

EDIBLE COATINGS FROM GALACTOMANNANS AND THEIR APPLICATION TO TROPICAL FRUITS

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Edible coatings play an important role in the quality and in the resistance to transportation, storage and display of a wide range of fresh and processed foods. Polysaccharide coatings with an oil-free appearance and low caloric content can be used to increase the shelf life of fresh fruits, since they allow the modification of the internal gas composition of fruits, retarding their senescence. The objective of this work was to study the ability of seed galactomannans, with different manose:galactose relation, from the *Leguminosae Caesalpineae pulcherrima* (2.8:1) and *Adenantha pavonina* (2:1) as coatings to extend the shelf life of acerola (*Malpighia emarginata*), cajá (*Spondias lutea*), mango (*Mangifera indica*), pitanga (*Eugenia uniflora*) and sirigüela (*Spondias purpurea*). Fresh fruits surface properties, galactomannans relative viscosity as well as the wetting capacity of the coatings were determined. Galactomannans were obtained from seed endosperm and their toxicological safety was determined by oral administration to Wistar adult rats. No toxic effects were detected. Blends with different galactomannan:glycerol proportions were tested as coatings. The blends wettability was determined by the spreading coefficient using the sessile-drop method. The best proportions of galactomannan/glycerol were determined for coatings of *C.pulcherrima* and *A.pavonina* in the various fruits tested.

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