

Title Antioxidant activities of methanol extracts in Asian pear (*Pyrus serotina* Rehd.) at different stages of maturity effect of storage

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Abstract

Methanol extracts of two Asian pear cultivars KS6 and KS11 were examined for their possible antioxidant activities by 2, 2-diphenyl-1-picrylhydrazyl (DPPH) radical scavenging. Antioxidant properties of fruit skin and flesh were monitored during fruit growth period at the various fruit maturity stages and also during 3 months fruit storage period. Three degree of fruit maturity as immature, mature and over mature fruit was considered according to days after full bloom (DAFB). Results indicated that the fruit skin had the higher radical scavenging than the flesh. This activity was 70.65 and 71.88 % in the skin of immature KS6 and, KS11 Asian pears, respectively. According to these results a higher significant difference was observed when compared with other fruit maturity stages and in the same cultivar even after the storage period. Mature harvested fruits were firmer during and following storage period, showed less physiological disorders. In addition, mature and over mature harvested KS6 fruit showed more radical scavenging activities, and lower physiological disorders than KS11 cultivar.