



Estimation of Antioxidant Levels in Peels of Pomegranate, Banana, Orange, Lemon, Sweet Lime

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ABSTRACT In the present study antioxidant levels were evaluated in pomegranate (*Punicagranatum*), lemon (*Citrus limon*), sweet lime (*Citrus limetta*), banana (*Musa acuminata*) and orange (*Citrus sinensis*) peels. Level of the various phytochemicals like phenolics, tannins, sugars, proteins, ascorbic acid and flavonoids, present in fruit peels were determined. The antioxidant activity of fruit peels was done by ferric-reducing antioxidant power method (FRAP). The carbohydrate levels present in sweet lime peels (34.68 ± 1.06 mg/ml) was significantly higher than in pomegranate (31.1 ± 1.41 mg/ml) and banana (17.18 ± 0.44 mg/ml) peels ($p \leq 0.05$). Significantly high levels of ascorbic acid were observed in sweet lime peels (14.39 ± 0.78 mg/ml) as compared to lemon (3.05 ± 1.19 mg/ml), orange (3.87 ± 0.77 mg/ml), and pomegranate (3.44 ± 0.16 mg/ml) peels ($p \leq 0.05$). In the present study significantly higher antioxidant and phenolic levels was reported in pomegranate peels (60.93 mg TAE/g) as compared to other investigated fruit peels ($p \leq 0.05$). Highest flavonoid levels were observed in orange peels ($56.6 \text{ mg} \pm 1.48 \text{ AAE/g}$) in comparison to other fruit peels.