ABSTRACT

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THE APPLICATION OF DURIAN RIND PECTIN TOWARDS THE CHARACTERISTICS OF STRAWBERRY JAM
(xvi + 155 pages : 16 tables, 30 figures, and 17 appendix)

The effect of pectin extracted from durian rind applied in the making of strawberry jam was studied. Durian rind pectin can be classified as high methoxyl pectin with characteristics of 1024.71 equivalent weight, 7.52% methoxyl content, 59.86% anhydrogalacturonic acid, 71.32% degree of esterification, 252 seconds gel setting time, and 4365.9 N gel strength. In its application in jam making, durian rind pectin concentration (0%, 0.25%, and 0.50%) and strawberry fruit concentration (10%, 20%, 30%, 40%) were two factors that affect the characteristics of strawberry jam. Higher fruit concentration gave higher consistency, viscosity, and gel strength. However, the pH, water activity and syneresis were reduced. Meanwhile, increasing pectin concentration led to higher consistency, viscosity, gel strength, and adhesiveness, but lower pH, water activity, and syneresis. The most preferred strawberry jam formulation in term of spreadability and overall characteristics was made with 20% fruit concentration with 0.25% pectin concentration. The best strawberry jam made with durian rind pectin was compared with strawberry jam made with commercial pectin and showed comparable characteristics in term of physical (pH, total soluble solid, \( a_w \), viscosity, consistency, syneresis), chemical (moisture, ash, protein, fat, carbohydrate), and sensory evaluation (QDA method).

Keywords: strawberry jam, durian rind, pectin.
References: 85 (1972 - 2010)