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## Protein Fortified Mango and Guava Fruit Bars: Ingredients Optimization, Quality Evaluation and Storage Stability.

Mohamed Saleh Kourany, Khalil Ibrahim Khalil, **Samah, A. Abd-Eltwab** and Adel Abd El Razek Abd El Azim Mohdaly  
Food Science & Technology Department, Faculty of Agriculture, Fayoum University, Egypt.

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### Abstract

The present fulfillment was carried out with the objective of the production of mango and guava-bars fortified with protein having good sensory quality and high nutritional value and suitable for direct eating as a replacement of the confectionary and snacks which has no nutritional value. The results indicated that the optimum concentrations of sugars were 20% and 15% to be blended with mango- and guava pulps, respectively followed by drying at 65°C to moisture content of 15-20%. Sulphiting treatment of mango- and guava-pulps to the levels of 1500 and 1000 ppm, respectively is necessary to produce bars of fruits with perfect natural colors. The data of food stabilizers exhibit that addition of both 1.5% pectin and 0.5% carboxy methylcellulose to mango-pulp and to guava-pulp, respectively produce more convenient conditions for production bars of fruits which have good texture and chew-ability properties, respectively. Fortification with protein indicate that using 1.0% milk protein concentration is preferred to produce protein-fortified mango bar, while adding 2.0% of whey protein to guava is more convenient. Organoleptic evaluation and chemical analysis are showing that the possibility to produce protein-fortified mango-and guavabars of good sensorial character and of high nutritive values because of their high levels of sugar, proteins, fibers, minerals amino-acids, vitamin C, and  $\beta$ -carotene. The manufactured products in this study have high storage chemical, sensorial and microbiological stabilities. **Key Words:** Mango, Guava, Fruit-bar, Food stabilizers,

Minerals, Nutritional value, Protein fortification, Sensory properties, Storage stability.

عميد الكلية

رئيس مجلس القسم

أ.د/ منى عبد

أ.د/ عوض عبد التواب محمود

التواب الخشاب