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Preparation, processing and sensory evaluation of steamed sweetened Channa – An innovative study in Food Science

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ABSTRACT

Chhana is one of the popular traditional Indian dairy product. It is high in nutritive value, consumed by people of different age group almost in every house. Chhana is mainly used as base ingredients for manufacturing of sweetmeats, specially in eastern region of India. To increase the palatability of chhana, an attempt was taken to develop a product-steamed sweetened chhana by adding sugar into chhana and steaming the mixture. On the basis of preliminary trial level of sugar was selected in the range of 27% to 33% of the weight of chhana and the steaming time for channa mixed with sugar was selected in the range of 40 min - 80 min. A comparative study was carried out to evaluate the effect of different concentration of sugar (i.e. 27%, 30%, and 33%) in each steaming condition (i.e. 40 min, 60 min and 80 min) and the effect of different steaming time (i.e. 40 min, 60 min and 80 min) in each sugar concentration (i.e. 27%, 30%, and 33%) on the sensorial as well as physico chemical quality of steamed sweetened chhana. Based on sensorial scores for different attributes viz. flavour, body and texture, colour and appearance, and overall acceptability the addition of sugar at the rate of 30% of the weight of chhana and steaming for 60 min was selected as optimum for preparing steamed sweetened chhana of acceptable quality. The optimized product contained 36.74% moisture, 16.80% fat, 15.84% protein, 1.88% ash and 28.74% total carbohydrate. The titratable acidity of optimized protein was 0.546% lactic acid. The shelf life study was carried out by packaging the product in 3-ply laminated (polyethylene/aluminum foil/polyethylene) pouch and keeping at 8±2°C. The sensorial