

Title Physicochemical characteristics of minimally processed 'Pérola' pineapples treated with edible coatings

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Abstract

Pineapple minimum processing (MP) has been conquering an increasing market share as long as consumers demand products with quality, convenience and practicality. Edible coatings are applied to increase shelf life of minimally processed vegetables and to keep their quality. This work aimed at evaluating the effect of the use of combined post-harvest treatments on the appearance and on physical-chemical characteristics of 'Pérola' pineapples minimally processed, harvested at two apparent maturation stages. 'Pérola' pineapple fruits were submitted to MP, including dipping into suspensions of edible coatings with cassava starch containing gelatin or sorbitol. Fruits were stored in a cold room at 7°C for eight days and analyzed every two days in relation to firmness, total soluble solids (TSS), pH, total titratable acidity (TTA), ratio TSS/TTA, vitamin C, contents of total and reducing sugars and peroxidase activity. The experimental design was a completely randomized one with three replications. Better results were obtained for "green-ripe" pineapples treated with antioxidant agent or an edible coating containing cassava starch, as they kept characteristics of fresh fruits during the entire period of storage. The majority of changes observed along the storage period of the fruits could be attributed to differences in their maturation stages and not to the treatments evaluated.