

Physicochemical and Nutritional Evaluation of Soursop Juice Fortified with Ginger Extract

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Abstract

Soursop (*Annona muricata*) is a well-known tropical fruit that has a refreshing flavor and a rich nutritional and medicinal value. Although it has its advantages, the fruit is very perishable and the juice becomes spoiled easily as soon as it is extracted. This reduces its accessibility, particularly in such tourist destinations as tourist centres where tourists are likely to demand special and healthy local drinks. The desire to use natural products, instead of synthetic chemicals, to enhance the stability and quality of fruit juices is gaining interest as consumers seek to use plant-based ingredients to their increased preference. Ginger (*Zingiber officinale*), which is a widely used spice, a natural antioxidant and antimicrobial, could serve as a natural, safe preservative. This paper thus examined the effects of addition of ginger on the chemical quality and nutritional value of soursop juice during storage.

The juice samples were made in four different samples namely a control sample that had no ginger and three samples that had 2%, 4 and 6 percent ginger. The samples were examined during ten days with the help of standard AOAC (2005). The changes in the juice in terms of physicochemical factors pH, titratable acidity, soluble solids (o Brix), and specific gravity were observed to learn about the alterations of the juice throughout the storage period. Moreover, the proximate analysis (moisture, ash, fat, protein, fibre, and carbohydrate) and mineral contents were evaluated to establish the nutritional content of each sample.

Comprehensively, the research offers helpful information regarding the effects of ginger on the texture and the nutritional content of soursop juice. This knowledge can be used to develop healthier, naturally preserved drinks and help in promoting the use of soursop as a value-added product particularly in food tourism whereby other unique local beverages can be used to improve visitor experiences.

Keywords

Soursop juice, Ginger, Natural preservative, Physicochemical properties, Nutritional composition.