

**Title** Physical-chemical analysis of selected quenepa (*Melicoccus bijugatus* Jacq.) varieties

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**Citation** Thesis, Master of Science (Food Science and Technology), University of Puerto Rico. 77 pages. 2007.

**Keywords** quenepa; tropical fruit

### **Abstract**

Tropical fruits are desired by international markets, especially by those markets in which Latin people predominate. In Puerto Rico, there are diverse varieties of quenepa (*Melicoccus bijugatus* Jacq.), which present different characteristics as to size, shape, flavor, quantity of pulp, time of harvest, and others. The original distribution of this fruit extends from northern South America, to Central America and the Caribbean. The objective of this study was to determine pulp adherence to the seed and the differences in physical-chemical properties of selected varieties of quenepa grown in Puerto Rico.

Ten varieties 'Perfa', 'Jose Pabón', 'Sotomayor', 'Doña Fela', 'Sasa', 'Martínez', 'Las Cuevas', 'César Ramos', 'Alina' and 'Carmen', were evaluated for yield of pulp, pulp adherence (pressure), total soluble solids, color, pH, titratable acidity and organic acids. The results showed that the percent of pulp varied from 38--53%. The pressure of extraction was an indicator of pulp adherence to the seed. The lowest value was 3.4 PSI and the highest value was 12.0 PSI. In addition, the quantity of soluble solids varied between 18 and 22 °Brix. The predominant acids in the fruit are citric acid, malic acid, succinic acid, acetic acid using HPLC method. The column used was Supecogel C-610 H.