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The Characteristcs and Amino Acid Profile of Edible Coating Extracted from Pigskin Gelatin

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Abstract : Edible coating is thin layers that act as a barrier to the external factors and protect the food products. The addition of the plasticizer to the edible coating is required to overcome film caused by extensive intermolecular forces. The potential development of pigskin with different ages as a raw material for the manufacture of edible films had not been widely publicized. This research was aimed to determine the influence of gelatin concentration and different type of plasticizer on the edible coating characteristics extracted from pigskin gelatin. This study used Completely Randomized Design (CRD) with two factors and three replicates of treatments. The first factor was consisted of pigskin gelatin concentration (10, 20, and 30 %) and the second factor was different type of plasticizer (glycerol, sorbitol and PEG). The results show that the interaction between the use of gelatin concentrations and type of plasticizer had significant effect ($P< 0.05$) on the thickness, tensile strength, elongation, water vapor transmission rate (WVTR), water content and amino acid profile of edible coating. It was concluded that the edible coating from pigskin gelatin with plasticizer gliserol had the best film characteristics, and it can be applied as an edible coating.

Keywords : edible coating, edible film, pigskin gelatin, plasticizer
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