

Title Phenolics concentration and antioxidant capacity of different fruit tissues of astringent versus non-astringent persimmons

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Abstract

Astringent and non-astringent persimmon fruits were compared for phenolic compounds, and their antioxidant capacity was studied in both peel and pulp. Fruits that were astringent generally had significantly higher concentrations of phenolics and greater capacities in either tissue. Pulp from astringent persimmons had more phenolics and higher capacity whereas the same was true for peels from non-astringent fruits. Among the methods tested for determining antioxidant capacity (ABTS, DPPH, FRAP, TBARS, SRSA, and HRSA), ABTS showed the best correlation with phenolics concentration while HRSA assays were not sufficiently sensitive to distinguish among genotypes or between fruit tissues. Therefore, we suggest that, for monitoring antioxidant capacity in persimmon, the ABTS method is most suitable.