Psyllium (Plantago) Gum as an Effective Edible Coating to Improve Quality and Shelf Life of Fresh-Cut Papaya (Carica papaya)

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Abstract : Psyllium gum alone and in combination with sunflower oil was investigated as a possible alternative edible coating for improvement of quality and shelf life of fresh-cut papaya. Different concentrations including 0.5, 1 and 1.5 percent of psyllium gum were used for coating of fresh-cut papaya. In some samples, refined sunflower oil was used as a lipid component to increase the effectiveness of coating in terms of water barrier properties. Soya lecithin was used as an emulsifier in coatings containing oil. Pretreatment with 1% calcium chloride was given to maintain the firmness of fresh-cut papaya cubes. 1% psyllium gum coating was found to yield better results. Further, addition of oil helped to maintain the quality and acted as a barrier to water vapour, therefore, minimizing the weight loss.

Keywords : coating, fresh-cut, gum, papaya, psylllium

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