

عنوان مقاله:

A review of the uses of alginate (algenic acid) as a useful and practical food

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خلاصه مقاله:

In addition to having basic nutritional properties, Functional Foods also have positive effects on health. In general, foods that have a healthy slogan are included in this group. Consumption of such foods when they are part of the diet, in addition to having nutritional properties, they also have physiological benefits and have a significant effect in reducing the risk of serious and chronic diseases. In general, we can classify many types of food in this group, including: phenolics of plant origin, probiotic bacteria, fibers, egg yolk, etc. Alginate is an established food ingredient widely used in the production of functional food products. As a food ingredient, the applications of alginate are based on three main properties, i.e., thickening, gelling and film forming. This paper summarizes the main properties of alginate and its applications in a myriad of newer functional food products, from edible food jelly, restructured meat, coating for prepacked, cut or prepared fruits and vegetables, etc. In addition, new applications are also emerging following the chemical, physical and biological modifications of alginate to yield derivatives with specialized functional properties. In this respect, the paper also summarized the application of alginate oligomer and propylene glycol alginate in the production of meat products, pasta products, drinks and many other forms of food products. Alginates are a group of viscous polysaccharides derived from brown seaweeds and produced as an extracellular matrix by some bacterial species. Traditionally, alginates have been used as thickeners, emulsifiers and stabilising agents in a number of food applications. A number of new food applications are emerging for alginates, based on their unique biochemical and biophysical properties. These applications are discussed within this review, as are the nutritional properties of dietary alginates, and their physiological actions in humans.

کلمات کلیدی:

Alginate, Biopolymer, Dietary fiber, Food ingredient, Functional food

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