ANTIOXIDANT PROPERTIES OF EDIBLE AND NON-EDIBLE PARTS OF PASSION FRUIT *(Passiflora* sp.*)*

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ABSTRACT

ANTIOXIDANT PROPERTIES OF EDIBLE AND NON-EDIBLE PARTS OF PASSION FRUIT (*Passiflora* sp.)

Antioxidants can delay or inhibit oxidation process and one of the sources of antioxidants come from fruits. The present study was done to evaluate the percentage inhibition of free radicals, TPC and TFC of edible and non-edible parts of *Passiflora* sp. fruit by using the DPPH assay, Folin-Ciocalteu reagent and aluminium chloride colorimetric method respectively. The edible and non-edible parts were extracted by using solvent extraction method and ascorbic acid was used as a control. The concentration of the extracts used are 0.2, 0.4, 0.6, 0.8 and 1.0 mg/ml. The non-edible part showed higher percentage inhibition of free radicals at 1.0 mg/ml (96.73 ± 0.80%) compared to the edible part (88.39 ± 3.99%). At 0.2 mg/ml, the non-edible part showed 70.02 ± 3.76% while the edible part showed 43.44 ± 2.08%. The edible part showed higher TPC at 1.0 mg/ml (113.25 ± 3.63 GAE mg/g) compared to the non-edible part (104.43 ± 0.93 GAE mg/g). At 0.2 mg/ml, the edible part indicated 35.83 ± 2.04 GAE mg/g while non-edible part showed 31.03 ± 8.47 GAE mg/g of phenolics. In the three tests, all concentrations of the edible and non-edible parts were statistically significant with ascorbic acid ($p < 0.0001$), except at the concentration of 0.4 mg/ml in TFC, where there was no significant difference between the edible part and ascorbic acid. In this study, the three tests were dependent on concentration in which higher concentration lead to higher percentage inhibition of free radicals, TPC and TFC.