Texture Profile Analysis (TPA) of the jelly dessert prepared from halal gelatin extracted using High Pressure Processing (HPP)

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Abstract

High Pressure Processing (HPP) is a novel extraction method. This technique increases the yield of gelatin and enhances its properties. In this study, the performance of the gelatin extracted from red tilapia fish skin treated with HPP was evaluated using the Texture Profile Analysis (TPA) method, in comparison with the commercial fish gelatin. Based on the Total Soluble Solid (TSS) results, the jelly prepared with HPP-treated gelatin has a longer shelf life. The sensory textures of the lychee jelly were described based on the force-time plot. The results showed that the hardness, adhesiveness, gumminess and chewiness of the jelly prepared using HPP-treated gelatin are higher compared with the commercial gelatin while the cohesiveness and the springiness are similar for both jellies. In conclusion, the jelly prepared using gelatin treated with HPP is preferable compared to the commercial gelatin because it is more rigid, firm and adhesive.

Keywords

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Key Words Plus: PHYSICOCHEMICAL PROPERTIES; FISH GELATIN; SKIN; PRETREATMENT

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