ABSTRACT

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Major Professor: Dr. Florinia E. Merca

The antioxidant properties of ethanolic extract of six tropical fruits namely; guava, bignay, siniguelas, star apple, pomelo and calamansi were evaluated. The total phenolic content (TPC) of the samples was determined by Folin-Ciocalteu phenol assay. The order of TPC in mg tannic acid equivalent per 100 g of sample is: guava > bignay > siniguelas > star apple > apple > pomelo > calamansi. This value is inclusive of absorbance correction from ascorbic acid. The antioxidant capacity of the samples were determined by ferric reducing power of antioxidant assay; hydrogen peroxide scavenging activity; and assays on the percent protection of antioxidants against lipid peroxidation, protein oxidation, and whole plasma lipoprotein oxidation. The results consistently showed that at 1, 5, and 10 ppm concentration levels, the order of antioxidant capacity is: guava > bignay > siniguelas > star apple > apple > pomelo > calamansi. All of the tropical fruits have exhibited higher antioxidant capacity than ascorbic acid. Furthermore, guava, bignay, siniguelas and star apple exhibited higher antioxidant capacity than tannic acid. HPLC analysis of guava and bignay revealed six and four peaks respectively. The peaks with retention time (R_t) around 18 minutes were identified as the ones associated with catechin. Guava and bignay contains 7.46 mg and 2.26 mg of catechin per 100 g of sample respectively.