cocoa powder, sugar, vanilla, and liquid milk was used for making the biscuit dough. After sheeting and cutting of biscuits, they were baked at 180 °C for 15 minutes. The color, flavor, texture, taste, mouth feel, and overall acceptability of the biscuits were evaluated using a five-point hedonic scale. Sensory evaluation for the prepared biscuits was carried out with the thirty-one untrained panellists. Based on sensory evaluation, the optimum incorporation of herbal mixture was a biscuit containing 10% mixture of herbs. The selected biscuits (10%) were subjected to evaluate nutritional quality with control sample (except herbal mixture). In the selected biscuit contained total sugar 10.92±0.104%, crude protein 12.41±0.012%, crude fat 15.29±0.146%, moisture 3.05±0.384%, ash 1.83±0.001%, total carbohydrate 64.24±0.004% and fibre 3.15±0.146%. According to the present study 10% herbal mixture could be recommended for herbal biscuits.

Key words: Fortification, Herbal Biscuits, Herbs, Sensory quality