

ABSTRACT

In recent years, the food industry develops functional food which produces health benefits to the customer and the beverage industry is a suitable sector to explore. Therefore, this project aims to develop a collagen drink using the Thong Pha Phum GI (Geographical Index) rambutan as a locally grown fruit in Thailand. The main objective is to observe the effects of different concentrations of rambutan (2%, 3%, and 4%) and xylitol (7%, 8%, 9%) to the sensorial and physicochemical properties of the collagen fruit juice. The rambutan collagen drink formulation was made using infused chrysanthemum water, collagen, xanthan gum and various concentrations of rambutan and xylitol. Results showed there were no significant differences ($P>0.05$) in the sensory analysis attributes which include color, aroma, taste, texture, aftertaste, and overall liking, however there were significant differences ($P<0.05$) in the physicochemical analysis such as the color, viscosity, brix, pH, fat, ash, and total phenolic compound were found to be significantly different ($P<0.05$), while the crude fiber, protein, moisture, and citric acid were found not significantly different ($P>0.05$). The data showed that the amount of rambutan and xylitol difference were not significant enough for panelists to detect due to insufficient sensory threshold but the differences were enough to be significant enough on some aspects of the physicochemical. From the sensory analysis, it could be concluded that the most preferred product is formula 7 (XY 9%, RB 2%) as it has the highest overall liking score.

Keywords: Collagen Fruit Juice; Rambutan; Xylitol; Physicochemical Analysis; Sensory Analysis