

Edible Films Based on Complex Corn Starch-Galactomannan-Nisin on a Bioassay against *Lysteria monocitogenes*

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Introduction: Edible films and coatings are an interesting alternative to increase the shelf-life of food in spite of packages made of petroleum derivatives. Edible films and coatings are capable of providing functional advantages like modified and controlled-atmosphere, being carriers of antimicrobials, antioxidants or other preservatives, retaining the volatile flavour and they can also decrease packaging wastage associated with processed foods. Galactomannans are hemicelluloses with β -D-glucopyranose backbone linked in β (1 \rightarrow 4) and β -D-galactosyl residues in a (1 \rightarrow 6) ramification. These polysaccharides are most ones cited in the literature to do constitute ingredients in foods because their unique properties such as the high viscosity. **Objectives:** The aim of this work was to study the nisin performance against *Lysteria monocitogenes* in different samples of edible films made of blend of galactomannan-corn starch, and glycerol used as a plasticizer. **Results:** The edible films with nisin at 0.1 and 0.25 mg/mL showed doses dependent effect decreasing the *ufcs* after 24 and 48 hours of time exposure. When the treatments had been compared among themselves, statistical differences ($p < 0.05$) in the number of *ufcs* were detected. **Conclusions:** Nisin showed effectiveness against *L. monocitogenes* when blended with galactomannan and corn starch to do different samples of edible films.

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