# Phytochemical Screening and Antioxidant Activities of Selected Tropical Underutilized Fruits

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Fruits are rich sources of bioactive compounds as majority of them have antioxidant properties. The objectives of this study were to screen particular phytochemicals and to determine the antioxidant properties of selected fruit species, namely *Cynometra cauliflora, Psidium cattleianum, Annona squamosa* and *Diospyros discolor.* Phytochemical screening was done using colourimetric qualitative analysis to screen phenol, flavonoid, tannin, alkaloid and saponin. *Cynometra cauliflora* seed and *Psidium cattleianum* fruit extracts were positive for all the tested phytochemicals. Antioxidant properties of fruit extracts were determined by *in vitro* antioxidant assays using 96 well micro plates. Total Phenolic Content, Total Flavonoid Content, Ferric Reducing Antioxidant Power and Oxygen Radical Absorbance Capacity were determined by using standard procedures. All values of antioxidant properties were significantly different for the tested fruits ($p < 0.05$). The highest total phenolic content value was recorded for *Cynometra cauliflora* seed (306±1.64 mg of Gallic Acid Equivalents per g of extract) while the lowest value was recorded for *Annona squamosa* (19.17±4.78 Gallic Acid Equivalents per g of extract). The highest total flavonoid content value was shown by *Psidium cattleianum* (4.76±0.19 Quercetin Equivalents per g of extract) while the lowest value was shown by *Diospyros discolor* (0.35±0.02 Quercetin Equivalants $g^{-1}$ of extract). The highest ferric reducing antioxidant power value was shown by *Cynometra cauliflora* seed (685.38±1.63 Trolox Equivalents per g of extract) while the lowest value was shown by *Cynometra cauliflora* pericarp (30.74±1.3 Trolox Equivalents per g of extract). The highest oxygen radical absorbance capacity value was recorded for *Psidium cattleianum* (549.79±6.91 Trolox Equivalents per g of extract) and the lowest value was recorded by *Annona squamosa* (33.57±0.31 Trolox Equivalents per g of extract). Overall results of the study revealed *Cynometra cauliflora* seed, *Cynometra cauliflora* pericarp, *Psidium cattleianum, Annona squamosa* and *Diospyros discolor* extracts posses antioxidant properties and in general *Cynometra cauliflora* seed and *Psidium cattleianum* have high antioxidant properties.

*Keywords:* Antioxidant, Free radicals, Phytochemicals