A good sustainable method of edible food packaging

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An edible film or coating can be defined as the incorporation of a layer of edible material made, placed or inserted between the foods or food components. It is done to make a whole packaging material to provide a base or to function as a preservative. It is made in such a way that it can act as a part of the food that can be eaten as well. It can be used by dipping food in formulated solutions or by layering it in between the food units. Recent trends and methods have enabled significant growth of edible food packaging. Now, it is not just a film that is biodegradable, but it also functions as a preservative film, antioxidant, flavour enhancer, texture and colouring agent. It is made based on polysaccharides, like cellulose, hemicellulose, starch, chitosan and polysaccharide gums. Additionally, it can be either protein-based, like gelatin, zein, whey protein, casein etc., or lipid-based, including natural waxes, gels, resins etc. It has selective permeability to oxygen and carbon dioxide. The protein and lipid-based films minimise moisture loss and provide gloss. Quality edible packs are produced with the advancement in ideas and instrumentations, like co-extrusion, casting methods and nanotechnology. Furthermore, there is a new trend of edible packing peanuts, edible cups and straws. Sometimes, nutraceuticals are also used in edible films. Edible packaging is a sustainable solution for overcoming concerns related to plastic. It will also reduce the plastic footprints. There are many things that need to be explored and improved in terms of edible film packaging. The safety and quality of coatings or films used should be studied in detail. Therefore, within a span of time, edible film packaging will slowly but surely be found in every possible food item. It will also act as an alternative that helps humankind in fighting against the concerns of plastic packaging.

Keywords: Edible packaging, Sustainable, Preservation, Packaging

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