

Public Abstract

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Title:Properties of extruded white corn flour - high amylose corn starch puffs

Many snack foods and breakfast cereals currently on the market are produced by the extrusion process. Our research focused on the study of the use of high-amylose corn starch in corn puff snack products. High-amylose starch is processed as dietary fiber by the body because it is a resistant starch. For this reason, high-amylose starch could be a valuable ingredient to healthy snack foods on the market. One of the main focuses of our study was the analysis on the changes in glass transition temperature and texture at various water activities and high-amylose corn starch contents. Glass transition temperature is an important characteristic for the food manufacturer to know because the food texture varies greatly above and below this temperature. Since the glass transition temperature is dependent on the moisture content, the texture of the food will be dependent on both the moisture content and the product temperature. The Gordon-Taylor equation was used in the analysis of the glass transition temperature.