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

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KEYWORDS Antioxidant Levels. Indian Fruit Peels

ABSTRACT In the present study antioxidant levels were evaluated in pomegranate (Punica granatum), lemon (Citrus limon), sweet lime (Citrus limetta), banana (Musa acuminate) 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<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<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<0.05). Highest flavonoid levels were observed in orange peels (56.6 mg±1.48 AAE/g) in comparison to other fruit peels.