

## GALACTOMANNAN EDIBLE COATINGS

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An important role in the quality, transportation, storage and display of a wide range of fresh and processed foods are played by edible coatings. 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 its senescence. The objective of this work was to study the ability of seed galactomannans, with different man:gal relation, from the *Leguminosae* *Caesalpineae pulcherrima* (2.8:1) and *Adenanthera 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 safe grade characteristics determined by oral administration to Wistar adult rats and no toxic effects were detected and a blend with different gum:glycerol proportions were tested as coatings. The blend wet ability determined by the spreading coefficient using the sessile-drop method, was calculated with different gum/glycerol mixtures and the best concentrations for *C.pulcherrima* and *A.pavonina* gum:glycerol were to acerola 0.5%:2% and 0.5%:1%; cajá: 0.5%:1% and 0.5%:1%; mango: 1.5%:2% and 1.5%:1%; pitanga: 0.5%:1% and 1.5%:1; serigüela: 0.5%:1% and 0.5%:1.5%.

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