EVALUATION OF POSTHARVEST BEHAVIOR OF COCONUT (Cocos nucifera L.)

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ABSTRACT

Coconut is a Tropical fruit of interest for Colombia; one part of its production is used at industrial level; nonetheless, there is little diversification of products with added value and lack of availing of coconut water, the husk, and peel. The aim of this research was to evaluate the behavior of the physical and physical-chemical properties of coconut pulp (CP) and its coconut water (CW) during storage at 25 °C, to determine the adequate time for use as raw material for its transformation, using a completely random design (CRD) via analysis of variance (ANOVA) and Tukey tests, with 5% significance level. Where the independent variable were the control times at 15, 22, 29, 36, 43, and 50 days after harvest, at the rate of 3 coconuts/lot for each control time. Among the response variables we determined the percentage distribution of the CP, CW, and inner shell (endocarp), as well as properties of Xw, pH, soluble solids, acidity, a_w, color (L*, a*, b*), viscosity, and texture. Results showed general CP and CW deterioration after de 36 days of storage, mainly due to increased acidity, fermentation odors, loss of Xw, lipid oxidation (LO), and CP softening and discoloration, among others.

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