

Characterization and stability of pitaya pearls from hydrocolloids by reverse spherification

ABSTRACT

The physicochemical properties, shelf life and stability of pitaya pearls (PP) by reverse spherification from sodium alginate (PP Alginate), kappa carrageenan (PP Kappa) and a combined iota carrageenan-sodium alginate (PP Iota) were studied. The macronutrients of PP were not affected by the hydrocolloid types, except for ash. PP Alginate showed the strongest textural properties. Storage duration affected mainly elasticity of all PP. During storage, PP Alginate and PP Kappa had better morphological and textural stability. However, PP Kappa with lower values of calorie, hardness, and rupture force is the suggested PP for consumption in beverages.

Keyword: Alginate; Carrageenan; Texture; Rupture force; Storage stability