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**Determination of Antioxidant Activity of the Aqueous Extract of Corm of *Musa paradisiaca* L.**

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Most often grown in tropical and subtropical regions, *Musa paradisiaca* L. is renowned for its excellent nutritional content. Corm of *Musa paradisiaca* is known to be used in treating many diseases in traditional medicine in Sri Lanka. In this study the antioxidant properties of the aqueous extract which was prepared according to the method preparing decoction (“Kasaya”) was evaluated using the (DPPH) free radical scavenging assay. Antioxidant-rich decoction which contains six therapeutic herbs such as *Musa paradisiaca* L., *Sida cordifolia* L., *Phyllanthus emblem* L., *Santalum album* L., *Tribulus terrestris* L., and *Salacia reticulata* L. are used to make the decoction. These plants already contain antioxidant properties in certain of their parts. IC<sub>50</sub> values calculated for the standard, aqueous extract and decoction were 0.052±0.012 mg/mL, 0.096±0.015 mg/mL and 0.056±0.111 mg/mL respectively. At higher concentrations, the percentage free radical scavenging activity in the aqueous plant extract and the decoction displayed similar values, but at lower concentrations, the free radical scavenging activity of the decoction was noticeably higher than that of the corm of *Musa paradisiaca*'s aqueous extract. In addition, total phenolic content and total flavonoid content of both the aqueous extract and the decoction were examined compared with the respective standards. The Folin-Ciocalteu method is used to calculate the total phenolic content in the extracts as Gallic acid equivalents (GAE). The phenolic content of the Aqueous extract and decoction showed as 23.80±0.06 mg GAE/g and 56.04 ±0.07 mg GAE/g respectively. The decoction has a noticeably higher total phenolic content than the aqueous extract. The amount of total flavonoids in the extracts was measured using Quercetin equivalents (QE). The flavonoid content of the aqueous plant extract resulted in 52.39±0.06 mg QE/g and the decoction resulted as 76.04±0.07 mg QE/g. In comparison, the flavonoid content of the decoction was significantly higher than that of the aqueous plant extract.

**Keywords:** Antioxidant activity, Total flavonoid content, Total phenolic extract, *Musa paradisiaca* L.