EVALUATION OF DIFFERENTS CONCENTRATIONS OF CHITOSAN IN FRESH CUTS MANGO FRUITS. FREIRE JÚNIOR, M.(1); DUCAMP, M.N.(2); RIBEYRE, F.(2); REYNES, M.(2); DELLA MODESTA, R.C.(1). (1) Embrapa Agroindústria de Alimentos, Av das Américas, 29.501. Guaratiba, CEP 23020-470, Rio de Janeiro, RJ, Brasil. (2) CIRAD, 75, rue J.F. Breton, BP 5035, Montpellier, França. Email: <u>mfreire@ctaa.embrapa.br</u>.

Coating fruits is an effective conservation method. Thin edible films can be used to inhibit gas exchanges, control respiration rate, decrease nutrient loss, reduce water evaporation and prevent microorganism growth. The aim of this work was to evaluate the use of different Chitosan concentrations to keep the quality of fresh cut mango fruits storage under refrigeration. Three treatments were evaluated: 1.5% Chitosan, 0.75% Chitosan and distilled water (used as a control treatment). Mango cubes were dipped into the coating solutions and then placed inside polypropylene plastic trays sealed with polypropylene films. The trays were storage at 4°C for up to 7 days. The O₂ and CO₂ concentrations were measured from inside packages by withdrawing air samples through a gas analyser Checkmate 9900 PBI Dansensor Danemark. Ten pieces per replicate were evaluated from each treatment. Total titrable acidity, pH, total soluble solids, O₂ and CO₂ concentrations, respiratory intensity, firmness, colour (L* and b* values) and sensorial analysis were evaluated. The sensorial evaluation indicated that the fresh-cut mango treated with 0.75% Chitosan resulted in better flavour but the same appearance and texture than the others treatments. The 1.5% Chitosan treatment showed worst flavor characteristics than others. There were no marked differences on the others analyzed characteristics.