

Development of Cinnamon Biscuits with No Added Sugar and Evaluation of Its Quality Characteristics

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The aim of the current research was to develop cinnamon biscuits with no added sugar and evaluation of its quality characteristics. In this study, biscuits were developed by fully replacing sugar with different amount of cinnamon powder (5, 10 and 15 %) and biscuits with recommended level of sugar was used as a control. Sensory evaluation test with 5 point hedonic scale with thirty panelists was performed to select the best sample among the different treatments. Based on the sensory evaluation test most of the panelist preferred, biscuits fortified with 15 % cinnamon powder and it was selected for further analysis along with control. Total nitrogen content of the selected samples were estimated by Kjeldhal method and the total nitrogen content of sensorially accepted biscuit was lower than control (0.65 %). Therefore egg albumin was added to developed biscuits to improve the nitrogen content. After improvements total nitrogen content was increased up to 1.02 % and as well as physical and sensory properties were higher than control sample. The microbiological quality of the developed biscuits were tested with total plate count and yeast and mould count. The microbiological quality of the samples were acceptable according to SLS standard up to 3 months of storage period. There is no significant difference in the cost of production of control and the most accepted cinnamon biscuits, which were LKR. 140/12 biscuits and LKR. 142/12 biscuits respectively. It could be concluded that biscuits with 15 % cinnamon powder has a potential for commercialization and further studies with large scale is needed for its conformation.

Keywords: Biscuits, Cinnamon, Sensory evaluation