LEVELS OF SOLUBLE SOLIDS AND PHENOLIC COMPOSITION OF SUGAR APPLE (Annona squamosa), SOURSOP (Annona muricata) AND ATEMOYA (Annona cherimoya x Annona squamosa)


Sugar apple (Annona squamosa), soursop (Annona muricata), and atemoya (Annona cherimoya x Annona squamosa) are fruits of the Annonaceae family, the atemoya being a hybrid fruit obtained from crossing cherimoya with sugar apple. The objective of this study was to determine the amount of soluble solids (SS), moisture content, total phenolic (TP), flavonoids (FLA) and anthocyanins (AT) of fruit peel and pulp of the genus Annona. The TP were initially extracted using a methanol:water solution (50:50 v/v) followed by an acetone:water (70/30 v/v) solution and quantitated by spectrophotometry (Folin-Ciocalteau) via the standard curve of Gallic acid and expressed in mg/Gallic acid equivalents (GAE). The TP and AT were extracted with a solution ethanol 95% in the HCl 1.5N and quantified by spectrophotometry at λ 374 and 535, respectively, and expressed in µg of quercetin/g. The peels moisture was 53.40±3.39, 65.95±0.63 and 56.55±0.35 and the pulps 66.5±0.84, 65.85±1.48 and 80.30±1.83 for sugar apple, soursop, and atemoya, respectively. The atemoya pulp had the highest content of SS (29.0±0.01). It was detected high levels of TP on the peels (sugar apple: 2215.14±0.53 soursop: 836.99±0.29 atemoya: 2392.76±0.52mgGAE/100g of sample) compared to those found in the pulps (sugar-apple: 191.37±0.18 soursop: 256.11±0.12 atemoya: 99.22±0.36mgGAE/100g of sample). The sugar apple peel was the one with the highest levels of FLA and AT, 13.6x10⁻³ and 3.65x10⁻³ µg of quercetin/g of sample, respectively. The pulps of the fruits evaluated showed high levels of TP and low levels of AT and FLA, while the peels showed high levels of these compounds.