The Emergence of Edible and Food-Application Coatings for Food Packaging: A Review

ABSTRACT

Food packaging was not as important in the past as it is now, because the world has more people but fewer food resources. Food packaging will become more prevalent and go from being a nice-to-have to an essential feature of modern life. Food packaging has grown to be an important industry sector in today's world of more people and more food. Food packaging innovation faces significant challenges in extending perishable food products' shelf life and contributing to meeting daily nutrient requirements as people nowadays are searching for foods that offer additional health advantages. Modern food preservation techniques have two objectives: process viability and safe, environmentally friendly end products. Long-term storage techniques can include the use of edible coatings and films. This article gives a succinct overview of the supplies and procedures used to coat food products with conventional packaging films and coatings. The key findings summarizing the biodegradable packaging materials are emphasized for their ability to prolong the freshness and flavor of a wide range of food items; films and edible coatings are highlighted as viable alternatives to traditional packaging methods. We discuss the safety concerns and opportunities presented by applying edible films and coatings, allowing it to be used as quality indicators for time-sensitive foods.