

Title Comparison of TPC, DPPH and FRAP assays for estimating antioxidant activity from star fruit, pink guava, honey dew and banana fruit extracts

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Abstract

Total phenolics content (TPC), free radical scavenging activity (DPPH), ferric reducing antioxidant power (FRAP) of banana, honey dew pink guava, and star fruit, were evaluated. Phenolic contents expressed as gallic acid equivalents/100 g of the sample were 4.3, 13.5, 226.6, and 524.9 mg for banana, honey dew pink guava, and star fruit, respectively. Pink guava fruit exhibited superior free radical scavenging activity with 66 mg expressed as Trolox equivalents/100 g of the sample. The other samples showed the following radical scavenging activity 27.5, 38.8, and 40 mg for banana, honey dew, and star fruit, respectively. The ferric reducing antioxidant power of star fruit, pink guava, honey dew, and banana were 451.2, 331.8, 18.4, and 7.9 respectively expressed as Trolox equivalents/100 g of the sample. In addition, the free radical scavenging activity and ferric antioxidant reducing power of the fruits showed positive correlation with their total phenolic content.