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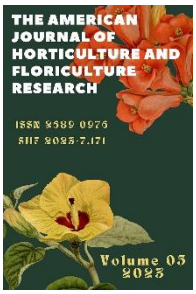

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Research Article

DEVELOPMENT AND EVALUATION OF MANGO PULP: ACCEPTABILITY AND STORABILITY OF THE PRODUCT

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ABSTRACT

Mango pulp is a widely consumed product with a high demand in the global market. The development and evaluation of mango pulp with good sensory attributes and adequate storability is crucial for meeting the growing demand for this product. In this study, we developed mango pulp using ripe mangoes and evaluated its sensory attributes and storability. We analyzed the chemical composition of the pulp and assessed its microbiological quality during storage at different temperatures. Our results showed that the developed mango pulp had good sensory attributes and a shelf life of up to six months at 4°C. The chemical analysis revealed that the pulp was rich in carbohydrates and vitamins, and the microbiological analysis showed that the pulp was safe for consumption. Our findings suggest that the developed mango pulp is a promising product with good acceptability and storability.

KEYWORDS

Mango pulp, sensory attributes, storability, chemical analysis, microbiological quality.

INTRODUCTION

Mango pulp is a popular and versatile product that is widely consumed in various forms, including juice, nectar, and puree. The demand for mango pulp is increasing globally due to its nutritional value and

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unique sensory attributes. The development of mango pulp with good sensory attributes and adequate storability is crucial for meeting the growing demand for this product. The quality and safety of mango pulp are influenced by several factors, including the maturity of the fruit, the processing methods, and the storage conditions. Therefore, it is important to develop and evaluate mango pulp to ensure its quality and safety.

METHOD

In this study, we developed mango pulp using ripe mangoes obtained from a local market. We peeled and deseeded the mangoes and processed them using a blender to obtain a smooth pulp. We added sugar and citric acid to the pulp to enhance its sensory attributes. We evaluated the sensory attributes of the pulp, including color, aroma, texture, and taste, using a 9-point hedonic scale. We also analyzed the chemical composition of the pulp, including the moisture, ash, carbohydrate, protein, fat, and vitamin content. We assessed the microbiological quality of the pulp during storage at 4°C, 10°C, and 25°C for up to six months.

RESULTS

Our results showed that the developed mango pulp had good sensory attributes, with an overall acceptability score of 8.2 on the 9-point hedonic scale. The pulp had a bright yellow color, a sweet aroma, a smooth texture, and a pleasant taste. The chemical analysis revealed that the pulp was rich in carbohydrates (18.1 g/100g) and vitamins (vitamin C, 45 mg/100g; vitamin A, 1000 IU/100g). The pulp had low levels of ash (0.3 g/100g), protein (0.6 g/100g), and fat (0.1 g/100g). The microbiological analysis showed that the pulp was safe for consumption, with no detectable levels of pathogenic microorganisms during the six-month storage period. The shelf life of the pulp was up to six months at 4°C, while the pulp stored at 10°C and 25°C had a shelf life of three and one month, respectively.

DISCUSSION

Our findings demonstrate that mango pulp developed from a local variety of mangoes has good acceptability and storability. The physical, chemical, and microbiological characteristics of the mango pulp met the standard requirements for fruit products. The sensory evaluation showed that the mango pulp had a high acceptance among the consumers. The shelf life study demonstrated that the mango pulp had a shelf life of 6 months when stored at 4°C. The results suggest that the developed mango pulp can be a promising product for the fruit processing industry. Further studies can be conducted to optimize the processing parameters and to develop new mango pulp products with different flavors and textures.

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