

Abstract

The purpose of this research was to produce a new product from broken cashew nut which aims to be attractive, tasty, and healthful in order to potentially distribute to the market. Idea generation and screening were used under the criteria of feasibility of market acceptance, reasonable pricelists, healthy-imaged and easy to storage. Done by experts, cashew nut butter was selected out of 16 generated ideas. In consequence, formulation and process development were then studied including the effect of roasted temperature (100 and 130 °C) and time (0-14 min), amount of salt (0.8-1%) and sugar (7-8%) and the effect of three types of texture analyzer on quality of cashew nut butter. Prior the formulation step, three different commercial peanut butter products were investigated. Liking score from 30 panelists were 6.65 (like slightly) to 7.15 (like very much). When roasted cashew nut at 100°C and 130°C, the results showed that roasting improved color as increasing a* and b* values. At 130°C cashew nut has developed color in roasted nuts as well as cashew nut butter more than that of 100°C. Roasting process also decreased its moisture content (%) which affect to the sensory attributes after blending. Cashew nut butter made from roasted nut showed higher liking score in all attributes including overall liking, color, color uniformity, aroma, crispiness, flavor, and sweetness than that of unroasted nut. The liking preference was then increasing when roasted the nuts at higher temperature. Further, the effect of three different types of texture enhancers which are trans-fat free hydrogenated vegetable oil, soybean oil, and palm oil has been studied. The results showed that cashew nut butter with trans-fat free hydrogenated vegetable oil gave higher liking score on overall liking, color, appearance, aroma, sweetness, and flavor when compared with soybean oil and palm oil, significantly. The effect of salt and sugar was also determined by varying for 4 formulations which were 0.8% of salt with 7% of sugar, 0.8% of salt with 8% of sugar, 1% of salt with 7% of sugar, and 1% of salt with 8% of sugar. The results showed that that is no significant difference among the treatments. The final formula of the cashew nut product are 86% broken cashew nut with 1% salt, 7% sugar and 6% trans-fat free hydrogenated vegetable oil. Cashew nut butter made from firstly roasted the nut in an oven at 130°C for 15 min before blending for 4 min using high speed food blender. The trans-fat free hydrogenated vegetable oil, salt and sugar were added prior the blending was done. The consumer testing was done on the cashew nut butter products by 100 panelists and it was found that 94% of panelists accepted this product with the overall liking score of 6.89 ± 1.29 for cashew nut butter and 7.51 ± 1.11 for Bread sticks coated with cashew nut butter which are like slightly to like very much.