

Physicochemical Properties of Palm Stearin (PS) and Palm Kernel Olein (PKOO) Blends as Potential Edible Coating Materials

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Abstract : This study was conducted to determine the potential of palm stearin (PS) as edible coating materials for fruits. The palm stearin was blended with 20-80% palm kernel olein (PKOO) and the properties of the blends were evaluated in terms of the slip melting point (SMP), solid fat content (SFC), fatty acid and triacylglycerol compositions (TAG), and polymorphism. Blending of PS with PKOO reduced the SMP, SFC, altered the FAC and TAG composition and changed the crystal polymorphism from β to mixture of β and β' . The changes in the physicochemical properties of PS were due to the replacement of the high melting TAG in PS with medium chain TAG in PKOO. From the analysis, 1:1 and 3:2 were the better PSPKOO blend formulations in slowing down the weight loss, respiration gases and gave better appearance when compared to other PSPKOO blends formulations.

Keywords : guava, palm stearin, palm kernel olein, physicochemical

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