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ANTIOXIDANT ACTIVITY AND PHENOLIC COMPOUNDS AVAILABLE IN METHANOLIC SEED EXTRACTS OF THREE *Annona* SPECIES

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Annona species are recognized for their therapeutic potential ages ago. The seeds of *Annona squamosa*, *Annona muricata* and *Annona reticulata* are a primary waste fraction when the flesh part is consumed. The objective of this study was to evaluate the availability of phenolic compounds in methanolic extracts prepared from freeze dried seed powder of the above three species. Crude extracts were analyzed for total phenolic content (TPC), DPPH radical scavenging assay and total flavonoid content (TFC) using UV/Vis spectrophotometric methods. DPPH radical scavenging activities of seed extracts of *A. reticulata*, *A. muricata* and *A. squamosa* were 2.55%, 21.57% and 47.15%, respectively. The TFC was lower in *A. reticulata* [0.92 mg rutin equivalent (RE) / g dry weight (dw)] and *A. muricata* (1.95 mg RE / g dw) than *A. squamous* (7.37 mg RE / g dw). The TPC recorded for *A. muricata*, *A. squamosa* and *A. reticulata* were 7.59, 281.28 and 463.51 µg gallic acid equivalent per g dw of seed, respectively. The data obtained in the present study did not show a good correlation between the radical scavenging activity and the phenolic content. However, it can be concluded that *A. squamosa*, *A. reticulata* and *A. muricata* seed extracts be good sources of phenolic compounds, and may be used effectively for functional food product and nutraceutical development through further characterization of bioactive compounds.

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Keywords: *Annona*, Flavonoids, Functional food, Methanolic, Seed