

The Global Market for Edible Films and Coatings 2024-2035

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Abstracts

Edible films and coatings will become an integral part of the fresh produce supply chain in the future as suppliers seek more sustainable solutions to extend product shelf-life, minimise food waste and deliver fresher fruits and vegetables to consumers. Edible films and coatings are made from edible biopolymers and food-grade additives. These films consist of thin layers of polymers able to provide mechanical strength to the stand-alone thin structure. Edible films protect food from physical, chemical, biological deterioration, migration of moisture, microbial growth on the surface, oxidation of nutrients, and enhance the quality of food products. Edible films offer the barrier to oils, gasses, vapours and can be used as carriers of active substances like antioxidants, colours, antimicrobials, and flavours. It results in shelf-life extension and safety improvement. Film forming biopolymers include proteins, polysaccharides (carbohydrates and gums), or lipids. At low relative humidity proteins are good film formers exhibit excellent O₂, CO₂, and lipid barrier properties. Films are mainly used to wrap food material, whereas coatings can be used directly on food products. The types of materials used for the production of these films are mostly renewable biological sources, mainly consisting of starch, cellulose, hemicellulose, protein, gelatin, lipids, fibers, etc. Examples of such materials include corn, sorghum, rice, fruit and vegetable waste, and agricultural waste such as wood chips or bagasse.

Edible films and coatings are considered as the potential solution to these problems of non-biodegradable packaging solid wastes for maintaining food-environment interactions, retaining food quality, and extending shelf life. In addition, edible coatings and films offer prevention from microbial spoilage of packed foods by controlling moisture and gas barrier characteristics (with the use of additives). Increasing environmental concerns and consumer demands for high-quality eco-friendly packaging have fuelled the advancement of innovative packaging technologies, for instance, the

development of biodegradable films from renewable agricultural and food processing industry wastes.

The Global Markets for Edible Films and Coatings 2025-2035 is a comprehensive market research report that analyzes the rapidly growing edible films and coatings industry. The report covers the current state and future potential of various types of edible coatings and films, including protein-based, polysaccharide-based, lipid-based, composite, and nanoparticle-based materials, as well as their applications across different food sectors.

The executive summary provides an overview of the global edible coatings and films market, market size and growth projections, key market drivers and challenges, and the role of edible films and coatings in reducing food waste and promoting a circular bioeconomy. It also highlights emerging trends and opportunities, such as multi-functional and active coatings, natural antimicrobials and antioxidants, nanomaterials, biodegradable and compostable solutions, personalized nutrition, plant-based products, and smart packaging systems.

The introduction section offers a detailed classification of edible coatings and films, their advantages, limitations, and types based on different feedstocks. It explores the properties and applications of various protein-based, polysaccharide-based, and lipid-based materials, as well as composite and nanoparticle-based coatings. The report also covers the use of edible film additives, safety and regulations, and manufacturing methods.

The market analysis section provides valuable insights into the applications of edible coatings and films in different food sectors, including fruits and vegetables, meat and poultry, seafood and fish, dairy and eggs, bakery and confectionery, nuts and snacks, and other emerging applications. It assesses the market drivers, challenges, and future outlook for each application area.

The report includes global revenue forecasts for edible films and coatings by material type, market, and region, providing a comprehensive view of the market's growth potential. It also features profiles of over 30 key players in the edible coatings and films industry, offering insights into their products, technologies, and strategies. Companies profiled include Apeel, DisSolves, FlexSea, FoodBerry, IUUV Srl, Kuraray, mori, Notpla, Saveggy, Sun Chemical and Xampla.

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